Advisory Opinion

Advisory Opinion No. 2015-600037

Tokyo, Japan
Demandant TR & K CO. LTD.

Tokyo, Japan
Attorney MATSUDA, Junichi

Aichi, Japan
Demandee KENKO SHIEN CENTER CO. LTD.

Chiba, Japan
Patent Attorney TAKAHASHI, Yohei

The case of the advisory opinion on the technical scope of Japanese Patent No. 5659337 between the parties above is stated and concluded as follows.

Conclusion

The "tabletop hydrogen gas generator" shown in the drawings and the explanatory documents regarding Article A does not fall within the technical scope of the invention of Japanese Patent No. 5659337.

Reasons

No. 1 Object of the demand / History of the procedures

The demand for the advisory opinion of the case was filed on Nov. 18, 2015, and the gist of the demand is to demand an advisory opinion that the tabletop hydrogen gas generator shown in the drawings and the explanatory documents regarding Article A does not fall within the technical scope of the patent invention of Japanese Patent No. 5659337 (hereinafter referred to as "the patent invention").

In response to this, the Demandee was sent a duplicate of the written request for the advisory opinion on Dec. 2, 2015 and given an opportunity to submit a written reply within a designated period, then a written reply was submitted by the Demandee on Jan. 12, 2016.

No. 2 The patent invention

According to the scope of the claims, the description, and the drawings affixed to the application, the patent invention is specified by the matters described in Claim 1 of the scope of claims. Claim 1 reads as follows in accordance with constituent components accompanied with a reference symbol.

"E A tabletop hydrogen gas generator, comprising:

A an electrolysis plate including: an ion exchange membrane with no passage hole for liquid and gas; each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively; and a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively; and

B an electrolysis tank partitioned by the electrolysis plate as a partition plate, the electrolysis tank including a hydrogen gas generation tank and an oxygen gas generation tank respectively storing pure water for electrolysis,

C a periphery of the ion exchange membrane extends toward an outer side in relation to peripheries of the pair of electrode plates, and wherein

D the electrolysis tank includes

two division cases made by dividing a closed container in a vertical direction, and

F a fastening part to integrally fasten the two division cases in a state sandwiching, by peripheries of the two division cases, only a periphery of the ion exchange membrane so as to use as a soft gasket the periphery of the ion exchange membrane located at the outer side than the peripheries of the pair of electrode plates." (Hereinafter, the separately described constituent components are referred to as "constituent component A" and the like)

No. 3 Article A

1 Explanation of Article A

The paragraph "(4) Explanation of Article A" of "6 Statements of the demand" of the written request for the advisory opinion includes the following statements regarding Article A.

"E2 A tabletop hydrogen gas generator, comprising:

A2 an electrolysis plate including an ion exchange membrane with no passage

hole for liquid and gas, and each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively;

B2 an electrolysis tank partitioned by the electrolysis plate as a partition plate, the electrolysis tank including a hydrogen gas generation tank and an oxygen gas generation tank respectively storing pure water for electrolysis,

C2 a periphery of the ion exchange membrane extends toward an outer side in relation to peripheries of the pair of electrode plates, and wherein

D2 the electrolysis tank includes: two division cases of shapes obtained by dividing a closed container in a lateral direction; a fastening part to integrally fasten the two division cases in a state sandwiching, by peripheries of the two division cases, a periphery of the ion exchange membrane and an O-ring; and a pair of sandwiching parts, formed in each of the two division cases, to hold, inside the container, the pair of electrode plates in a sandwiching manner in a state of the pair of electrode plates adhering to both surfaces of the ion exchange membrane."

"Explanation of A2

As shown in FIG. 2 and FIG. 5 of the drawings of Article A, which are part of materials (hereinafter referred to as “previously-disclosed materials”), which have been already disclosed to the Demandee's Agent from Demandant prior to the present demand for the advisory opinion of the case (September 1, 2015), Article A comprises an electrolysis plate including: an ion exchange membrane with no passage hole for liquid and gas; and each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively."

"Explanation of B2

As shown in FIG. 1 and FIG. 5 of the drawings of Article A, which are part of the previously-disclosed materials, Article A comprises an electrolysis tank having a hydrogen gas generation tank and an oxygen gas generation tank, separated by the electrolysis plate as a partition plate and each storing pure water for electrolysis."

"Explanation of C2

As shown in FIG. 2 and FIG. 5 of the drawings of Article A, Article A comprises a periphery of an ion exchange membrane which extends to the outer side than the peripheries of a pair of electrode plates."

"Explanation of D2

As shown in FIG. 3,4 and FIG. 2, 5 of the drawings of Article A that are part of the previously-disclosed materials, Article A comprises an electrolysis tank which includes: two division cases of shapes obtained by dividing a closed container in a lateral direction; a fastening part to integrally fasten the two division cases in a state sandwiching, by peripheries of the two division cases, a periphery of the ion exchange membrane and an O-ring; and a pair of sandwiching parts, formed in each of the two division cases, to hold, inside the container, the pair of electrode plates in a sandwiching manner in a state of the pair of electrode plates adhering to both surfaces of the ion exchange membrane (portions indicated as "The portions to sandwich an electrode plate between cells" in FIG. 3 and FIG. 4 of the drawings of Article A)."

"Explanation of E2

Article A is a tabletop hydrogen gas generator."

2 The drawings of Article A

The followings are drawings and statements of explanatory documents of Article A affixed to the written request for the advisory opinion (hereinafter, referred to as "Explanatory document").

(1) Regarding FIG. 3

(1-1) Explanatory document includes the following statements.

A "FIG. 3 is a photograph of one of two division cases (cells) constituting an electrolysis tank" (Lines 3-4)

B "In one of the two division cases, a concave portion whose peripheral border is surrounded by the periphery of the division case is formed, and, inside the concave portion, <<portions to sandwich an electrode plate between cells>> are formed (refer to FIG. 3)." (Lines 7-9)

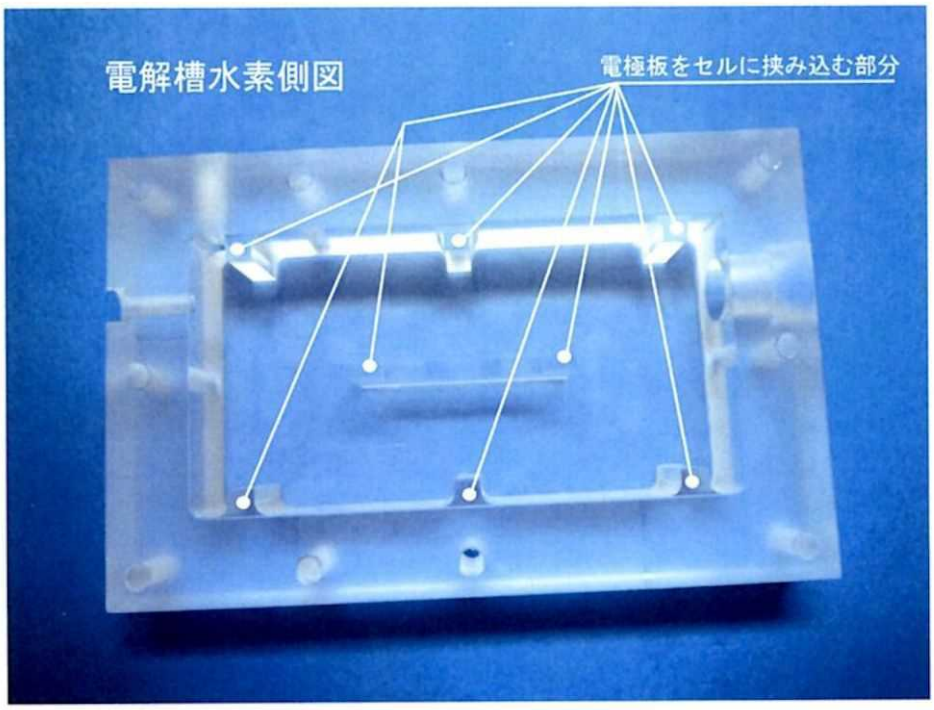
While a "division case" is also called a "cell" in Explanatory document, hereinafter the phrase "division case" is used instead of "cell".

(1-2) FIG. 3 of the drawings of Article A

FIG. 3

"

図３



"

図３　FIG. 3
電解槽水素側図　　Figure of hydrogen-side electrolysis tank
電極板をセルに挟み込む部分　　Portions to sandwich an electrode plate between cells

Taking into consideration the statements of the above-mentioned (1-1) of Explanatory document, the following can be understood on the basis of FIG. 3.

(A) Although the title of FIG. 3 is a “hydrogen-side figure of electrolysis tank”, according to the statements of the above-mentioned (1-1) A it is understood that the word "hydrogen-side electrolysis tank" means "one of the two division cases" constituting an "electrolysis tank".

(B) In the center of "one of the two division cases", a "concave portion" is formed, and, in the peripheral border of the above-mentioned "one of the two division cases", a "periphery" is formed in a manner surrounding the above-mentioned "concave portion".

(C) In the "concave portion" of "one of the two division cases", in its fringe portion and center, a total of eight "portions to sandwich an electrode plate between

cells" (hereinafter, referred to as "portions to sandwich an electrode plate between division cases" since "cell" means "division case") are formed in a manner protruding from the "concave portion" and in a way continuing from the "one of the two division cases".

(D) A plurality of holes that allow a bolt to pass entirely therethrough are formed on the "periphery" of "one of the two division cases". They are examined in the paragraph (5).

(2) Regarding FIG. 4

(2-1) The followings are statements in Explanatory document.

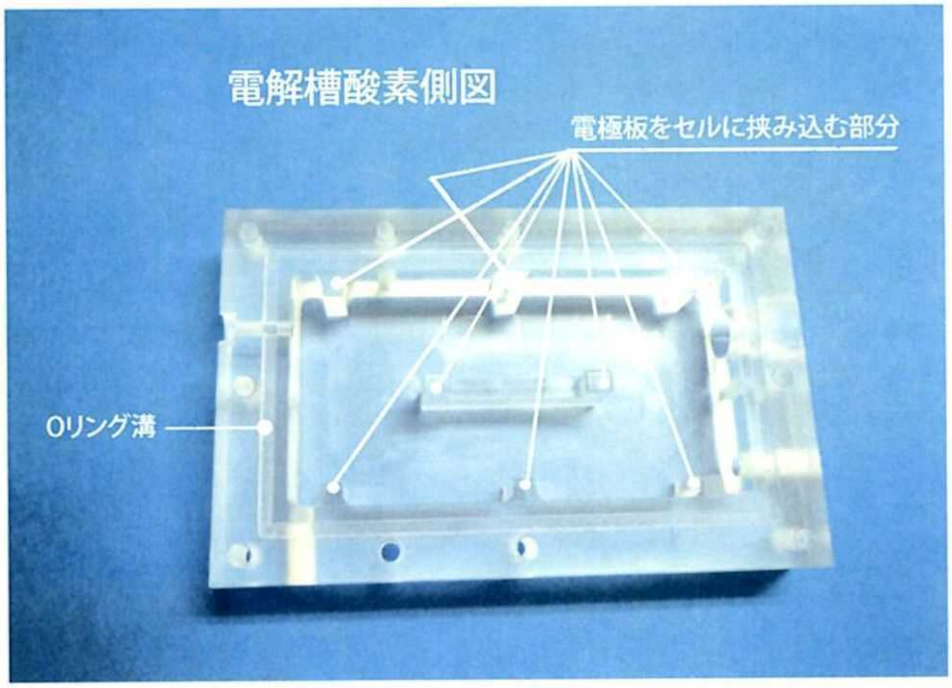
A "FIG. 4 is a photograph of the other of the two division cases (cells)" (Line 4)

B "In the other of the two division cases, a concave portion whose peripheral border is surrounded by the periphery of the division case in question is formed, and, in addition, an <<O-ring groove>> to position an O-ring is formed in the periphery, and "portions to sandwich an electrode plate between division cases" are formed inside the concave portion, respectively (refer to FIG. 4)." (Lines 10-12)

(2-2) FIG. 4 of the drawings of Article A

FIG. 4

図４



"

図４　FIG. 4
電解槽酸素側図　　Figure of oxygen-side electrolysis tank
電極板をセルに挟み込む部分　　Portions to sandwich an electrode plate between cells
Ｏリング溝　O-ring groove

Taking into consideration the statement of the above-mentioned (2-1) of Explanatory document, the following matters can be understood on the basis of FIG. 4.

(A) Although the title of FIG. 4 is an “oxygen-side figure of electrolysis tank", according to the statements of the above-mentioned (2-1) A it is understood that the word "oxygen-side electrolysis tank" means "one of the two division cases" constituting an "electrolysis tank".

(B) In the center of "the other of the two division cases", a "concave portion" is formed, and a "periphery" is formed in the peripheral border of the above-mentioned "the other of the two division cases" in a manner surrounding the above-mentioned "concave portion".

(C) In the "concave portion" of "the other of the two division cases", in its fringe portion and center, a total of eight "portions to sandwich an electrode plate between cells" (hereinafter, referred to as "portions to sandwich an electrode plate between division cases" since "cell" means "division case") are formed in a manner protruding from the "concave portion" and in a way continuing from "the other of the two division cases".

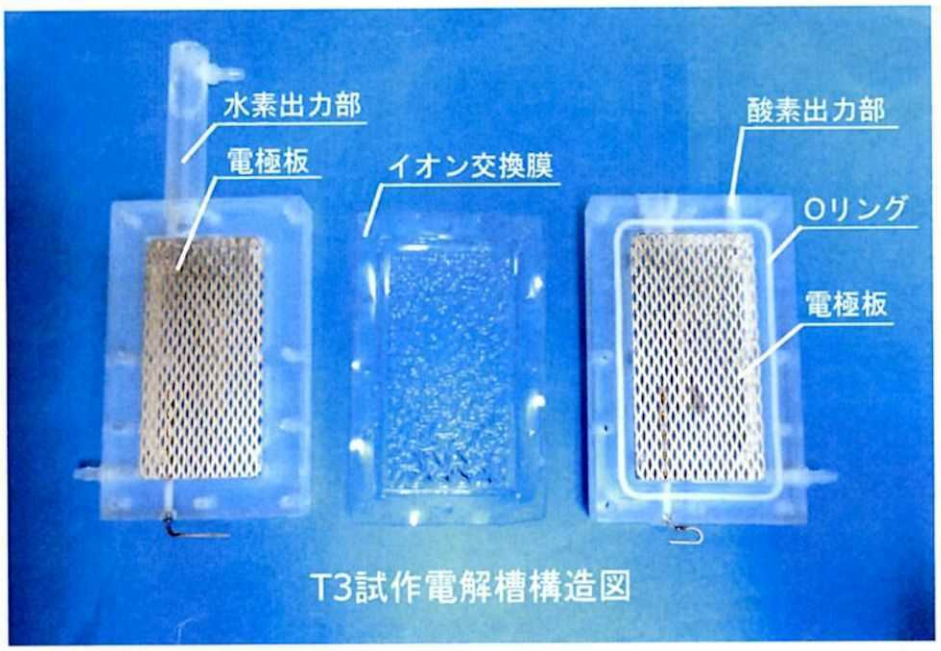
(D) A plurality of holes that allow to pass a bolt through and an "O-ring groove" are formed on the "periphery" of "one of the two division cases". They are examined in the paragraph (5).

(3) Regarding FIG. 2
(3-1) Explanatory document has the following statement.

A "FIG. 2 is a photograph of a dismantled electrolysis tank" (Line 3)

(3-2) FIG. 2 of Article A
"

図２



"

図２　FIG. 2
水素出力部　Hydrogen output portion
電極板　Electrode plate
イオン交換膜　Ion exchange membrane
酸素出力部　Oxygen output portion
Ｏリング　O-ring
Ｔ３試作電解槽構造図　Structural drawing of T3-prototype electrolysis tank

Taking into consideration the above-mentioned (1) and (2), the following matters can be understood on the basis of FIG. 2.

(A) Although the title of FIG. 2 is "Structural drawing of T3-prototype electrolysis tank", since the "Structural drawing of T3-prototype electrolysis tank" is also identical to the "photograph of a dismantled electrolysis tank" according to the statements of the above-mentioned (3-1) A, it can be said that FIG. 2 shows a "hydrogen-side of electrolysis tank" shown in FIG. 3 (or "one of the two division cases" and an "oxygen-side of electrolysis tank") shown in FIG. 4 (or "the other of the two division cases").

(B) FIG. 2 is related to "a photograph of a dismantled electrolysis tank" as explained in the above-mentioned (A), and the "electrolysis tank" is dismantled into

three components consisting of a left side component, a central component, and a right side component as shown in FIG. 2. Taking into consideration that the left side component among the above-mentioned three components has a "hydrogen output portion" and taking into consideration the shape of its rectangular-shaped portion, the left side component falls under the "hydrogen-side electrolysis tank" shown in FIG. 3 or "one of the two division cases". The central component of FIG. 2 is an "ion exchange membrane". Taking into consideration that the right side component has an "oxygen output portion" and an "O-ring" and taking into consideration the shape of its rectangular-shaped portion, the right side component shown in FIG. 2 falls under the "oxygen-side electrolysis tank" shown in FIG. 4 or "the other of the two division cases".

(C) An "electrode plate" is located at both of the "concave portion" of "one of the two division cases" and the "concave portion" of "the other of the two division cases". An "O-ring" is located at the "periphery" of "oxygen-side electrolysis tank" or "the other of the two division cases" in a manner surrounding the "electrode plate".

(D) The external form of the "ion exchange membrane" is slightly smaller than the external form of each of "one of the two division cases" but "the other of the two division cases" is slightly larger than the external form of each of the above-mentioned two "electrode plates" and the external form of the "O-ring".

(4) Regarding FIG. 5

(4-1) There are the following statements in Explanatory document.

A "FIG. 5 shows a structural drawing including a plan view, a front view, a sectional view, an exploded side view and an exploded perspective view of the electrolysis tank." (Lines 4-6)

B "The concave portion of one of the two division cases is partitioned by an electrolysis plate composed of an ion exchange membrane and a pair of electrode plates to form a hydrogen gas generation tank, and the concave portion of the other of the two division cases is partitioned by the electrolysis plate to form an oxygen gas generation tank." (Lines 16-18)

(4-2) FIG. 5 in the drawings of Article A

FIG. 5

"

図５

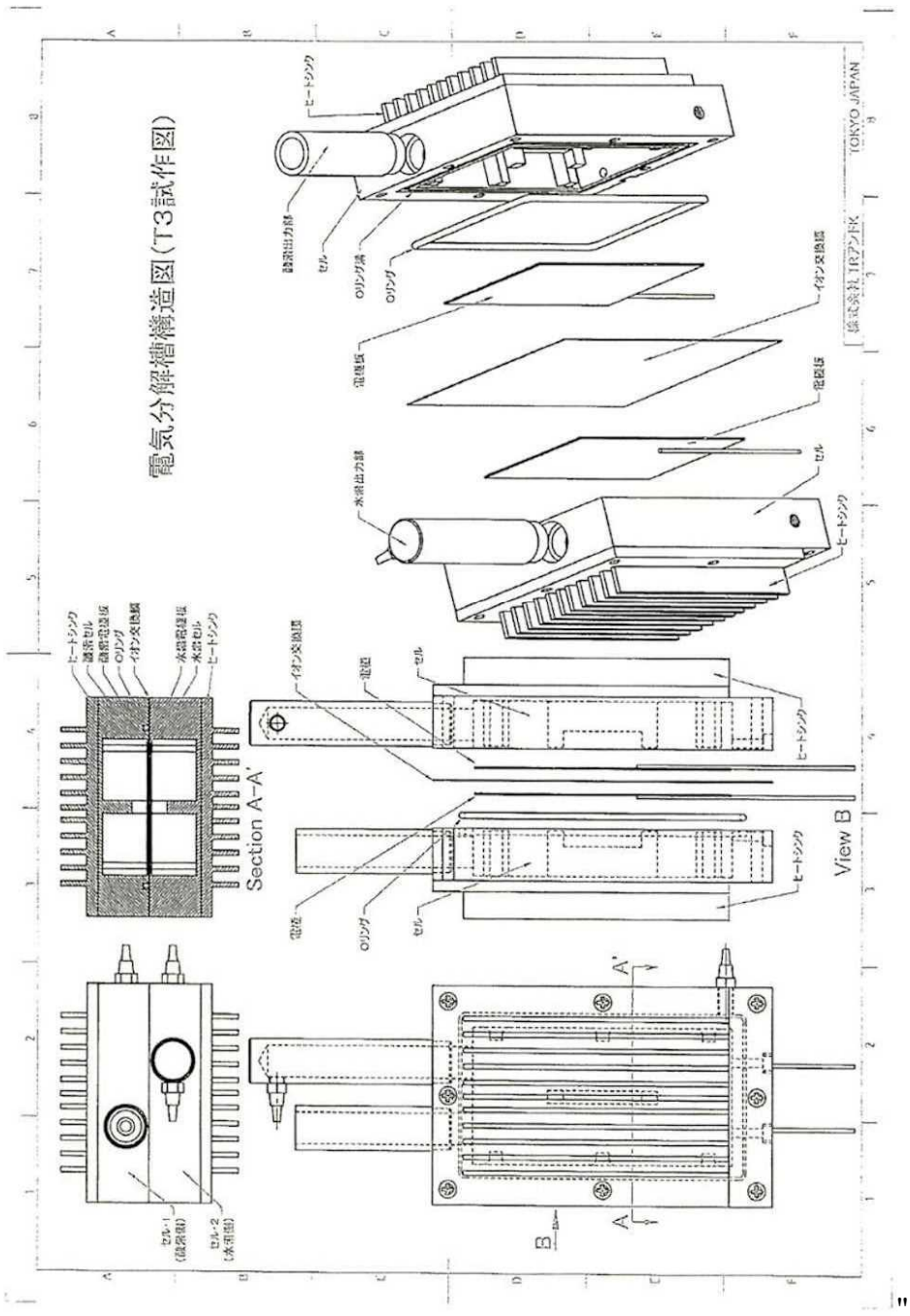


図５　FIG. 5

電気分解槽構造図（Ｔ３試作図）　Structural drawing of an electrolysis tank (Figure of T3 prototype)

ヒートシンク　Heat sink

酸素出力部	Oxygen output portion
セル	Cell
Ｏリング溝	O-ring groove
Ｏリング	O-ring
電極板	Electrode plate
水素出力部	Hydrogen output portion
酸素セル	Oxygen cell
酸素電極板	Oxygen electrode plate
イオン交換膜	Ion exchange membrane
水素電極板	Hydrogen electrode plate
水素セル	Hydrogen cell
電極	Electrode
セル・１（酸素側）	Cell-1 (oxygen side)
セル・２（水素側）	Cell-2 (hydrogen side)
株式会社　ＴＲアンドＫ	TR and K Co. Ltd.

According to the statements of the above-mentioned (4-1) of Explanatory document, the following matters can be understood on the basis of FIG. 5.

(4-2-1) Five drawings shown in FIG. 5

(A) While the title of FIG. 5 is "Structural drawing of an electrolysis tank (Figure of T3 prototype)", according to the statements of the above-mentioned (4-1) A, FIG. 5 consists of five drawings of a plan view, a front view, a sectional view, an exploded side view and an exploded perspective view of an electrolysis tank.

(B) Among the five drawings of FIG. 5, a dismantled electrolysis tank is shown in two drawings of the right side and the center bottom part. The right side drawing shows a perspective view or an exploded perspective view and the remaining center bottom part drawing is deemed to show an exploded side view. Since " Section A-A' " is indicated in the center top drawing, it is deemed to show a sectional view at the position A-A' of the bottom left drawing. As for the remaining two drawings, according to the exploded perspective view on the right, the upper-left side drawing shows the

electrolysis tank from the upper viewpoint. Thus, it should be a plan view. Regarding the last remaining bottom left drawing, where an arrow B is indicated and the drawing from a viewpoint at the arrow B can be said to show an exploded side view of the center bottom part with "View B", since the figure of the bottom left side is a figure obtained from the viewpoint from the side direction vertical to the above-mentioned exploded side view, the bottom left figure is deemed to show a front view.

(4-2-2) The exploded perspective view in FIG. 5

(A) On the basis of the exploded perspective view shown in the right side of FIG. 5, when the "electrolysis tank" is dismantled, a plurality of components including such as, in order from right, a "heat sink", a "cell" with "O-ring groove" and an "oxygen output portion", an "O-ring", an "electrode plate", an "ion exchange membrane", an "electrode plate", and a "cell" with a "heat sink" and a "hydrogen output portion". The "electrolysis tank" seems to consist of these plurality of components.

(B) According to (B) and (C) of the above-mentioned (3-2), it is understood that the "cell" having the "heat sink", the "oxygen output portion", and the "O-ring groove" falls under the "oxygen-side electrolysis tank". That is, "the other of the two division cases", and the "cell" having the "heat sink" and the "hydrogen output portion" falls under the "hydrogen-side electrolysis tank" or "one of the two division cases". Therefore, on the basis of the above-mentioned (A), it is understood that FIG. 5 shows a structure provided by stacking the "O-ring", "electrode plate", "ion exchange membrane", and "electrode plate" are sandwiched between "one of the two division cases" and "the other of the two division cases".

(C) Since "the other of the two division cases" is the "oxygen-side electrolysis tank", and "one of the two division cases" is the "hydrogen-side electrolysis tank", it can be understood that according to the exploded perspective view in the right side of FIG. 5, the "electrolysis tank" is formed by joining "the other of the two division cases" and "one of the two division cases" in the horizontal direction. Conversely, it can be said that "the other of the two division cases" and "one of the two division cases" mentioned above have shapes obtained by cutting the "electrolysis tank" in the horizontal direction and dividing it vertically.

(4-2-3) The exploded side view in FIG. 5

(A) On the basis of the exploded side view in the center bottom part of FIG. 5, it can be understood that, in order from right, a "cell" having a "heat sink", an "electrode", an "ion exchange membrane", an "electrode", an "O-ring", and a "cell" with a "heat

sink" are arranged.

(B) Since the exploded perspective view and the exploded side view in FIG. 5 are based on the same electrolysis tank and obtained from the viewpoint from different directions, the above-mentioned "electrode" shown in the exploded side view corresponds to the "electrode plate" shown in the exploded perspective view. In addition, according to the above-mentioned (4-2-2) (A), the "cell" in the left end that is adjacent to the "O-ring" corresponds to "oxygen-side electrolysis tank"'. That is, "the other of the two division cases" and the "cell" in the right edge corresponds to "hydrogen-side electrolysis tank" or "one of the two division cases".

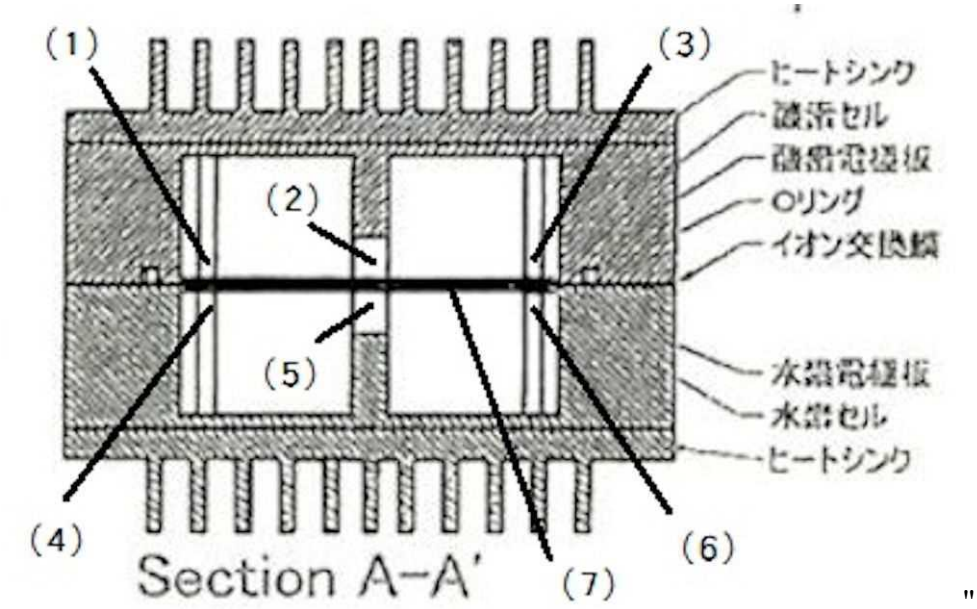
(C) On the basis of the exploded side view in the central bottom part of FIG. 5, it can be understood that two "electrodes" or two "electrode plates" are arranged on both sides of the "ion exchange membrane", and the size (the length in the longitudinal direction of the drawing) of the "ion exchange membrane" is larger than that of each of the two "electrode plates", and the "periphery" of the "ion exchange membrane" extends further outside than the above-mentioned two "electrode plates" (in the up-and-down direction in the drawing). And, it can be also seen that the "periphery" of "one of the two division cases" and the "periphery" of "the other of the two division cases" are positioned such that they sandwich the "periphery" of the "ion exchange membrane" extending further outside than the "electrode plate" and at least the upper end and the lower end of the above-mentioned "O-ring".

(4-2-4) Drawings of sectional and front view in FIG. 5

(A) The center top drawing of the sectional view in FIG. 5 is shown again with reference signs (1)-(7) for explanation.

The drawing of sectional view in FIG.5

"



ヒートシンク	Heat sink
酸素セル	Oxygen cell
酸素電極板	Oxygen electrode plate
Oリング	O-ring
イオン交換膜	Ion exchange membrane
水素電極板	Hydrogen electrode plate
水素セル	Hydrogen cell

(B) On the basis of the sectional view of the above-mentioned (A), it can be seen that an "area indicated in black" accompanied with reference sign (7) is arranged between the "oxygen cell" and the "hydrogen cell" shown by hatching (diagonal line patterns). And there are “outlined white rectangular areas” at three points accompanied with reference signs (1)-(3) in both ends of the upper surface of the “area indicated in black” and the center and those at three points accompanied with reference signs (4)-(6) in the lower surface of the “area indicated in black” and the center. It can be said that the "area indicated in black" is held at a total of these six points in a sandwiched manner.

(C) Regarding the "area indicated in black" of the above-mentioned (B), although there is no explanation in the sectional view, it is a sectional view at the position A-A' of the front view in the bottom left side of FIG. 5. According to the exploded side view in the central bottom part of FIG. 5, at the position A-A' of the

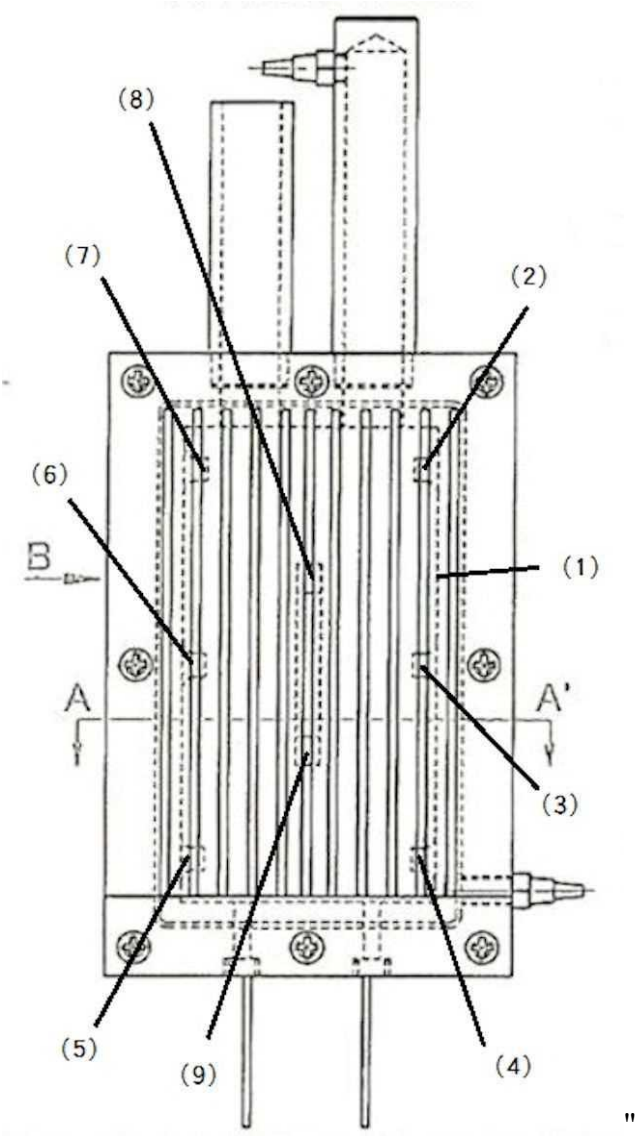
electrolysis tank, an "ion exchange membrane" and two "electrode plates" are arranged between the two cells. Therefore, it is understood that the above-mentioned "area indicated in black" is an "electrolysis plate" where the two "electrode plates" are made to adhere to the both surfaces of the "ion exchange membrane". Meanwhile, in the sectional view in question, the statements of "Ion exchange membrane", "Oxygen electrode plate", and "Hydrogen electrode plate" are indicated together with leader lines, and, thus, it is supported that the "area indicated in black" is an "electrolysis plate".

(D) Regarding the "outlined white rectangular areas" of the above-mentioned (B), although there is no explanation in the sectional view, it is understood that, on the basis of examination of the following (E)-(G), they fall under "portions to sandwich an electrode plate between division cases" formed each of the "concave portions" of the "two division cases" shown in FIG. 3 and FIG. 4.

(E) The drawing of front view located in the bottom left side of FIG. 5 is shown again, with reference signs (1)-(9) for description being added.

FIG. 5 Front view

"



"

(F) On the basis of the front view of the above-mentioned (E), it is understood that an area surrounded with a dotted line accompanied with reference sign (1) that is slightly smaller than the area of the heat sink expressed by a plurality of vertical stripes indicates the "concave portion" of a "division case", and, thus, it can be seen that there exist a total of eight rectangular areas surrounded with dotted lines, the eight rectangular areas including: six areas shown by reference signs (2)-(7) in fringe portions of the area surrounded with dotted line accompanied with reference sign (1); and two areas accompanied with reference signs (8)-(9) in the center of the area accompanied with reference sign (1).

(G) It is obvious that the eight rectangular areas that have been described in the above-mentioned (F) fall under the eight "portions to sandwich an electrode plate between division cases" shown in FIG. 3 and FIG. 4, and it is understood that part of the

above-mentioned rectangular areas are seen in the sectional view in position A-A' of the front view in question as the above-mentioned "outlined white rectangular areas".

(H) It is obvious that the "oxygen cell" and the "hydrogen cell" described in the above-mentioned (B) fall under the "oxygen-side electrolysis tank" or "the other of the two division cases" and the "hydrogen-side electrolysis tank" or "one of the two division cases", respectively. In addition, on the basis of the examination of the above-mentioned (C), the "area indicated in black" described in the above-mentioned (B) is an "electrolysis plate" in a state that the two "electrode plates" are made to adhere to both surfaces of the "ion exchange membrane". Then, the "outlined white rectangular areas" described in the above-mentioned (B) are, on the basis of the examination of the above-mentioned (D), "portions to sandwich an electrode plate between division cases" formed in the "concave portion" of each of the "two division cases".

(I) When the above-mentioned examinations are put together, it can be said that, by means of "portions to sandwich an electrode plate between division cases" formed in each of the "concave" of the "two division cases", the "electrolysis plate" is held in a sandwiched manner so as to make the two "electrode plates" be in a state adhering to both surfaces of the "ion exchange membrane".

(J) On the basis of the examination of the above-mentioned (I), the "electrolysis plate" is held in a sandwiched manner by means of "portions to sandwich an electrode plate between division cases" formed in each of the "concave portions" of the "two division cases", and, it is also possible to express this as, as examined in the above-mentioned (4-2-2) (C), the "electrolysis tank" is partitioned by the "electrolysis plate", when taking into consideration that the "electrolysis tank" is formed by joining the "two division cases" in the horizontal direction. According to the statements referred to in the above-mentioned (4-1) B of Explanatory document, it is understood that the "concave portion" in the side of the "oxygen cell" partitioned by the "electrolysis plate" or "the other of the two division cases" forms the "oxygen gas generation tank" or the "concave portion" in the side of the "hydrogen cell" partitioned by the "electrolysis plate" or "one of the two division cases" forms the "hydrogen gas generation tank".

(5) Regarding FIG. 1

(5-1) Explanatory document comprises the following statements.

A "FIG. 1 shows an external appearance photograph of an electrolysis tank provided inside the housing of Article A, which is a tabletop hydrogen gas generator." (Lines 1-2)

(5-2) FIG. 1 of Article A

FIG. 1

"

図１

"

図１　FIG. 1

電解セル外観図　External view of electrolysis cell

According to the statement of the above-mentioned (5-1) of Explanatory document, the followings can be understood on the basis of FIG. 1.

(A) Although the title FIG. 1 is "External view of electrolysis cell", FIG.1 shows "an external appearance photograph of the electrolysis tank provided inside the housing of Article A, which is a tabletop hydrogen gas generator" according to the statement of the above-mentioned (5-1) A.

(B) On the basis of FIG. 1, it can be understood that the electrolysis tank is formed by two "division cases" each provided with a heat sink being fastened using a plurality of bolts and nuts in the side-surface periphery of the electrolysis tank.

3 Finding of Article A based on the above-mentioned 1 and 2

(1) Regarding constitution A2

As explained by Demandant in "Explanation of A2" of the above-mentioned 1, it is understood that Article A includes "an ion exchange membrane with no passage hole for liquid and gas, and each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively".

Here, the "electrolysis plate" with "each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively" is supported by the matters examined in the above-mentioned 2 (4-2-4) (A).

While the written request for the advisory opinion has no specific explanation about the "ion exchange membrane" of Article A having no passage hole for liquid or gas, since there are no disputes between the parties concerned, in this advisory opinion, the allegations of the Demandant are accepted just as they are and the constitution A2 is assumed to be above-mentioned.

(2) Regarding constitution B2

As explained by Demandant in the above-mentioned 1 "Explanation of B2", it is understood that Article A includes "an electrolysis tank partitioned by the electrolysis plate as a partition plate, the electrolysis tank including a hydrogen gas generation tank and an oxygen gas generation tank respectively storing pure water for electrolysis".

Here, the structure that "electrolysis tank" is "partitioned by the electrolysis plate as a partition plate" and it is "a hydrogen gas generation tank and an oxygen gas generation tank" is supported by the matters examined in the above-mentioned 2 (4-2-4) (I).

Although, regarding the structure that the "hydrogen gas generation tank and oxygen gas generation tank" of Article A "store" "pure water", there is no specific explanation in the written request for the advisory opinion, it is a common general technical knowledge that it is necessary to store water that is a basic ingredient in an electrolysis tank in order to generate hydrogen gas and oxygen gas by electrolysis. Besides there are no disputes between the parties concerned. Therefore, in this advisory opinion, the allegation of the Demandant is accepted just as it is and the finding of the body is mentioned above.

(3) Regarding constitution C2

As explained by Demandant in "Explanation of C2" of the above-mentioned 1, it

is understood that, in Article A, "a periphery of the ion exchange membrane extends toward an outer side than peripheries of the pair of electrode plates".

Here, the structure that "a periphery of the ion exchange membrane extends toward an outer side in relation to peripheries of the pair of electrode plates" is supported by the matters examined in the above-mentioned 2 (4-2-3) (C).

(4) Regarding the structure that the electrolysis tank has division cases and a fastening part within constitution D2

As explained by Demandant in "Explanation D2" of the above-mentioned 1, it is understood that, in Article A, the "electrolysis tank" includes "two division cases of shapes obtained by dividing a closed container in a lateral direction; a fastening part to integrally fasten the two division cases in a state sandwiching, by peripheries of the two division cases, a periphery of the ion exchange membrane and an O-ring".

Then, the structure that the "electrolysis tank" includes "two division cases of shapes obtained by dividing a closed container in a lateral direction" is supported by the matters examined in the above-mentioned 2 (4-2-2) (C). Meanwhile, here, that "two division cases" have "a shape obtained by dividing a closed container in a lateral direction" indicates that, as examined in the above-mentioned 2 (4-2-2) (C), "the other of the two division cases" and "one of the two division cases" are of "a shape obtained by" dividing "an electrolysis tank" that is a "closed container" "in the horizontal direction by cutting it vertically".

In addition, regarding the "electrolysis tank", the structure of "peripheries of the two division cases sandwiching a periphery of the ion exchange membrane and an O-ring" is supported by the matters examined in the above-mentioned 2 (3-2) (D) and (4-2-3) (C).

Furthermore, the structure that the structure that "electrolysis tank" has "a fastening part to integrally fasten the two division cases" is supported by the matters examined in the above-mentioned 2 (5-2) (B) if "bolts and nuts" are seen as "a fastening part to integrally fasten the two division cases".

(5) Regarding the structure that the electrolysis tank has sandwiching part within constitution D2

As explained by Demandant in "Explanation of D2" of the above-mentioned 1, it is understood that, in Article A, the "electrolysis tank" has "a pair of sandwiching parts, formed in each of two division cases, to hold, inside the container, the pair of electrode plates in a sandwiching manner in a state of the pair of electrode plates adhering to both

surfaces of the ion exchange membrane".

Here, the above-mentioned "a pair of sandwiching parts" is a term to collectively call "portions to sandwich an electrode plate between division cases" formed in a way continuing from "one of the two division cases" and "portions to sandwich an electrode plate between division cases" formed in a way continuing from "the other of the two division cases", and it can be understood that it is one indicating that it has a function to make, when the "two division cases" are integrally fastened by the fastening part, by the above-mentioned two parts adding force to the point of the "electrolysis plate" from one side and from the opposite side at the same time, "the pair of electrode plates adhere to both surfaces of the ion exchange membrane". Therefore, it is supported by the matters examined in the above-mentioned 2 (4-2-4) (A)-(I) that the "electrolysis tank" has "a pair of sandwiching parts that are formed in each of two division cases, and hold, inside the container, the pair of electrode plates in a sandwiching manner in a state of the pair of electrode plates adhering to both surfaces of the ion exchange membrane".

(6) Regarding constitution E2

As explained by Demandant in "Explanation of E2" of the above-mentioned 1, it is understood that Article A is a "tabletop hydrogen gas generator".

Although there is no specific explanation in the written request for the advisory opinion about whether Article A is a hydrogen gas generation device of a desktop type or not, it is a matter over which there are no disputes between the parties concerned, and, thus, in this advisory opinion, the allegation of the Demandant is accepted just as it is and the finding of the body regarding constitution E2 is mentioned above.

(7) Article A

Putting together the described matters of and understood matters of the above-mentioned 1 and 2, and the examinations of the above-mentioned (1)-(6), Article A is interpreted as follows in accordance with constitutions accompanied with reference signs in a manner corresponding to the constituent components of the patent invention.

"e A tabletop hydrogen gas generator, comprising:

a an electrolysis plate including an ion exchange membrane with no passage hole for liquid and gas, and each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively;

b an electrolysis tank partitioned by the electrolysis plate as a partition plate, the electrolysis tank including a hydrogen gas generation tank and an oxygen gas generation

tank respectively storing pure water for electrolysis,

c a periphery of the ion exchange membrane extends toward an outer side in relation to peripheries of the pair of electrode plates,

d the electrolysis tank includes

two division cases of shapes obtained by dividing a closed container in a lateral direction

f a fastening part to integrally fasten the two division cases in a state sandwiching, by peripheries of the two division cases, a periphery of the ion exchange membrane and an O-ring, and

g a pair of sandwiching parts, formed in each of the two division cases, to hold, inside the container, the pair of electrode plates in sandwiching manner in a state of the pair of electrode plates adhering to both surfaces of the ion exchange membrane." (Hereinafter, the separately described constitutions are referred to as "constitution a" and the like)

(8) Regarding acknowledgment of Article A alleged by the Demandee

A In the body, Article A is understood as the above-mentioned (7), and the acknowledgment of Article A that has been alleged by the Demandee was not adopted. The following B-D are the reason.

B In 7 (1) (iv) of the written reply, the Demandee has described that "the Demandee denies the statement contents of <<A2>> and the paragraph of <<Explanation of A2>> and <<D2>> and the paragraph of <<Explanation of D2>>, and admits the rest. The reason is described in Evidence A No. 12". Then, taking into consideration that constitution A2 is a acknowledgment as to an "electrolysis plate", and constitution D2 is a acknowledgment as to an "electrolysis tank" as has been described in the above-mentioned No. 3 1, it is understood as the Demandee alleging that, Regarding acknowledgment of an "electrolysis plate" and an "electrolysis tank" in particular within Article A, it should be the following ones described in "2. Constitution of improved product" of "Response additional explanatory document" of Evidence A No. 12.

(A) Acknowledgment of an "electrolysis plate" alleged by the Demandee

"e an electrolysis plate, including

a an ion exchange membrane with no passage hole for liquid and gas,

b each of a pair of electrode plates adhering to each of both surfaces of the ion

exchange membrane, respectively, and

d1 a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively"

(B) Acknowledgment of an "electrolysis tank" alleged by the Demandee

"m the electrolysis tank includes

m1 two division cases made by dividing a closed container in a vertical direction,

m2 a fastening part to integrally fasten the two division cases in a state sandwiching, by at least a vicinity of an inner side of peripheries of the two division cases, only a periphery of the ion exchange membrane so as to use the periphery of the ion exchange membrane located at the outer side in relation to peripheries of the pair of electrode plates as a soft gasket, and

m3 an O-ring sandwiched by the two division cases in a vicinity of a center of the peripheries of the two division cases,"

C Therefore, first, when the acknowledgment of Article A according to the body and the acknowledgment of the "electrolysis plate" according to the Demandee are compared, they differ from in that, although the body has understood as the above-mentioned (7) a, the acknowledgment according to the Demandee recognizes that an "electrolysis plate" has a "fixing part" just like constitution d1 and e described in the above-mentioned B (A). It is examined whether or not such acknowledgment according to the Demandee is adequate on the basis of a technical viewpoint.

In the acknowledgment of the "electrolysis plate" alleged by the Demandee, the "fixing part" is one "to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively" according to the above-mentioned constitution d1, and, therefore, it is obvious that it corresponds to "portions to sandwich an electrode plate between division cases (cells)" described in FIG. 3 and FIG. 4 of the drawings of Article A that has been examined in 2 (1) and (2) of the above-mentioned No. 3. Then, the above-mentioned "portions to sandwich an electrode plate between division cases" are, as has been examined in 2 (1) (1-2) (C) and (2) (2-2) (C) of the above-mentioned No. 3, formed in a way continuing from "one of the two division cases" or from "the other of the two division cases". In addition, the above-mentioned "portions to sandwich an electrode plate between division cases" are ones, as have been examined on the basis of FIG. 5 in 2 (4) (4-2) (4-2-4) (I) of the above-mentioned No. 3, to hold the "electrolysis plate" in a sandwiching manner so as to make the two "electrode plates" come to be in a state adhering to both surfaces of the "ion exchange

membrane", and, thus, the "portions to sandwich an electrode plate between division cases" and the "electrolysis plate" are formed simply capable of contacting with each other, and it cannot be said that they are formed as a unified structure product.

Therefore, the allegation that the Demandee recognizes the "electrolysis plate" with the "fixing part" described in the constitution d1 and constitution e is not consistent with the matters based on FIG. 3, FIG. 4 and FIG. 5, and explanations of these drawings of the drawings of Article A. Thus, it cannot be said that it is adequate to recognize that the "electrolysis plate" of Article A has the "fixing part".

D Comparing the acknowledgment of the "electrolysis tank" of Article A according to the body and that according to the Demandee, they differ in that the body's finding is based on the above-mentioned (7) d, f and g, while the Demandee's acknowledgment is based on the constitution m2 and m3 described in the above-mentioned B (B), which means that "the periphery of a division case" is separated into "a vicinity of an inner side" to "sandwich only a periphery of the ion exchange membrane" and "a vicinity of a center" "including an O-ring sandwiched by the two division cases." Therefore, it is examined whether or not such acknowledgment according to the Demandee is adequate on the basis of a technical viewpoint.

As can be understood on the basis of FIG. 3 and FIG. 4 of the drawings of Article A examined in 2 (1) and (2) of the above-mentioned No. 3, "the periphery of a division case" is formed as part of a "division case" in a manner being integral and continuous with it by a material identical to it, and, in addition, it is understood that an "O-ring" and "a periphery of the ion exchange membrane" are members to secure sealability of the "electrolysis tank" in cooperation, and, therefore, it is understood that "the periphery of a division case" is a unified area having a function to hold members to secure sealability of the "electrolysis tank" in a sandwiching manner.

Accordingly, "the periphery of a division case" should be understood as a unified area, and there is no technical ground found to recognize it, as the above-mentioned constitution m2 and m3, in a manner separately dividing it into an area of "a vicinity of an inner side" and an area of "a vicinity of a center", and, thus, it cannot be said that it is adequate to recognize, in Article A, "the periphery of a division case" as an area having an area of "a vicinity of an inner side" and an area of "a vicinity of a center".

No. 4 Judgment

1 Regarding sufficiency of the constituent components

It is examined whether or not the constituent components of the patent invention are found in Article A.

(1) Regarding the constituent component A

The structure that Article A includes "an electrolysis plate including an ion exchange membrane with no passage hole for liquid and gas, and each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively" of constitution a corresponds to the patent invention comprising "an electrolysis plate including" "an ion exchange membrane with no passage hole for liquid and gas, and each of a pair of electrode plates adhering to each of both surfaces of the ion exchange membrane, respectively," of constituent component A. However, the "electrolysis plate" of constitution a of Article A does not include "a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively".

Therefore, "an electrolysis plate including" "a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively" of the constituent component A of the patent invention is not found in Article A.

(2) Regarding the constituent component B, C and E

Since it is obvious that constitution b, c and e of Article A correspond to each of the constituent component B, C and E of the patent invention, each of the constituent components B, C and E of the patent invention is found in the constitution b, c and e of Article A, respectively.

(3) Regarding the constituent component D

While Article A comprises "the electrolysis tank" including "two division cases of shapes obtained by dividing a closed container in a lateral direction" as constitution d, the patent invention comprises "the electrolysis tank" including "two division cases made by dividing a closed container in a vertical direction" as constituent component D1. They differ literally in that the division directions are "a lateral direction" or "a vertical direction".

However, regarding Article A, the expression that a division direction of a container is lateral means that, as examined in 3 (4) of the above-mentioned No. 3, "the other of the two division cases" and "one of the two division cases" are formed when an "electrolysis tank", which is a "closed container" is divided in the horizontal direction (lateral direction) or cutting it vertically. Regarding the patent invention, the division direction of a container is "a vertical direction" is nothing but, as explained in lines 2-3

of page 5/5 of the written reply to the advisory opinion request, "two division cases being divided in a lateral direction by being cut in the vertical direction". Thus, the above difference is caused only a difference in expression and not substantial.

Accordingly, the constituent component D of the patent invention is found in the constitution d of Article A.

(4) Regarding the constituent component F

The structure that Article A includes, in the "electrolysis tank", "a fastening part to integrally fasten the two division cases in a state sandwiching" ", by peripheries of the two division cases, a periphery of the ion exchange membrane" of constitution f corresponds to the patent invention including, in the "electrolysis tank", "a fastening part to integrally fasten the two division cases in a state sandwiching" ", by peripheries of the two division cases, a periphery of the ion exchange membrane" of the constituent component F. However, with respect to constitution f of Article A, since "peripheries of the two division cases" are sandwiching an "O-ring" other than "a periphery of the ion exchange membrane", it is not one "sandwiching, by peripheries of the two division cases, only a periphery of the ion exchange membrane so as to use the periphery of the ion exchange membrane located at the outer side than the peripheries of the pair of electrode plates as a soft gasket".

Therefore, the constituent component F of the patent invention is not found in the constitution f of Article A regarding the structure of "sandwiching, by peripheries of the two division cases, only a periphery of the ion exchange membrane so as to use the periphery of the ion exchange membrane located at the outer side in relation to the peripheries of the pair of electrode plates as a soft gasket".

2 Regarding whether or not the doctrine of equivalents can be applied to the constituent component A

The Demandee alleges, in (2) of page 4/5 of the written reply to the advisory opinion request, that "It can be said that constitution A2 includes <<a pair of sandwiching parts, formed in each of the two division cases, to hold, inside the container, the pair of electrode plates in a sandwiching manner in a state of the pair of electrode plates adhering to both surfaces of the ion exchange membrane>> described in constitution D2 as a component of the electrolysis plate. ... On the occasion of interpreting <<comprising ->> in the scope of claims, ... it should be construed substantially on the basis of matters indicating the true nature of its technical idea (matters specifying the invention) and on the basis of its effects ... Therefore,

constitution A2 is consistent with the constituent component A1.", and it is understood that Demandant substantially alleges that the doctrine of equivalents can be applied to the following structures of (A) and (B).

(A) regarding the constituent component A of the patent invention, an "electrolysis plate" includes "a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively", and

(B) "a pair of sandwiching parts to hold, inside the container, the pair of electrode plates in a sandwiching manner in a state of the pair of electrode plates adhering to both surfaces of the ion exchange membrane" are "formed in each of the two division cases" of constitution g of Article A.

Regarding the patent invention, the above-mentioned constitution A1 is described as constitution A in the advisory opinion, and, in addition, regarding Article A, the above-mentioned constitution A2 is described as constitution a in this advisory opinion, and the above-mentioned constitution D2 is described as constitutions d, f and g in a further detailed and separated fashion in the advisory opinion.

Regarding the constituent component A, which is a difference between the patent invention and Article A, it is examined whether or not the doctrine of equivalents can be applied in accordance with the following five requirements held by Supreme Court Decision (the decision of Supreme Court, Third petty bench on Feb. 24, 1998, Supreme Court, 1994 (O) 1083).

"Even if there exists a different portion between constitutions according to the scope of claims and the accused product or the like, it is reasonable to understand that the accused product or the like falls within the technical scope of a patent invention as an equivalent of the constitutions described in the scope of claims when the following five requirements are satisfied regarding the portion.

(First requirement) The portion is not an essential part of the patent invention.

(Second requirement) Even if the portion is replaced by the corresponding one in the accused product and the like, the objective of the patent invention can be achieved, an identical function is carried out, and the identical effect can be made.

(Third requirement) The replacement could be easily arrived at by a person with usual knowledge in the technical field to which the present invention belongs (a person skilled in the art) at the time when the accused product or the like was manufactured or the like.

(Fourth requirement) The accused product or the like is not identical to the

technology known to the public at the time when the patent application of the patent invention was filed and is not what could be easily derived by a person skilled in the art on the basis of the technology at the time when the patent application of the patent invention was filed.

(Fifth requirement) There are no specific circumstances that the accused product or the like was deemed to be intentionally excluded from the scope of claims during the patent application procedure of the patent invention."

(1) First requirement

The component A of the patent invention differs from Article A in that an "electrolysis plate" includes "a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively". The technical significance of the difference is examined.

Relating to "a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively" provided in the "electrolysis plate" in the patent invention, there are the following statements in the description of the Patent. (Here, the underlines are applied by the body. In addition, " ..." indicates abbreviation of statements.).

"[Technical Problem]
[0004]
...
[0006]
In addition, in the conventional electrolysis system, there also has been a problem other than the above that a large number of various defects that are unsuitable when using it as a tabletop hydrogen gas generator exist, such as that hydrogen gas cannot be efficiently separated from an electrolysis plate, and that large bolts and nuts securing an electrode plate to an ion exchange membrane inevitably absorb hydrogen gas.
[0007]
Therefore, the present invention has been made in view of these points, and an object of the present invention is to provide a novel tabletop hydrogen gas generator that improves various defects such as problems related to miniaturization and portability in the related art."

"[0087]

(The fixing part 520)

The fixing part 520 makes the pair of electrode plates 500 adhere tightly to both surfaces of the ion exchange membrane 510, respectively. When the pair of electrode plates 500 and the ion exchange membrane 510 are not appressed to each other, an electrification resistance between the pair of electrode plates 500 and the ion exchange membrane 510 becomes large, and an electrolysis efficiency of the electrolysis plate 5 degrades. Therefore, the adhesion performance by the fixing part 520 is important.

[0088]

As an adhering method of the pair of electrode plates 500 and the ion exchange membrane 510, a conventional method to sandwich the ion exchange membrane 510 between the electrode plates 500 that are relatively thick and hard to bend, and bolt these at a total of five positions of four positions in the periphery of the electrode plates 500 and one position in the center is also thinkable. However, when a lot of large protruding objects such as bolts exist on the electrolysis plate 5, bubbles 15 of hydrogen gas and oxygen gas generated from the electrode plate 500 are adsorbed by the protruding objects to prevent the bubbles 15 from rising. In addition, the larger the volume of the protruding objects, the greater the reduction in the capacity of the pure water 13 stored in the electrolysis tank 6. As a result, a generation amount of hydrogen gas decreases.

[0089]

Meanwhile, regarding adsorption of the bubbles 15 to protruding objects, it is also possible to decrease the adsorption by connecting a circulating pump to the electrolysis tank 6. However, the tabletop hydrogen gas generator 1 of the present embodiment does not include a circulating pump, in consideration of miniaturization, portability improvement, and low cost.

[0090]

For that reason, it is preferred that the fixing part 520 of the present embodiment be small rivets as shown in FIG. 2 to FIG. 4.

[0091]

(Rivet)

Regarding rivets serving as the fixing part 520 of the present embodiment, in order to enhance an adhesion property, four rivets are arranged along the periphery of the electrode plate 500 in a rectangular shape, and four rivets are arranged in the middle part of the electrode plate 500 in a vertically-long rhombus shape, as shown in FIG. 4. Furthermore, it is preferred that rivets serving as the fixing part 520 expand when absorbing liquid to enhance the adhesion property.

[0092]

These rivets are made of thermoplastic, and, as shown in FIG. 3, each rivet includes a rivet shaft 521 and two rivet heads 522."

According to the above-mentioned statements concerning a fixing part, one of the problems to be solved by the patent invention is to provide a novel tabletop hydrogen gas generator that improves a defect that protruding objects such as large bolts or nuts to secure an electrode plate to an ion exchange membrane are apt to adsorb hydrogen. So, by providing small rivets as the fixing part in the electrode plate 500, the adhesion property between the pair of electrode plates 500 and the ion exchange membrane 510 and the electrolysis efficiency are improved. As a result, the above-mentioned problem caused by a large protruding object adsorbs hydrogen shall be solved.

Therefore, it can be said that to provide, in the patent invention, "a fixing part to make the pair of electrode plates adhere to the both surfaces of the ion exchange membrane, respectively" in an "electrolysis plate" is a characteristic part, which is a core idea of the patent invention, or an essential part to establish the technology to solve the problem to be solved.

(2) Second requirement

It is examined whether or not the objective of the patent invention would be achieved, the identical function would be carried out, and the identical effect would be made if the patent invention comprised "a pair of sandwiching parts" formed on each of "two division cases" without a "fixing part" on the "electrolysis plate" like Article A.

As examined in the above-mentioned (1), the patent invention, which comprises a "fixing part" on the "electrolysis plate", improves the adhesion property between a pair of electrode plates and an ion exchange membrane and the electrolysis efficiency, and solves the defects that protruding objects such as large bolts and nuts adsorb hydrogen and a volume of pure water stored in an electrolysis tank decreases.

In Article A, since "a pair of sandwiching parts" "formed in each of the two division cases" are provided "to hold, inside the container, the pair of electrode plates in a sandwiching manner with the pair of electrode plates adhering to both surfaces of the ion exchange membrane", it is understood that "a pair of sandwiching parts" improves the adhesion property between a pair of electrode plates and an ion exchange membrane

and the electrolysis efficiency, which is similar to the effect made by the patent invention. However, as shown in FIG. 3 and FIG. 4 of the drawings of Article A, "a pair of sandwiching parts" are formed in a manner protruding from the concave portion of a division case, and, therefore, they correspond to "a protruding object such as a large bolt and nut" described in the Patent description, and, accordingly, it can be said that Article A doesn't improve the defects that the protruding object adsorbs hydrogen and the volume of pure water to be stored decreases.

Accordingly, if the patent invention comprised "a pair of sandwiching parts" formed on each of "two division cases" without a "fixing part" in an "electrolysis plate" like Article A, it cannot be said that the objective of the patent invention would be achieved, the identical function would be carried out, or the identical effect would be made.

(3) Third requirement

In the patent invention, a "fixing part" is a component provided in an "electrolysis plate", and it is independent from the other components, and, as an independent action of the "fixing part", it has a function to make a pair of electrode plates adhere to both surfaces of ion exchange membrane, whereas, in Article A, "a pair of sandwiching parts" are ones formed in a way continuing from each of the "two division cases", and, thus, if the "two division cases" are not fastened together by the "fastening part", the pair of electrode plates cannot be made to adhere to both surfaces of the ion exchange membrane. In other words, although a "fixing part" of the patent invention and "a pair of sandwiching parts" of Article A are in common in the structure having a function to make a pair of electrode plates adhere to both surfaces of an ion exchange membrane, they are completely different in a location to be provided and in constitution.

Accordingly, it cannot be said that, in the patent invention, forming "a pair of sandwiching parts" in "two division cases" as is the case with Article A instead of providing a "fixing part" in an "electrolysis plate" would be just a design change for a person skilled in the art in the technical field of a tabletop hydrogen gas generator at the time point of February, 2015 when Article A described in the written request for the advisory opinion was developed, and, therefore, it cannot be said that it could have been easily arrived at by a person skilled in the art.

(4) Conclusion as to whether the requirement regarding the constituent component A is

satisfied

As mentioned above, since the first, second and third requirements among the five requirements held by Supreme Court Decision for allowing application of the doctrine of equivalents are not satisfied, without examining the fourth and fifth requirements, the doctrine of equivalents should not be applied to the constituent component A, which is the difference between the patent invention and Article A.

Accordingly, since the doctrine of equivalents cannot be applied to the constituent component A, which is the difference between the patent invention and Article A, it can be said that the constituent component A of the patent invention is not found in Article A.

3 Regarding whether or not the doctrine of equivalents is applicable as to the constituent component F

The Demandee alleges, in page 5/5 (ii) of the written reply to the advisory opinion request, that "The inner portion of an O-ring in the periphery of a division case of Article A uses only an ion exchange membrane as a soft gasket exactly, and, thus, it can be said that, similarly to constitution D1 of the invention, it is <<in a state sandwiching only a periphery of the ion exchange membrane>>." This allegation is understood as substantially alleging that the structure of the following (A) and (B) are equivalent.

(A) "a fastening part to integrally fasten the two division cases in a state sandwiching, by peripheries of the two division cases, only a periphery of the ion exchange membrane" within the constituent component F of the patent invention, and

(B) "a fastening part to integrally fasten the two division cases in a state sandwiching, by peripheries of the two division cases, a periphery of the ion exchange membrane and an O-ring" of constitution f of Article A.

It is examined whether or not the doctrine of equivalents is applicable to the constituent component F, which is a difference between the patent invention and Article A on the basis of the five requirements held by Supreme Court Decision, as with the examination in the above-mentioned 2.

(1) Fifth requirement

Regarding the written opinion dated May 12, 2014 during the patent examination procedure concerning the Patent, which is Evidence A-No. 13, the paragraph entitled "3-7. Combination of Cited Documents 1-5" says that "Cited Documents 2-5 do not disclose a structure that electrolysis chambers sandwich only a

periphery of an ion exchange membrane but they disclose a structure as a conventional technology that electrolysis chambers sandwich both of an ion exchange membrane and each periphery of the electrodes or the electrolysis chambers sandwich a periphery of the ion exchange membrane via a gasket.

Therefore, even if the arts disclosed in Cited Documents 1-5 are combined, a structure as is the case with the invention that electrolysis chambers, which can be divided, sandwich only a periphery of an ion exchange membrane cannot be elicited."

In other words, the Demandee alleged during the examination procedure of the patent invention that "a structure that electrolysis chambers sandwich a periphery of the ion exchange membrane via a gasket", which is disclosed in the Cited Documents and has been conventionally obvious, is different from "a structure that electrolysis chambers sandwich only a periphery of an ion exchange membrane" or the structure of the patent invention that peripheries of the two division cases sandwich only a periphery of the ion exchange membrane".

While Article A has a structure that peripheries of the two division cases sandwich a periphery of the ion exchange membrane and an O-ring concerning constitution f, the structure has to be nothing but "a structure that electrolysis chambers sandwich a periphery of the ion exchange membrane via a gasket", which is disclosed in the Cited Documents and conventionally obvious as stated in the above-mentioned written opinion.

Therefore, regarding "a state sandwiching, by peripheries of the two division cases, a periphery of the ion exchange membrane and an O-ring" within constitution f of Article A, it can be said that it falls under the category consciously excluded from the scope of claims for patent during the patent application procedure of the patent invention.

(2) Summary as to whether or not the constituent component F is found in Article A.

As mentioned above, since the fifth requirement among the five requirements for allowing to apply the doctrine of equivalents held by Supreme Court Decision is not satisfied, not to mention the first to fourth requirements, the doctrine of equivalents cannot be applied to the constituent component F that is one of differences between the patent invention and Article A.

Regarding the constituent component F that is one of differences between the patent invention and Article A, since the doctrine of equivalents cannot be applied, it can be said that the constituent component F of the patent invention is not found in Article A.

4 As for the above-mentioned No. 3 3, since there is no specific explanation in the written request for the advisory opinion, it is assumed in accordance with the Demandant’s allegations that an "ion exchange membrane" has no passage hole for liquid or gas" regarding constitution A2, "the hydrogen gas generation tank and the oxygen gas generation tank" store pure water regarding constitution B2, and “the hydrogen gas generation device” is tabletop regarding constitution E2. However, since the above-mentioned constitutions on the basis of the Demandant’s allegations have nothing to do with the arguments concerning whether or not the constituent component A and the constituent component F of the above-mentioned 2 and 3 are found in Article A, they have no influence upon the result of the above-mentioned arguments.

5 Summary

As the above-mentioned 1-4, the constituent components A and F of the patent invention are not found in Article A.

No. 6 Closing remarks

As mentioned above, since the constituent components A and F of the patent invention are not found in Article A, Article A does not fall within the technical scope of the patent invention.

Therefore, the advisory opinion shall be made as described in the conclusion.

March 1, 2016

Chief administrative judge:	KIMURA, Koichi
Administrative judge:	IKEFUCHI, Ryu
Administrative judge:	KAWANO, Kazuo