Trial decision

Invalidation No. 2011-800263

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The case of trial regarding the invalidation of Japanese Patent No. 4700817,

entitled "Vibration Control Framing" between the parties above has resulted in the following trial decision.

Conclusion

The correction shall be approved.

The patent regarding the invention according to Claim 1 of Japanese Patent No. 4700817 is invalidated.

The demand for trial regarding the invention according to Claim 2 of Japanese Patent No. 4700817 is groundless.

One half of the costs in connection with the trial shall be borne by the demandant, and the other half shall be borne by the demandee.

Reason

No. 1 History of the procedures

February 2, 2001:	Application (Japanese Patent Application No. 2001-26928)
March 11, 2011:	Registration of establishment (Japanese Patent No. 4700817)
December 22, 2011:	Demand for trial of the case
March 19, 2012:	Submission of a written reply and a written correction request from the demandee
May 8, 2012:	Submission of a written refutation from the demandant
July 20, 2012:	Notification of matters to be examined
August 10, 2012:	Submission of oral proceeding statement brief from the demandant
August 14, 2012:	Submission of oral proceeding statement brief from the demandee
August 28, 2012:	Submission of oral proceeding statement brief 2 from the demandant
August 28, 2012:	Oral proceeding

No. 2 The demandant's allegation

The demandant requested invalidation of the trial decision that the patent for the invention according to Claims 1 and 2 of Japanese Patent No. 4700817 and that the costs in connection with the trial shall be borne by the demandee, alleged the following first and second reasons for invalidation as the reasons for that, and submitted Evidence A No. 1 to Evidence A No. 12 as a means of proof. Furthermore, the demandant alleged that Corrections A and B submitted by the written correction

request dated March 19, 2012 do not meet the correction requirement and are not acceptable.

1. Gist of reasons for invalidation

(1) The first reason for invalidation (Article 29(1)(iii) of the Patent Act)

The invention described in Claim 1 of the scope of claims for patent of the case is the invention described in Evidence A No. 1, and thus the demandee should not be granted a patent for the invention under the provisions of Article 29(1)(iii) of the Patent Act.

(2) The second reason for invalidation (Article 29(2) of the Patent Act)

The inventions described in Claim 1 and Claim 2 of the scope of claims for patent of the case could have been easily invented by a person skilled in the art by reference to the invention described in Evidence A No. 1 before the application was filed, and thus the demandee should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act.

Therefore, the patents relating to the Inventions 1 and 2 fall under the provision of Article 123(1)(ii) of the Patent Act and should be invalidated.

2. Evidence

Means of proof submitted by the demandant is set forth below.

-Presented in the written demand for trial-

Evidence A No. 1: Proceedings of the Japan Concrete Institute Vol. 21, No. 3, 1999, Japan Concrete Institute, published on June 21, 1999, Pages 1147 to 1152, "Research on earthquake response characteristics of a reinforced concrete construction rigid eccentric building to which a hysteresis damper is added"

Evidence A No. 2: Japanese Unexamined Patent Application Publication No. H09-88182

Evidence A No. 3: Summaries of technical papers of annual meeting, Architectural Institute of Japan (Kanto), published in September, 1997, Pages 913 to 914, "Application of an elastoplastic damper to a high-rise building (part 1) control of twist vibration"

Evidence A No. 4: Summaries of technical papers of annual meeting,

Architectural Institute of Japan (Kyushu), published in September, 1998, Pages 437 to 438, "Concerning a reinforcing method by a vibration control brace of an eccentric framing construction (part 1) a brace reinforcing effect making eccentric rigidity zero"

Evidence A No. 5: The 9th Japan Earthquake Engineering Symposium Proceedings (1994), 2nd separate volume Tokyo, Science Council of Japan Earthquake Engineering Research Liaison Committee, Pages 1591-1596, "Dynamic elastoplastic behavior of an eccentric solid RC wall frame structure"

- Presented in the written refutation dated May 08, 2012-

Evidence A No. 6: Summaries of technical papers of annual meeting, Architectural Institute of Japan (Kanto), published in September, 1993, Pages 643 to 644, "Vibration control of a twisted building (an experimental study on an effect of a viscous damper to twist vibration)"

Evidence A No. 7: Summaries of technical papers of annual meeting, Architectural Institute of Japan (Kyushu), published in September, 1998, Pages 379 to 380, "An effective disposal method using a transfer function of a building structure addition viscosity damper"

Evidence A No. 8: Summaries of technical papers of annual meeting, Architectural Institute of Japan (Kyushu), published in September, 1998, Pages 893 to 894, "Utilization of a viscoelastic body damper for a wooden conventional construction house (part 4: a vibration experiment of a real wooden house to which a damper is added)"

-Presented in Oral proceedings statement brief 2 dated August 28, 2012-

Evidence A No. 9: Nippon Steel Technical Report No. 356 (1995), Pages 38 to 46, "the development of vibration resistance, seismic, vibration control technologies"

Evidence A No. 10: Summaries of technical papers of annual meeting, Architectural Institute of Japan (Chugoku), published in

	September, 1999, Pages 1081 to 1082, "Research on multi-story vibration resistant wall framings coupled by steel beam dampers (part 1 earthquake response characteristics)"
Evidence A No. 11:	Architectural Institute of Japan Journal of structural engineering Vol. 49B (March, 2003), "an experimental study on a boundary beam damper using low yield point steel"
Evidence A No. 12:	Proceedings of the Japan Concrete Institute Vol. 24, No. 2, 2002, Pages 1057 to 1062, "Research on vibration resisting performance of an RC framework with a vibration control device"

No. 3 The demandee's allegation

The demandee requested that the trial decision affirming the correction of the specification of Japanese Patent No. 4700817 as the corrected specification attached to the written correction request dated March 19, 2012; that the demand for the invalidation trial of the case be found groundless; and that the costs in connection with the trial be borne by the demandant, and alleged as follows.

1. Regarding legality of the correction request

The correction request aims at "restriction of the scope of claims"; both of the inventions corrected by the correction request are within a range described in the specification and drawings attached to the application.

2. The first reason for invalidation and the second reason for invalidation alleged by the demandant are groundless.

No. 4 Judgment by the body regarding the correction by the correction request dated March 19, 2012

1. Contents of correction

The correction by the correction request dated March 19, 2012 (hereinafter, referred to as the "Correction") requests to correct the specification of Japanese Patent No. 4700817 of the case as the substitute specification attached to the written correction request, and contents of the correction are as follows.

(1) Correction A: "the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively" in Claim 1 of the scope of claims for patent is corrected to "the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively to exert a vibration control effect during both small earthquakes and large earthquakes."

(2) Correction B: "the vibration control framing according to Claim 1, wherein a rigidity ratio of the opposite rigid and flexible structural planes is designed to be 2:1 in a case where the mass of said structure is homogeneous and a rigid element exists only on a structural plane on an outer periphery of the structure" in Claim 2 of the scope of claims for patent is corrected to "a vibration control framing which is attached with absorbers and reduces a vibration response of a structure, wherein a framing of the structure is designed to decenter a center of rigidity and a center of gravity by breaking a balance of rigidity of the structural planes or mass of the structure so as to generate twist vibration to excitation in a horizontal direction; and the structural plane on a side closer to the center of rigidity than the center of gravity is made to be the rigid structural plane and the structural plane disposed opposite to the rigid structural plane on a side farther from the center of rigidity than is the rigid structural plane is made to be the flexible structural plane, a rigidity ratio of the opposite rigid and flexible structural planes being designed to be 2:1 in a case where the mass of said structure is homogeneous and the rigid element exists only on the structural plane on the outer periphery of the structure, the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively."

(3) Correction C: Paragraph [0010] of the specification is corrected to

"as means for solving a problem mentioned above, the vibration control framing relating to the invention described in Claim 1 is the vibration control framing which is attached with the absorber and reduces a vibration response of the structure, wherein a framing of the structure is designed to decenter a center of rigidity and a center of gravity by breaking a balance of rigidity of the structural planes or mass of the structure so as to generate twist vibration to excitation in a horizontal direction; and the structural plane on a side closer to the center of rigidity than to the center of gravity is made to be the rigid structural plane and the structural plane disposed opposite to the rigid structural plane on a side farther from the center of rigidity than is the rigid structural plane is made to be the flexible structural plane, the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively to exert a vibration control effect during both small earthquakes and large earthquakes."

(4) Correction D: Paragraph [0011] of the specification is corrected to

"the vibration control framing according to Claim 2 is the vibration control framing which is attached with the absorber and reduces a vibration response of the structure, wherein a framing of the structure is designed to decenter a center of rigidity and a center of gravity by breaking a balance of rigidity of the structural planes or mass of the structure so as to generate twist vibration to excitation in a horizontal direction; and the structural plane on a side closer to the center of rigidity than the center of gravity is made to be the rigid structural plane; the structural plane disposed opposite to the rigid structural plane on a side farther from the center of rigidity than is the rigid structural plane is made to be the flexible structural plane, a rigidity ratio of the opposite rigid and flexible structural planes being designed to be 2:1 in a case where the mass of said structure is homogeneous and a rigid element exists only on a structural plane on an outer periphery of the structure, the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively."

2. Overview of the party's allegation regarding the matters of correction

(1) The demandee's allegation

(A) As it is obvious from the descriptions of Paragraphs [0008], [0009], [0022] and the whole of the specification, the invention according to Claim 1 before the correction included the following two inventions (technical ideas).

The first invention, as described in Paragraph [0009] and Fig. 1 and the like of the specification, is a vibration control framing exerting a vibration control effect during both small earthquakes and large earthquakes. On the other hand, the second invention, as described after Paragraph [0022] of the specification, is a vibration control framing which vibrates without twisting and does not exert the vibration control effect during small earthquakes in which the absorber (a steel damper and the like) does not yield, and on the other hand, twists to exert the vibration control effect during large earthquakes in which the absorber yields.

Then, Correction A adds the limitation matter "to exert a vibration control effect during both small earthquakes and large earthquakes," thereby eliminating the second invention from the invention described in Claim 1 before the correction, so that it does not add any new matter.

(B) Correction 2, with the correction of Claim according to Correction A, merges the invention described in Claim 1 before the correction and the invention described in Claim 2 before the correction, and formally rewrites the invention described in Claim 2 before the correction from a dependent claim to an independent claim. Namely,

Correction B accompanies Correction A which aims at the restriction of the scope of claims for patent. Also, the invention described in Claim 2 after the correction is substantially identical to the invention described in Claim 2 before the correction, so that it does not substantially enlarge or alter the scope of claims, or add any new matter.
(C) Correction C corrects Paragraph [0009] of the specification according to Claim 1 after the correction by Correction A, and the aim is the same as that of Correction A. Correction C does not substantially enlarge or alter the scope of claims, or add any new matter.
(D) Correction D corrects Paragraph [0010] of the specification according to Claim 2 after the correction by Correction B, and accompanies Correction A as well as Correction B. Also, Correction D does not substantially enlarge or alter the scope of claims, or add any new matter.

(2) The demandant's allegation
(A) Correction A requests the correction from "the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively" of the third paragraph of Claim 1 to "the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively to exert a vibration control effect during both small earthquakes and large earthquakes," and substantially adds the requirement "to exert a vibration control effect during small earthquakes."

Although the written correction request explains that grounds for the correction request are in Paragraphs 0008, 0009, and 0022 of the specification at the time of patent application (Japanese Patent No. 4700817), "the vibration control framing of the patent invention (including Claim 1 and Claim 2) exerts a vibration control effect during small earthquakes" is not described or inferably explained in the specification at the time of patent application, so that Correction A becomes an enlarged correction exceeding the description contents of the specification at the time of patent application.

Therefore, Correction A was not made within the scope of matters described in the claims and the specifications or drawings attached to the application, so that is does not fall under Article 134-2(1)(i) of the Patent Act, and violates the purpose of the correction of Article 134-2(1) of the Patent Act.
(B) Correction B repeats the full text of Claim 1 cited by Claim 2 at the time of patent application, in the corrected Claim 2 while combining the contents described only in Claim 2 at the time of patent application, so that it is thought that Correction B itself falls within the scope described in the specification at the time of patent application. However, even if Correction B falls within the scope described in the

specification at the time of patent application, if it is a repetition of the full text of Claim 1 at the time of patent application, it does not further restrict the requirement of Claim 2 at the time of patent application, so that it does not fall under any of the purposes of the correction (the restriction of the scope of claims, the correction of errors or incorrect translations, and the clarification of an ambiguous description) (any of the items of Article 134-2(1)) prescribed in Article 134-2(1) of the Patent Act, and does not meet the correction requirement.

3. Judgment by the body

In Paragraph [0009] of the specification, as the purpose of the invention, it is described "to provide a vibration control framing devised to concentrate deformation on a specific framing plane on which the absorber is installed, and maximally exert a working effect of the absorber by generating twist vibrations with the structure when the structure is excited in the horizontal direction." Then, it is fundamentally thought that the absorber should function upon an earthquake regardless of the magnitude of the earthquake, and in Paragraph [0022], it is described that "concerning the structure forms and kinds of dampers 3 and 7, an oil damper, a viscoelastic damper, a steel damper, a friction damper, and the like can be suitably used," so that in a case of using the oil damper and the viscoelastic damper as the kinds of the dampers, it can be said that they twist to exert a vibration control effect during small earthquakes, and twist to exert the vibration control effect also during large earthquakes.

Also, the description of Paragraph [0022] "it can be implemented as a vibration control framing which vibrates without twisting during small earthquakes, and twists to exert the vibration control effect" is predicated on the using of the steel damper or the friction damper, and it cannot be said that "exerting the vibration control effect during small earthquakes" is eliminated with this description.

Therefore, it is acknowledged that the point "the absorbers being installed in said flexible structural plane, rather than said rigid structural plane intensively to exert a vibration control effect during both small earthquakes and large earthquakes" of Correction A, about the point "the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively" of Claim 1 before the correction, eliminates the point "especially, the steel damper or the friction damper changes its characteristics before and after yielding (sliding), so that, for example, if a stiffness ratio of the rigid structural plane and the flexible structural plate is designed to be equal to 1:1 before yielding and to set stiffness to 2:1 after yielding, it vibrates without twisting during small earthquakes" of Paragraph [0022]; namely, the point "it

vibrates without twisting and does not exert the vibration control effect during small earthquakes," so that it is a correction aiming at restriction of the scope of claims.

Then, concerning the point "the absorber being installed in said flexible structural plane, rather than in said rigid structural plane intensively to exert a vibration control effect during both small earthquakes and large earthquakes" of Correction A, in the description "concerning the structure forms and kinds of dampers 3 and 7, an oil damper, a viscoelastic damper, a steel damper, a friction damper, and the like can be suitably used," in a case of using "the oil damper and the viscoelastic damper," from characteristics of those dampers, it is not supposed that "especially, the steel damper or the friction damper changes its characteristics before and after yielding (sliding), so that, for example, if a stiffness ratio of the rigid structural plane and the flexible structural plate is designed to be equal to 1:1 before yielding and to set stiffness to 2:1 after yielding, it vibrates without twisting during small earthquakes" of Paragraph [0022], but "they twist to exert a vibration control effect during small earthquakes, and twist to exert the vibration control effect also during large earthquakes," so that the correction falls within the scope of matters described in the specification or drawings attached to the application.

Next, concerning Correction B, Correction B merges Claim 1 of the specification and dependent Claim 2 to make a correction as a new independent Claim 2, and does not change substantial contents. On the other hand, as described above, Claim 1 is restricted by Correction A, so that considering the entire column of the scope of claims for patent, it is restricted, so that Correction B is aimed at restriction of the scope of claims, is a correction within the scope of matters described in the specification or drawings attached to the application, and does not substantially enlarge or alter the scope of claims.

Also, Corrections C and D are corrections for matching the descriptions of Paragraphs [0009] and [0010] of the specification before the corrections to the scope of claims for patent, so that they are intended to clarify an ambiguous statement and do not substantially enlarge or alter the scope of claims.

Therefore, Corrections A to D described above fall under the purpose of the correction of Article 134-2(1) of the Patent Act before revision by the Patent Act of 2011, and fall under the provisions of Article 126(3) and (4) of the Patent Act which is applied mutatis mutandis pursuant to the provisions of Article 134-2(5) of the Patent Act. Hence, the corrections shall be approved.

No. 5 The patent invention

Since the correction is approved as described above, the inventions relating to Claims 1 and 2 of the patent are acknowledged as follows as specified by matters described in Claims 1 and 2 of the scope of claims for patent of the corrected specification.

[Claim 1]

A vibration control framing which is attached with absorbers and reduces a vibration response of a structure, wherein

a framing of the structure is designed to decenter a center of rigidity and a center of gravity by breaking a balance of rigidity of the structural planes or mass of the structure so as to generate twist vibration to excitation in a horizontal direction; and

the structural plane on a side closer to the center of rigidity than is the center of gravity is made to be the rigid structural plane and the structural plane disposed opposite to the rigid structural plane on a side farther from the center of rigidity than is the rigid structural plane is made to be the flexible structural plane, the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively to exert a vibration control effect during both small earthquakes and large earthquakes.

[Claim 2]

A vibration control framing which is attached with absorbers and reduces a vibration response of a structure, wherein

a framing of the structure is designed to decenter a center of rigidity and a center of gravity by breaking a balance of rigidity of the structural planes or mass of the structure so as to generate twist vibration to excitation in a horizontal direction; and

the structural plane on a side closer to the center of rigidity than is the center of gravity is made to be the rigid structural plane and the structural plane disposed opposite to the rigid structural plane on a side farther from the center of rigidity than is the rigid structural plane is made to be the flexible structural plane, a rigidity ratio of the opposite rigid and flexible structural planes being designed to be 2:1 in a case where the mass of said structure is homogeneous and the rigid element exists only on the structural plane on the outer periphery of the structure, the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively."

(Hereinafter, the inventions relating to Claims 1 and 2 are respectively referred to as the "Invention 1" and the "Invention 2.")

No. 6 Judgment of the grounds for invalidation

1. Description of each Evidence A

(1) In Evidence A No. 1 (Proceedings of the Japan Concrete Institute Volume 21, Number 3, 1999, edited by Japan Concrete Institute, issued on June 21, 1999, Pages 1147 to 1152, "Research on earthquake response characteristics of a reinforced concrete construction rigid eccentric building to which a hysteresis damper is added") distributed before the application of the patent was filed, the following is described.

(1a) "Subject matters: ... this thesis considers that a low yield point steel damper is added to a building so as to reduce twist response components, thereby giving the building vibration resistance equivalent to a non-eccentric building." (Lines 1 to 4 on Page 1147)

(1b) "To a building deteriorated in vibration resistance due to an influence of twisting, so as to propose vibration control reinforcement which does not reinforce a structure member but uses the hysteresis damper to reduce a twist response and give the building the vibration resistance equivalent to that of the non-eccentric building, a twist response reducing effect by the hysteresis damper is examined." (Lines 7 to 13 in the left column of Page 1147)

(1c) "As shown in Fig. 1, a non-eccentric model and an eccentric model are produced by replacing a structural plane (Y2) including a multi-story vibration resistant wall and a structural plane (Y1) of a pure frame." (Lines 7 to 10 in the right column of Page 1147)

(1d) "A planar layout position is made to be a structural plane Y5 on a shaken side so as to permit the twist response to exert an effect, and HD1 and HD2 with the same characteristics are installed thereon (Fig. 1). At the same positions in a vertical direction, the hysteresis dampers with the same characteristics are installed at all stages." (Line 21 in the right column of Page 1147 to Line 3 in the left column of Page 1148) Here, according to the description matters, it is acknowledged that "HD" is an abbreviation for hysteresis damper (Hysteresis Damper).

(1e) Referring to the description of (1c) above and Fig. 1, in the non-eccentric model on the left side of Fig. 1, a configuration in which the multi-story vibration resist wall is disposed on the structural plane Y2 and the structural plane Y4 is shown, and in the

eccentric model on the right side, there is shown a configuration in which the multi-story vibration resistant wall is disposed on the structural plane Y2 replaced to a position of the structural plane Y4 of the non-eccentric model and the structural plane Y4 at the same position as the non-eccentric model. The structural plane Y1, the structural plane Y3, and the structural plane Y5 of the eccentric model on the right side are configured by column/beam frames without vibration resistant walls. A plane shape on the right side in Fig. 1 is the "eccentric" model, so that it is acknowledged that a center of gravity and a center of rigidity are eccentric.

Here, the structural plane including the multi-story vibration resistant wall has larger bending rigidity in the structural plane inward direction than in the structural plane which does not include the multi-story vibration resistant wall, so that it can be said that the structural plane Y2 and the structural plane Y4 in the eccentric model on the right side become structural planes which are rigid as compared with the structural plane Y1, Y3, and Y5, and the structural plane Y1, Y3, and Y5 become structural planes that are relatively flexible.

Also, it has been revealed that the structural plane Y5 without the vibration resistant wall which is one structural plane of the two structural planes positioned on an outer peripheral side of the framing in a longitudinal direction in the eccentric model on the right side, is the flexible structural plane assuming twist vibrations, from the description of (1d) above "Y5 which is a structural plane on a shaken side." Then, the rigid structural plane Y2 becomes the structural plane on a side closer to the center of rigidity rather than the center of gravity since it is eccentric, and the flexible structural plane (Y5) becomes the structural plane on a side far from the center of rigidity than the rigid structural plane (Y2).

Furthermore, in the eccentric model on the right side, it is illustrated that the rigid structural plane Y2 exists on the structural plane on an outer periphery of the building, and the rigid structural plane Y4 exists in the inside of the building, and the hysteresis damper exists only on the structural plane Y5 on the outer periphery of the building; namely, the hysteresis damper is installed intensively. It can be said that the rigid structural planes and the hysteresis damper are rigid elements.

(1f) In the eccentric model on the right side in Fig. 1, by using a center line of the structure Y2 as the reference line, a distance from the structural plane Y2 to a rigidity center Se which is unclear is made to be L1, distances between all structural planes (between Y2 and Y1, between Y1 and Y3, between Y3 and Y4, and between Y4 and Y5) adjacent in an X-direction (a long side direction) are assumed to be equal, and the

distance is made to be LO. At points at which respective structural planes in the X-direction (the long side direction) and a Y-direction (a short side direction) intersect, columns are disposed evenly in horizontal two directions, so that the existence of the columns has not influence on the position of the rigidity center Se. Therefore, it is equivalent to the fact that only the vibration resistant wall is disposed on the structural plane Y2 and the structural plane Y4 in the plane of the eccentric model for obtaining the position of the rigidity center Se.

Then, if assuming the width (a distance in the Y-direction) of the vibration resistant wall disposed on the structural plane Y2 and the structural plane Y4 between X2 and X3 as W and thickness as d, a distance L1 from the center line of the structural plane Y2 to the rigidity center Se becomes L1=(W×d×3LO)/(2×W×d)=1.5LO. " W×d " in the numerator is an area of one vibration resistant wall, and an area of the vibration resistant wall of the structural plane Y4. Although an area of the vibration resistant wall of the structural plane Y2 is also "W×d," since a distance from the reference line (the center line of the structural plane Y2) to a center of the vibration resistant wall of the structural plane Y2 is 0, it is not added to the numerator. "3LO" is a distance from the reference line (the center line of the structural plane Y2) to the center line of the vibration resistant wall of the structural plane Y4, and "2×W×d" which is the denominator is the sum of the areas (W×d) of the vibration resistant walls of the structural plane Y2 and the structural plane Y4.

Since the distance L1 from the center line of the structural plane Y2 to the rigidity center Se is the sum/total cross section of a cross-sectional primary moment in the X-direction with regard to the reference line, as described above, L1=1.5LO is obtained. L1 (the distance from the center line of the structural plane Y2 to the rigidity center Se)=1.5LO, so that a distance L2 from the rigidity center Se to a center line of the structural plane Y5 becomes 2.5LO.

Here, although it becomes L1/L2=1.5/2.5=0.6, considering the rigidity of hysteresis dampers (HD) disposed in all stages between the two wall surfaces (between X1 and X2, and between X3 and X4) of the structural plane 5, the rigidity center Se comes close to the structural plane Y5, so that L2 (=2.5); namely, a denominator of 1.5/2.5 becomes slightly small. Then, if L1/L2 is corrected to, for example, 1.5/2.2, it becomes about 0.68, so that it becomes a degree from about 1.6/2.4 (=0.67) to 1.7/2.3 (=0.74).

According to the above, L1/L2 becomes a degree from about 1.6/2.4 to 1.7/2.3, and L2/L1 which is the inverse thereof becomes about 1.35 to 1.5:1, so that it is acknowledged to be equivalent to the allegation of the written refutation by the

demandant.

According to those descriptions, it is acknowledged that Evidence A No. 1 describes the following invention.

"A building which is subjected to vibration control reinforcement adding hysteresis dampers and giving vibration resistance for reducing twist response components of the building, wherein

the building is deteriorated in vibration resistance due to an influence of twisting and a center of rigidity and a center of gravity are decentered;

rigid elements exist on a structural plane on an outer periphery and inside of the building;

a structural plane (Y2) on a side closer to the center of rigidity rather than the center of gravity and a structural plane (Y5) disposed opposite to the structural plane (Y2) on a side farther from the center of rigidity than is the structural plane (Y2) are provided, the hysteresis dampers being installed on the structural plane (Y5) intensively; and

the inverse of a ratio of distances from the center of rigidity to the opposite structural plane (Y2) and the structural plane (Y5) is 1.35 to 1.5:1." (Hereinafter, referred to as "Invention A-1.")

(2) In Evidence A No. 6 (Summaries of technical papers of annual meeting, Architectural Institute of Japan (Kanto), published in September, 1993, Pages 643 to 644, "Vibration control of a twisted building (an experimental study on an effect of a viscous damper to twist vibration)") distributed before the application of the patent was filed, the following descriptions are acknowledged.

(2a) "1. Foreword

It was examined by an experiment whether or not twist vibration can be suppressed by adding an attenuation mechanism using an asphalt type viscous body, by dividing into a case of a building model twisted by horizontal force and a case of a building model not twisted by the horizontal force." (Lines 1 to 6 in the left column of Page 643)

(2b) "○2 a building twisted by horizontal force

The building twisted by the horizontal force requires attenuating force by the attenuation mechanism to be added on a structural plane far from a rotation center."

(Lines 16 to 19 in the right column of Page 644. Also, ○2 indicates a number 2 in a circle. The same applies hereafter.)

(3) In Evidence A No. 7 (Summaries of technical papers of annual meeting, Architectural Institute of Japan (Kyushu), published in September, 1998, Pages 379 to 380, "An effective disposing method using a transfer function of a building structure addition viscosity damper") distributed before the application of the patent was filed, the following description is acknowledged.
"1. Foreword Various studied on an optimal layout of dampers have been conducted so far (for example, [1, 2].) In this thesis, a theory to a problem of effectively disposing viscous dampers in a structure to which rigidity is given, and a numerical method based on the same is newly proposed." (Lines 1 to 5 in the left column of Page 379)

(4) In Evidence A No. 8: Summaries of technical papers of annual meeting, Architectural Institute of Japan (Kyushu), published in September, 1998, Pages 893 to 894, "Utilization of a viscoelastic body damper for a wooden conventional construction house (part 4: a vibration experiment of a real wooden house to which a damper is added)" distributed before the application of the patent was filed, the following description is acknowledged.
"We devised a damper mechanism by a viscoelastic body for an ordinary wooden conventional construction method in a previous report, and reported the performance thereof. In this report, the damper was attached to a real two-story wooden house, and a free vibration experiment and a forced vibration experiment by an exciter were performed, thereby experimentally examining an effect of the damper." (Lines 3 to 8 in the left column of Page 893)

(5) In Evidence A No. 9: Nippon Steel Technical Report No. 356 (1995), Pages 38 to 46, "the development of vibration resistance, seismic, vibration control technologies" distributed before the application of the patent was filed, the following description is acknowledged.
"The one developed as a vibration control mechanism capable of exerting a vibration control effect over a wide range from medium and small earthquakes to large earthquakes, is a vibration control panel which has a steel plate panel using extremely low yield point steel as a vibration control source," (Lines 18 to 21 in the left column of Page 40)

(6) In Evidence A No. 10: Summaries of technical papers of annual meeting, Architectural Institute of Japan (Chugoku), published in September, 1999, Pages 1081 to 1082, "Research on multi-story vibration resistant wall framings coupled by steel beam dampers (part 1 earthquake response characteristics)" distributed before the application of the patent was filed, the following description is acknowledged.

"The steel beam damper permits yielding even to an earthquake of a level 1 class so as to sufficiently exert its energy-absorbing performance. Thus, the steel beam damper yielding from an early stage has a strong characteristic as an attenuation mechanism (an energy absorbing mechanism) rather than a structure that contributes to rigidity and resilience of buildings." (Lines 18 to 23 in the left column of Page 1081)

2. Comparison of Invention 1 and Invention A-1 and Judgment

2-1 Comparison

The Invention 1 and Invention A-1 are compared.

"Hysteresis dampers" of Invention A-1 correspond to "absorbers" of Invention 1, and "a building which is subjected to vibration control reinforcement" corresponds to "a vibration control framing."

Then, the building of Invention A-1 "is deteriorated in the vibration resistance due to an influence of twisting," so that it can be said that the building comes to "generate twist vibration" to excitation in a horizontal direction same as Invention 1.

In Invention A-1, a position of a rigid structual plane is replaced to be an eccentric model and "a center of rigidity and a center of gravity are decentered," so that it corresponds to "decenter a center of rigidity and a center of gravity by breaking a balance of rigidity of the structural planes or mass of the structure" of Invention 1.

According to the description matters of (1e), it can be said that "a structural plane (Y2)" of Invention A-1 corresponds to "a rigid structural plane" of Invention 1, and "a structural plane (Y5)" corresponds to "a flexible structural plane."

"The hysteresis dampers being installed on the structural plane (Y5) intensively" of Invention A-1 means that the hysteresis damper is not installed on the structural plane (Y2) corresponding to the rigid structural plane, so that it corresponds to "the absorbers being installed in said flexible structural plane, rather than said rigid structural plane intensively" of Invention 1.

Therefore, the two coincide in the following point.

"A vibration control framing which is attached with absorbers and reduces a vibration

response of a structure, wherein

a framing of the structure generates twist vibration in response to excitation in a horizontal direction and breaks down rigidity on the structural planes to decenter a center of rigidity and a center of gravity; and

the structural plane on a side closer to the center of rigidity than to the center of gravity is made to be a rigid structural plane and the structural plane disposed opposite to the rigid structural plane on a side farther from the center of rigidity than is the rigid structural plane is made to be a flexible structural plane, the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively."

Then, the two differ in the following points.

(The different feature 1)

The framing of the structure is "designed to decenter a center of rigidity and a center of gravity" in Invention 1, whereas in Invention A-1, "a center of rigidity and a center of gravity are decentered."

(The different feature 2)

In Invention 1, it is "to exert a vibration control effect both during small earthquakes and large earthquakes," whereas in Invention A-1, there is no description of whether or not it exerts such a vibration control effect.

2-2 Judgment

(1) Regarding the different feature 1

Invention 1 is described as "designed to decenter a center of rigidity and a center of gravity," whereas Invention A-1 is described as "a center of rigidity and a center of gravity are decentered." Although the two differ in representation, they do not differ in the configuration in which "a center of rigidity and a center of gravity are decentered" in the vibration control framing, so that this point is not acknowledged as a substantial different feature.

(2) Regarding the different feature 2

The demandee alleged that the description "to exert a vibration control effect during both small earthquakes and large earthquakes" of Claim 1 intends to exclude the utilization of a steel damper or a friction damper in the oral proceeding.

From this, "the utilization of a speed depending type damper (an oil damper, a viscoelastic damper, and the like)" which is not the utilization of the steel damper or the friction damper will be examined.

For example, Evidence A No. 6 to Evidence A No. 8 describe the well-known

art which uses a speed depending type damper (an oil damper, a viscous damper, and the like) other than a hysteresis damper (an elastoplastic damper and the like); namely, other than a displacement depending type damper changing hysteresis characteristics as using a yield point as a boundary, for a building. Similarly, also in Japanese Unexamined Patent Application Publication No. 2000-179180 (matters pointed out by the examiner, such as "also, the one using a viscous body, an oil damper may be used for an external vibration resistant structure" in Paragraph [0042]) presented in the notification of reasons for refusal dated August 19, 2010 during the examination of the case, it is described that the oil damper, the viscous damper and the like are used as the external vibration resistant structure so as to absorb earthquake movement energy.

Then, it could be easily conceived by a person skilled in the art that, for example, as technical matters, adding the viscous body damper to a twisting building is described in Evidence A No. 6, instead of the hysteresis damper of Invention A-1, the speed depending type damper (the oil damper, the viscous damper, and the like) conventionally well-known as described in Evidence A No. 6 to Evidence A No. 8, and Japanese Unexamined Patent Application Publication No. 2000-179180 is adopted to make the configuration of the different feature 2 of Invention 1.

On the other hand, as described above, although the demandee alleged that the description "to exert a vibration control effect during both small earthquakes and large earthquakes" of Claim 1 intends to exclude the utilization of the steel damper or the friction damper, in Claim 1, there is no description limiting the structure forms and kinds of absorbers, so that the utilization of the steel damper or the friction damper is not eliminated literally. Therefore, we will also examine whether or not it could be easily conceived "to exert a vibration control effect during both small earthquakes and large earthquakes" assuming the utilization of the steel damper or the friction damper. For example, Evidence A No. 9 and Evidence A No. 10 describe use, as a vibration control source, of a steel plate panel using extremely low yield point steel capable of exerting a vibration control effect over a wide range from medium and small earthquakes to large earthquakes, or the steel beam damper which permits yielding even to an earthquake of a level 1 class so as to sufficiently exert its energy absorbing performance.

Although the hysteresis damper of Invention A-1 uses a low yield point steel damper as in the described matters (1a), it could be also easily conceived by a person skilled in the art that, for example, the hysteresis damper using the extremely low yield point steel "to exert a vibration control effect during both small earthquakes and large

earthquakes" as in the conventionally well-known Evidence A No. 9 and Evidence A No. 10 is selected to make a configuration of the different feature 2 of Invention 1.

Therefore, Invention 1 could be easily made by a person skilled in the art based on Invention A-1 and the conventionally well-known arts, so that the demandee should not be granted a patent for Invention 1 under the provisions of Article 29(2) of the Patent Act.

3 Comparison of Invention 2 and Invention A-1 and Judgment

3-1 Comparison

The Invention 2 and Invention A-1 are compared.

"Hysteresis dampers" of Invention A-1 correspond to "absorbers" of Invention 2, and "a building which is subjected to vibration control reinforcement" corresponds to "a vibration control framing."

Then, the building of Invention A-1 "is deteriorated in vibration resistance due to an influence of twisting," so that it can be said that the building comes to "generate twist vibration" to excitation in a horizontal direction in the same way as Invention 2.

In Invention A-1, a position of a rigid structual plane is replaced to be an eccentric model and "a center of rigidity and a center of gravity are decentered," so that it corresponds to "decenter a center of rigidity and a center of gravity by breaking a balance of rigidity of the structural planes or mass of the structure" of Invention 2.
According to the description matters of (1e), it can be said that "a structural plane (Y2)" of Invention A-1 corresponds to "a rigid structural plane" of Invention 1, and "a structural plane (Y5)" corresponds to "a flexible structural plane."

"The hysteresis dampers being installed on the structural plane (Y5) intensively" of Invention A-1 means that the hysteresis damper is not installed on the structural plane (Y2) corresponding to the rigid structural plane, so that it corresponds to "the absorbers being installed in said flexible structural plane, rather than said rigid structural plane intensively" of Invention 2.

Concerning "a ratio of distances from the center of rigidity to the opposite structural plane (Y2) and the structural plane (Y5)" of Invention A-1 (namely, L1/L2), the inverse (L2/L1) thereof corresponds to "a rigidity ratio of the opposite rigid and flexible structural planes" of Invention 2, so that "the inverse of a ratio of distances from the center of rigidity to the opposite structural plane (Y2) and the structural plane (Y5) is 1.35 to 1.5:1" of Invention A-1 are common with "a rigidity ratio of the opposite rigid and flexible structural planes is 2:1" of Invention 2, in the point that "a

rigidity ratio of the opposite rigid and flexible structural planes is a predetermined value."

Therefore, the two coincide in the following point.

"A vibration control framing which is attached with absorbers and reduces a vibration response of a structure, wherein

a framing of the structure generates twist vibration in response to excitation in a horizontal direction and breaks down rigidity on structural planes to decenter a center of rigidity and a center of gravity; and

the structural plane on a side closer to the center of rigidity than to the center of gravity is made to be a rigid structural plane and the structural plane disposed opposite to the rigid structural plane on a side farther from the center of rigidity than is the rigid structural plane is made to be a flexible structural plane, a rigidity ratio of the opposite rigid and flexible structural planes being a predetermined value, the absorbers being installed in said flexible structural plane, rather than in said rigid structural plane intensively."

Then, the two differ in the following points.

(The different feature A)

The framing of the structure is "designed to decenter a center of rigidity and a center of gravity" in Invention 2, whereas in Invention A-1, "a center of rigidity and a center of gravity are decentered."

(The different feature B)

In Invention 2, the structure is limited to "a case that the mass of said structure is homogeneous and the rigid element exists only on the structural plane on the outer periphery of the structure," whereas in Invention A-1, it is not clear whether or not the mass of the building is homogeneous, and the rigid elements exist on the structural plane on an outer periphery and inside of the building.

(The different feature C)

The predetermined value of the rigidity ratio, in Invention 2, "is designed to be 2:1," whereas in Invention A-1, it is about 1.35 to 1.5:1.

3-2 Judgment

(1) Regarding the different feature A

As described "2-2(1)" above, it is not a substantial different feature.

(2) Regarding the different features B and C

Regarding the different features B and C of Invention 2 and Invention A-1, there is no description or suggestion in any of Evidence A No. 2 to Evidence A No. 10.

Then, it is acknowledged that Invention 2 is commonly equipped with a structure relating to the different features B and C to obtain an affect which concentrates deformation on a specific framing plane on which the absorber is installed, and maximally exerts a working effect of the absorber by generating twist vibrations with the structure when the structure is excited in the horizontal direction.

Therefore, it cannot be accepted that Invention 2 could have easily been invented by a person skilled in the art based on the inventions described in Evidence A No. 1 to Evidence A No. 10.

Furthermore, Evidence A No. 11 and Evidence A No. 12 are publications issued after the application of the patent was filed, so that they are not adopted as evidence for indicating the technical level at the time of filing the application of the case.

4. Summary

On the basis of the first reason for invalidation and the second reason for invalidation, results determined in "2-2" and "3-2" above are summarized as follows.

4-1 Regarding the first reason for invalidation

In comparison of Invention 1 and Invention A-1, since the different feature 2 exists, the two are not identical with each other, and the reason of invalidation is groundless.

4-2 Regarding the second reason for invalidation

(1) In comparison of Invention 1 and Invention A-1, the different feature 2 could be easily conceived by a person skilled in the art, so that there is a reason for invalidation.

(2) In comparison of Invention 2 and Invention A-1, the different features B and C exist, and it cannot be said that a person skilled in the art could have easily conceived, so that the reason of invalidation is groundless.

No. 7 Closing

As described above, since the patent relating to Invention 1 violates the provisions of Article 29 (2) of the Patent Act, it falls under Article 123(1)(ii), and should be invalidated. Also, the patent relating to Invention 2 may not be invalidated on the basis of the grounds and means of proof alleged by the demandant.

The costs in connection with the trial shall be respectively borne by the

demandant and the demandee under the provisions of Article 64 of the Code of Civil Procedure which is applied mutatis mutandis in the provisions of Article 169(2) of the Patent Act.

Therefore, the trial decision shall be made as described in the conclusion.

October 5, 2012

Chief administrative judge:	TAKAHASHI, Mitsunari
Administrative judge:	SUZUNO, Mikio
Administrative judge:	NAKAGAWA, Shinichi