

Trial decision

Invalidation No. 2013-800229

Tokyo, Japan

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The decision on the case of the patent invalidation trial between the above parties on Japanese Patent No. 5342062, entitled "Method for Manufacturing Free-Access Floor Component Member and Free-Access Floor Component Member" has resulted in the following trial decision:

Conclusion

The patent regarding the inventions according to claims 1 and 2 of Japanese Patent No. 5342062 is invalidated.

The costs in connection with the trial shall be borne by the demandee.

Reason

No. 1 History of the procedures

The history of the procedures of this case is as follows:

December 28, 2012	Filing of the patent application (Japanese Patent Application No. 2012-289078)
August 16, 2013	Registration of establishment of the patent (Japanese Patent No. 5342062)
December 16, 2013	Filing of the request for the invalidation trial
March 10, 2014	Submission of the written reply of the trial case
May 21, 2014	Notification of trial examination (drafting date)
June 17, 2014	Submission of an oral proceedings statement brief by the demandant

June 24, 2014	Submission of an oral proceedings statement brief by the demandee
July 8, 2014	Oral proceeding
July 22, 2014	Submission of a written statement by the demandee
August 11, 2014	Submission of a written statement by the demandant
August 26, 2014	Submission of a written statement by the demandant
February 17, 2015	Advance notice of a trial decision (drafting date)
August 17, 2015	Notice of conclusion of proceedings (drafting date)

For the record, an opportunity for filing a request for correction within a designated period was given to the demandee, no request for correction was filed by the demandee, and the designated period elapsed.

No. 2 The subject invention of the case

The inventions according to claims 1 and 2 of the Patent are recognized as follows, as described in claims 1 and 2 of the scope of claims in light of the description and illustration of the Description and the drawings of the Patent.

"[Claim 1]

A method of manufacturing a metallic free-access floor component member, characterized by the fact that it comprises:

processing a metallic material into the free-access floor component member and subjecting the free-access floor component member to a threading process; and then applying a hot dip galvanized coating on the free-access floor component member, the hot dip galvanized coating having a predetermined coating thickness of 5 to 150 μm ." (hereinafter referred to as "the Invention 1")

"[Claim 2] A metallic free-access floor component member that is hot dip galvanized by the method of manufacturing a free-access floor component member according to claim 1." (hereinafter referred to as "the Invention 2")

No. 3 Allegations of the parties

1. demandant's allegation

The demandant has sought a trial decision to the effect that the patent regarding the inventions according to claims 1 and 2 of the scope of claims of Japanese Patent No. 5342062 is invalidated and that the costs in connection with the trial shall be borne by the demandee, and submitted Evidence A Nos. 1 to 16 as the means of proof.

(Reason)

Since the inventions of the Patent according to claims 1 and 2 of the case would have been easily made by a person skilled in the art prior to filing of the patent application of the Patent of the case on the basis of the inventions described in Evidence A No. 1, Evidence A No. 2, Evidence A No. 3, Evidence A No. 4, and Evidence A No. 5, the inventions are not patentable under the provision of Article 29(2) of the Patent Act and therefore the Patent should be invalidated as falling under Article 123(1)(ii) of the same Act.

[Specific allegations]

The demandant has divided the Inventions 1 and 2 into the constituent components A to C as follows and presented the following allegations (1) to (4) in the written demand for trial.

"(Claim 1)

A: A method of manufacturing a metallic free-access floor component member,
B: characterized by the fact that it comprises: processing a metallic material into the free-access floor component member and subjecting the free-access floor component member to a threading process; and then applying a hot dip galvanized coating on the free-access floor component member, the hot dip galvanized coating having a predetermined coating thickness of 5 to 150 μm .

(Claim 2)

C: A metallic free-access floor component member that is hot dip galvanized by the method of manufacturing a free-access floor component member according to claim 1."

(1) With regard to Evidence A Nos. 1 to 7

(Note: The circled numbers are indicated by ○1, ○2, etc. The same applies hereafter.)

"○2 Explanation of the fact that the prior-art invention exists and evidence of the same fact

Page 2, Column 3, Line 50 to Column 4, Line 7, and Page 3, Column 5, Lines 14 to 15 of Evidence A No. 1 (Japanese Examined Utility Model Publication No. H6-9225, published on March 9, 1994), which is a publication distributed prior to filing of the application of the Patent, describes the configuration that corresponds to the constituent component A among the constituent components of claim 1.

Specifically, the same Evidence relates to a supporting device of a raised floor,

and Page 2, Column 3, Line 50 to Column 4, Line 7 of the same document describes that the device comprises ‘a columnar-shaped supporting unit body 3 including a bolt and the like; a fixing nut 4 and a height adjustment nut 5 that are adapted to be brought into threaded engagement with a thread groove formed at a position with a predetermined height of the supporting unit body 3; a fixing member 7 adapted for upright support of the supporting unit body 3 on a concrete floor 6; and a raised floor holding plate 8 fixed to the height adjustment nut 5 by a method such as welding and adapted to support the raised floor 1 that is overlapped with and disposed upon the upper surface of the raised floor holding plate 8,’ and Page 3, Column 5, Lines 14 to 15 of the same document describes that ‘a commercially available bolt can be used on an as-is basis as the supporting unit body 3.’

Further, Page 2, Upper left column, Lines 6 to 9, and Line 10 of Evidence A No. 2 (Japanese Unexamined Patent Application Publication No. S62-17416, published on January 26, 1987), which is a publication distributed prior to filing of the application of the Patent, describes the configuration that corresponds to the constituent component B of claim 1.

Specifically, Page 2, Upper left column, Lines 6 to 9 of the same Evidence reads as follows: ‘Typically, when an anticorrosive coating is provided on a bolt, etc., thread ridges are formed on the leg portion of the bolt by cutting, rolling, etc., and this bolt is immersed in a molten zinc bath and thus zinc galvanization is performed.’ Also, it is stated as the effects thereof in Page 2, Upper left column, Line 10 that ‘this zinc coating exhibits excellent anti-corrosion property.’

Further, Page 2, Column 2, lines 37 to 43 of Evidence A No. 3 (Japanese Unexamined Patent Application Publication No. H8-105422, published on April 23, 1996), which is a publication distributed prior to filing of the application of the Patent, describes the configuration that corresponds to the constituent component B of claim 1.

Specifically, the same Evidence Page 2, Column 2, Lines 37 to 43 reads as follows: ‘The amounts of deposition per se of the hot dip galvanized coating are specified in JIS H 8641 (Hot dip galvanized coatings). For example, 350 g/m² or more for HDZ35, and 550 g/m² or more for HDZ55 are specified. Accordingly, when the amount of deposition is 350 to 550 g/m², then the thickness of the coating layer will be 50 to 80 μm provided that zinc is evenly deposited on the entire bolt.’

Further, Page 2, Line 28 of Evidence A No. 4 (Japanese Unexamined Patent Application Publication No. 2008-156846, published on July 10, 2008), which is a publication distributed prior to filing of the application of the Patent, describes the configuration that corresponds to the constituent component A among the constituent

components of claim 1, and Page 8, Lines 24 to 28 thereof describes the configuration that corresponds to the constituent component B of claim 2.

Specifically, Page 2, Line 28 of the same Evidence states that ‘the present invention ... relates to a free-access floor,’ and Page 8, Lines 24 to 28 thereof states that ‘the receiving member 22 is made of metal but it suffices that the receiving member 22 is formed by a material having conductivity, and it may be formed by ... a hot dip galvanized coating material ... the threaded member 24 is made of metal but it suffices that the threaded member 24 is formed by a material having conductivity, and it may be formed by a hot dip galvanized coating material ...’

Further, Page 2, Column 1, Lines 47 to 49 of Evidence A No. 5 (Japanese Unexamined Patent Application Publication No. 2000-8593, published on January 11, 2000), which is a publication distributed prior to filing of the application of the Patent, describes the configuration that corresponds to the constituent component A among the constituent components of claim 1, and Page 4, Column 5, Lines 22 to 24 thereof describes the configuration that corresponds to the constituent component B of claim 1.

Specifically, Page 2, Column 1, Lines 47 to 49 of the same Evidence states that ‘the present invention relates to a floor load support tool comprising a pipe-type turnbuckle body and a manufacturing method thereof,’ and Page 4, Column 5, Lines 22 to 24 thereof states that ‘a hot dip galvanization may be applied in advance to the pipe body 10 and the nut body 20 that are cut so that they each have a predetermined length.’

Also, for reference, the column describing the durability of the steel bundle for housing (Page 2 of the document submitted) of Evidence A No. 6 (a brochure of metal building materials for detached houses, published on June 1, 2005), which is a publication distributed prior to filing of the application of the Patent, describes that ‘as the surface treatment, “hot dip galvanization” is applied to maintain good durability for a long period of time.’

Further, JEITA's Q & A about whiskering (available on the Internet) (Page 2 of the document submitted) of Evidence A No. 7, which seems to be a publication distributed prior to filing of the application of the Patent, reads as follows:

‘Electroplated coatings are applied in accordance with the specifications upon the underfloor OA floor support legs, bolts, and the like. You explain that you cannot obtain any meaningful effect even if paint coatings are applied on the electroplated coatings, but as a countermeasure to whiskers, ○1 hot dip galvanized coating and the like ... are contemplated as alternatives. Please explain whether or not you can expect that these alternatives exhibit the desired effects as the countermeasure for whisker formation.’ Also, as an answer to this question, it is described therein that ‘among the

alternatives contained in your question, we believe that ○1 the hot dip galvanized coating is effective.'

For reference, as the statement of JEITA is stated in the 'Q & A about whiskering' at '<http://it.jeita.or.jp/infosys/info/whisker/>.' The uppermost 'Caution about whiskers' is made available on June 2, 2003 and the second 'Beware of whiskers' is made available on January 16, 2002. Accordingly, it is clear that the third 'Q & A about whiskering' is (made available) on or before the second on January 16, 2002." (Written demand for trial 6. (4)○2)

(2) With regard to Evidence A Nos. 8 to 10

"As additional references, Evidence A Nos. 6 and 7 are hereto attached and as other information, Evidence A Nos. 8 to 10 is attached." (Written demand for trial 7. (1))

(3) With regard to Evidence A Nos. 11 to No. 15

"It is disclosed in Evidence A No. 11 that "in the case of a conventional steel bundle, for the purpose of rust prevention therefor, hot dip galvanization is performed (see paragraph [0010])" and that "also in the cases of the component member between the base member and long-axis screw bar and the component member between the top plate and the long-axis screw bar, its function is lost due to clogging occurring at the external thread portion of the long-axis screw bar when providing hot dip galvanization thereto, so that the coating must be provided at the minimum level (see paragraph [0014])." In view of these disclosures, it is clear that an upper limit is specified in the context of hot dip galvanization for the purposes of corrosion resistance and optimization of the relationship of threaded engagement.

Further, as examples other than hot dip galvanization, numerous examples are found as follows where upper limits are specified in the context of providing a coating upon a portion subjected to a threading process.

It is disclosed in Evidence A No. 12 that "there is provided a sprayed layer on the threaded portion of the bolt body, the sprayed layer being made from a metal or alloy having a body-centered cubic lattice structure such as molybdenum, chromium, tungsten, etc. and the metal or alloy sprayed layer having the thickness of 10 to 150 μm (Page 2, Upper right column, Lines 14 to 18)." It is also disclosed therein that "the thickness exceeding 150 μm is not preferable because it may not only cause increase in the manufacturing costs but also negatively affect the threaded engagement with a nut (see Page 2, Upper left column, Lines 15 to 18)." In view of these disclosures, an

upper limit is specified for the purpose of optimization of the relationship of threaded engagement.

It is disclosed in Evidence A No. 13 that "it is preferable that the thickness of the alumite layer falls within the range of 1 to 25 μm . This is because the corrosion resistance and the scratch resistance become insufficient when the thickness is less than 1 μm and cracks or abrasions may occur in the course of fixation when the thickness is larger than 25 μm (see paragraph [0018])." In view of this disclosure, a lower limit and an upper limit are specified for the purposes of simultaneously ensuring corrosion resistance and optimization of the relationship of threaded engagement (prevention of cracks and abrasions occurring in the course of fixation).

It is disclosed in Evidence A No. 14 that "the coating thickness of the coating for the threaded portions of a bolt and a nut for coupling parts with each other cannot exceed 100 μm so as to ensure the essential function as threaded fasteners (see paragraph [0003])." In view of this disclosure, the techniques disclosed in same document also specify the upper limit for the purpose of the optimization of the relationship of threaded engagement.

It is disclosed in Evidence A No. 15 that "it is preferable that the thickness of the coating is 1 μm or more and less than 20 μm . When the thickness of the coating is less than 1 μm , it is difficult to obtain a sufficient corrosion resistance property. Meanwhile, when the thickness of the coating is equal to or larger than 20 μm , there will not be any significant change in the corrosion resistance. Rather, increase in the thickness of the coating (exceeding 20 μm) may negatively affect the dimensional accuracy of the parts (see paragraph [0026])." It is also disclosed therein that "the magnesium alloy bolt having the thickness of the coating of 25 μm was not able to be fastened to the nut. This is thought to be caused by the fact that increase in the thickness of the coating led to increase in the dimensions (outer diameter) of the bolt, making it impossible to bring the bolt into threaded engagement with the nut (see paragraph [0055])." In view of these disclosures, the techniques disclosed in the same document also specify the lower limit and the upper limit for the purposes of simultaneously ensuring corrosion resistance and optimization of the relationship of threaded engagement." (Oral proceedings statement brief 4. 4-3)

(4) With regard to the combination of the publicly known art and the well-known art A. "When the patented Invention according to claim 1 of the case is compared with the invention described in Evidence A No. 1, they correspond to each other in that they are a metallic free-access floor component member. Meanwhile, they differ from each

other in that the free-access floor component member of the patented invention according to claim 1 is processed and threaded, and then a hot dip galvanized coating having a predetermined coating thickness of 5 to 150 μm is applied upon the free-access floor component member while Evidence A No. 1 only describes use of a generally commercially available bolt as the supporting member and is silent about presence or absence of a coating and the coating thickness thereof.

However, as a general bolt, Evidence A No. 2 discloses a technique according to which thread ridges are first formed and then a hot dip galvanized coating is applied thereon, and Evidence A No. 3 describes application of a coating having a coating thickness of 50 μm or more or a coating thickness of 80 μm or more in accordance with the JIS Standard in the context of application of hot dip galvanized coatings upon bolts.

When the above aspects are taken into consideration, it is disclosed in Evidence A No. 1 to use a generally commercially available bolt as the supporting member which is the component member of the free-access floor. Also, as the generally commercially available bolt, Evidence A No. 2 discloses the technique of first forming thread ridges and then applying the hot dip galvanized coating, and also discloses the effect of increase in the anti-corrosion property by application of the hot dip galvanization. Further, Evidence A No. 3 discloses a technique according to which the coating thickness is defined to be equal to or larger than 50 μm . In view of these disclosures, it would have been easily conceived of by a person who has ordinary skill in the technical field to which the invention pertains to modify the bolt of the supporting member of the Evidence A No. 1 and thus make it correspond to the bolts of Evidence A Nos. 2 and 3.

In other words, when it is attempted to create the supporting member which is the component member of the free-access floor, then the Invention is brought to completion simply as the result of using the commercially available bolt.

Also, as the evidence that substantiates the ease of arriving at the features at issue, Evidence A No. 4 and Evidence A No. 5 disclose general application of hot dip galvanization upon the component members of the free-access floor, and also in view of the fact that the coating thicknesses are defined in accordance with the JIS Standard as stated in Evidence A No. 3, it can be said that the feature would have been easily conceived of by a person who has ordinary skill in the technical field to which the invention pertains.

The following points may also be mentioned for reference. Evidence A No. 6 describes performing a surface treatment for a steel bundle for housing as hot dip galvanization treatment and thus maintaining excellent durability for a long period of

time. The JEITA document of Evidence A No. 7 describes that application of hot dip galvanization on the OA floor support legs is effective as a countermeasure to whisker formation." (Written demand for trial 6. (4)○3)

B. "It is obvious that coatings are provided upon the threaded portions in Evidence A Nos. 2 and 3 for the purpose of ensuring the anti-corrosion property and that the coatings are applied to the extent that they ensure the functionality as threaded fasteners unless the coatings are provided after the threaded portions have been fastened. If the aim of the 150 μm which is the upper limit of the Patent is "the optimization of the relationship of threaded engagement" as alleged by the demandee, then it can be said that Evidence A Nos. 2 and 3 obviously specify (the upper limit of) 150 μm or less.

In other words, this is because the function of threaded fasteners cannot be obtained if the relationship of threaded engagement is not appropriately defined.

This fact is also clear from Evidence A Nos. 11 to 14 (as revised in the oral proceedings as Evidence A No. 15) describing the well-known art which will be later described." (Oral proceedings statement brief 4. 4-3)

C. "Even when Evidence A No. 1 does not contain any explanation associated with rust prevention, it is generally clear that the rust prevention treatment is performed in the context of double-floor component members.

Further, it is clear that the supporting device of the raised floor of Evidence A No. 1 achieves height adjustment by bringing the supporting member body and the height adjustment nut into threaded engagement with each other, which understandably means that it requires optimization of the threaded engagement.

In view of the foregoing aspects, the supporting device of the raised floor of Evidence A No. 1 is obvious and it is also obvious to attempt optimization of the threaded engagement from the fact that the generally commercially available bolt subjected to the rust prevention treatment is used on an as-is basis and moreover the fact that this is nothing but a bolt, so that these facts provide sufficient motivation." (Oral proceedings statement brief 4. 4-4)

D. "As disclosed in Evidence A Nos. 11 to 14, it is well known to specify an upper limit for the coating thickness of an element that covers a threaded portion, and this fact serves as evidence substantiating the fact that the technical idea of "optimization of the coating thickness" described in the above (B) had been disclosed." (Oral proceedings statement brief 4. 4-5)

[Means of proof]

Evidence A No. 1: Japanese Examined Utility Model Publication No. H6-9225

Evidence A No. 2: Japanese Unexamined Patent Application Publication No. S62-17416

Evidence A No. 3: Japanese Unexamined Patent Application Publication No. H8-105422

Evidence A No. 4: Japanese Unexamined Patent Application Publication No. 2008-156846

Evidence A No. 5: Japanese Unexamined Patent Application Publication No. 2000-8593

Evidence A No. 6: A copy of brochure of metal building materials for detached houses

Evidence A No. 7: A copy of "Q & A about whiskering" on the website of JEITA (the Japan Electronics and Information Technology Industries Association) (<http://it.jeita.or.jp/infosys/info/whisker/qa.html>)

Evidence A No. 8: Japanese Unexamined Patent Application Publication No. 2010-592

Evidence A No. 9: Japanese Unexamined Patent Application Publication No. H2-80805

Evidence A No. 10: A copy of Screw Products Brochure 2008 edition, Page 233

Evidence A No. 11: Japanese Unexamined Patent Application Publication No. 2012-241349

Evidence A No. 12: Japanese Unexamined Patent Application Publication No. H3-41207

Evidence A No. 13: Japanese Unexamined Patent Application Publication No. 2008-232366

Evidence A No. 14: Japanese Unexamined Patent Application Publication No. 2008-185091

Evidence A No. 15: Japanese Unexamined Patent Application Publication No. 2011-6778

Evidence A No. 16: CD-ROM of Japanese Utility Model Application No. H3-83364 (Japanese Unexamined Utility Model Application Publication No. H5-35950)

2 The demandee's allegation

The demandant has sought a trial decision to the effect that the demand for trial of the case is groundless and that the costs in connection with the trial shall be borne by the demandant, and alleged, in the written reply dated March 10, 2014, the oral proceedings statement brief dated June 24, 2014, and the written statement dated July

22, 2014, that none of the grounds for invalidation as alleged by the demandant is reasonable, the specific allegations of which are taken therefrom and stated in the following items (1) to (8). Also, the demandee has submitted Evidence B Nos. 1 to 11 as the means of proof.

[Specific allegations]

(1) "However, the patentability of the Patent of the case has been found in the fact that the coating thickness is restricted so that it falls within a predetermined range for the purposes of simultaneously ensuring the corrosion resistance and the optimization of the relationship of threaded engagement, as can be read from claim 1 of the Patent, which recites 'a predetermined coating thickness of 5 to 150 μm .'

Meanwhile, with regard to the coating thickness of the hot dip galvanized coating, no ground for particularly limiting the range of the upper limit of the coating thickness can be ascertained in any document of the evidence submitted by the demandant (Evidence A Nos. 1 to 10). The upper limit of the coating thickness is a significant element that affects the technical problem of the Patent, i.e., the optimization of the relationship of threaded engagement." (Written reply, Page 3, Lines 7 to 12)

(2) "As discussed above, in any one of the documents of the evidence (Evidence A Nos. 1 to 10) submitted by the demandant, no description is found that would identify a particular upper limit of the coating thickness of the hot dip galvanized coating for the purposes of simultaneously ensuring the corrosion resistance and the optimization of the relationship of threaded engagement, still less any suggestion associated with the upper limit of the coating thickness.

As a result, it is not possible to construct a logical reasoning that would identify a particular upper limit of the coating thickness of claim 1 of the Patent from the documents of the evidence (Evidence A Nos. 1 to 10)." (Written reply, Page 6, Lines 16 to 20)

(3) "As can be seen from the above (3)(B) ○5, in any one of the documents of the evidence (Evidence A Nos. 1 to 10) submitted by the demandant, no description is found that would identify a particular upper limit of the coating thickness of the hot dip galvanized coating. As a result, obviously, in any one of the documents of the evidence (Evidence A Nos. 1 to 10) submitted by the demandant, the technical idea is not disclosed according to which the upper limit of the coating thickness of the hot dip galvanized coating is specifically defined in order to solve the technical problem of

optimization of the relationship of threaded engagement." (Written reply, Page 8, Lines 15 to 19)

(4) "Accordingly, the inventions of claims 1 and 2 of the Patent, which particularly identify the optimum range of the coating thickness of the hot dip galvanized coating and thereby provide a technical solution to the technical problem of optimization of the relationship of threaded engagement between an external thread and an internal thread, would not have been easily made by a person skilled in the art, and therefore the inventions of claims 1 and 2 are patentable under the provision of Article 29(2) of the Patent Act." (Written reply, Page 10, Lines 1 to 4)

(5) "Here, zinc which is the material of the coating of the Patent is different from the materials comprising the coatings described in Evidence A Nos. 12 to 15, so that the former differs from the latter in its characteristics such as stiffness, surface roughness or coefficient of friction of the coating, so that the statements of Evidence A Nos 12 to 15 cannot be relied upon as reference information on the upper limit value of the coating thickness of the hot dip zinc coating of the Invention. This is also clear from the fact that the numerical ranges of the coating thickness of the documents of Evidence A Nos 12 to 15 differ from each other. As a result, among the documents of the evidence submitted by the demandant, no description can be found that is associated with specifying the upper limit value of the coating thickness of the hot dip zinc coating. Accordingly, the demandant erred in her allegation, arguing for the obviousness for the upper limit of the coating thickness of the hot dip zinc coating to be specified as 150 μm ." (Oral proceedings statement brief, Page 6, Lines 3 to 11)

(6) "○1 First, in the trial case, among the documents submitted by the demandant as the evidence (Evidence A Nos. 1 to 5), there is only one document (Evidence A No. 3) in which numerical values of the coating thickness of a hot dip zinc coating are described. The statement of the evidence (Evidence A No. 3), as stated in Page 4, Lines 5 to 14 of the written reply of the trial case (dated March 10, 2014), particularly identifies the lower limit of the coating thickness of the hot dip zinc coating but does not particularly identify the upper limit thereof.

○2 As such, the evidence submitted by the demandant (Evidence A Nos. 1 to 5) in the first place fails to describe the upper limit value of the coating thickness of the hot dip zinc coating on the threaded portion of the free-access floor component member, and no motivation can be created therefrom to particularly define the upper limit value." (the

written statement, Page 2, Lines 9 to 16)

(7) "The evidence submitted by the demandant (Evidence A Nos. 1 to 5) fails to describe or suggest particular definition of the coating thickness of the hot dip zinc coating on the threaded portion of the free-access floor component member for the purpose of the Patent, i.e., the optimization of the relationship of threaded engagement. As a result, since the purposes of particularly defining the numerical values differ between the Patent and the evidence submitted by the demandant (Evidence A Nos. 1 to 5), the inventive step of identifying the upper limit of the coating thickness of the hot dip zinc coating as 150 μm is not denied and the significance of the critical range thereof does not need to be examined." (the written statement, Page 4, Lines 10 to 15)

(8) "According to the evidence submitted by the demandant (Evidence A No. 11), it is only disclosed that 'the coating must be provided at the minimum level' and nothing is described regarding to what extent the coating thickness of the coating is specifically allowable." (the written statement, Page 6, Lines 4 to 6)

[Means of proof]

Evidence B No. 1: A copy of JIS H 8641(hot dip zinc coating)

Evidence B No. 2: A copy of the court decision by the Intellectual Property High Court 2005 (Gyo-Ke) No. 10445

Evidence B No. 3: Japanese Unexamined Patent Application Publication No. H7-308728

Evidence B No. 4: Japanese Unexamined Patent Application Publication No. H8-90138

Evidence B No. 5: Japanese Unexamined Patent Application Publication No. H9-295100

Evidence B No. 6: Japanese Unexamined Patent Application Publication No. 2004-36133

Evidence B No. 7: Japanese Unexamined Patent Application Publication No. 2005-299218

Evidence B No. 8: Japanese Unexamined Patent Application Publication No. 2010-53516

Evidence B No. 9: A copy of the court decision of an action seeking revocation of a trial decision 1994 (Gyo-Ke) No. 30

Evidence B No. 10: Japanese Examined Patent Publication No. H4-43980

Evidence B No. 11: A copy of the court decision of an action seeking revocation of the

decision of revocation of a patent 2005 (Gyo-Ke) No. 10222

No. 4 Matters described in Evidence A

1 Matters described in Evidence A

(1) Evidence A No. 1

Evidence A No. 1, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a supporting device of a raised floor, the following technical matters along with the drawings (the underlines are given by the Body).

A. "[Claim 1] A supporting device of a raised floor characterized by the fact that it comprises: a supporting member having a thread groove formed at a position with a predetermined height of a columnar-shaped supporting unit body having a rotation operation groove at the top thereof and having a raised seat portion at the bottom thereof, the raised seat portion being placed on a floor, wherein a fixing nut for fixation and a height adjustment nut for supporting the raised floor are vertically placed in threaded engagement; a fixing member arranged at the fixation portion with respect to the floor surface and above the floor surface, the fixing member including a supporting portion that brings the supporting member into rotatable fitment above the seat portion thereof, the supporting member being adapted for upright support of the supporting unit body on the floor; and a raised floor holding plate to which the adjustment nut is secured, the raised floor holding plate including a projection for positioning that is brought into locking engagement with the lower surface of the raised floor overlapped with the upper surface of the raised floor holding plate."

B. "[Detailed Description of Device]

[Technical Field]

The present device relates to a supporting device of a raised floor, and in particular to a supporting device of a raised floor that is capable of being readily constructed and achieving adjustment of the height position of the raised floor and correction of the loosening of the raised floor can be achieved by simple operations via the upper surface of the raised floor after installation thereof." (Page 1, Col. 1, Lines 13 to Col. 2, Line 3)

C. "[Embodiment]

The embodiments of the device are described below with reference to the

drawings.

FIGS. 1 to 5 illustrate one embodiment of the device, in which a supporting device 2 of a raised floor 1 is mainly configured by a columnar-shaped supporting unit body 3, for example, including a bolt and the like; a fixing nut 4 and a height adjustment nut 5 that are adapted to be brought into threaded engagement with a thread groove 31 formed at a position with a predetermined height of the supporting unit body 3; a fixing member 7 adapted for upright support of the supporting unit body 3 on a concrete floor 6; and a raised floor holding plate 8 fixed to the height adjustment nut 5 by a method such as welding and adapted to support the raised floor 1 that is overlapped with and disposed upon the upper surface of the raised floor holding plate 8." (Page 2, Col. 3, Line 47 to Col. 4, Line 7)

D. "Further, since generally commercially available bolts can be used on an as-is basis as the supporting unit body 3 in accordance with this embodiment, this embodiment is extremely economical." (Page 3, Col. 5, Lines 14 to 16)

E. Since typical bolts are made of metal, the bolt at issue can be identified as a metallic bolt.

In view of the above descriptions A to E, it is recognized that the following invention is described in Evidence A No. 1:

"A generally commercially available metallic bolt that is used as a supporting unit body 3 in a supporting device of a raised floor, the supporting device comprising: a columnar-shaped supporting unit body 3 including a bolt and the like; a fixing nut 4 and a height adjustment nut 5 that are adapted to be brought into threaded engagement with a thread groove formed at a position with a predetermined height of the supporting unit body 3; a fixing member 7 adapted for upright support of the supporting unit body 3 on a concrete floor 6; and a raised floor holding plate 8 fixed to the height adjustment nut 5 by a method such as welding and adapted to support the raised floor 1 that is overlapped with and disposed upon the upper surface of the raised floor holding plate 8." (hereinafter referred to as "the Invention of Evidence A No. 1")

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(2) Content of description of Evidence A No. 2

Evidence A No. 2, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a method for manufacturing a threaded

fastener product, the following technical matters along with the drawings.

A. "Typically, when an anticorrosive coating is provided on a bolt, etc., thread ridges are formed on the leg portion of the bolt by cutting, rolling, etc., and this bolt is immersed in a molten zinc bath and thus zinc galvanization is performed.

Although the zinc galvanization is superior in its corrosion resistance, the galvanized coating is uneven and thick, so that in some cases the bolt fails to be brought into threaded engagement with the nut, necessitating operation for cutting and adjusting the outer shape so that it is allowed to have appropriate dimension values." (Page 2, Upper left column, Lines 6 to 13)

(3) Content of description of Evidence A No. 3

Evidence A No. 3, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to torque share type bolt, the following technical matters along with the drawings.

A. "[0004]

[Technical Problem] Bolts on which a hot dip galvanized coating is applied have been recently used in view of rust prevention for structures. There is also a need of performing hot dip galvanization for the above torque share type bolt.

[0005] However, when a hot dip galvanized coating is provided upon a conventional torque share type bolt, the dimensions of the bolt become large as a whole as a result of formation of the coating layer, which may prevent the inner sleeve of a fastening machine from brought into fitment with the pintail.

[0006] Specifically, the amount of deposition as such of the hot dip galvanized coating is defined in JIS H 8641 (hot dip galvanized coating), and, for example, 350 g/m² or more for HDZ35, and 550 g/m² or more for HDZ55 are specified. Accordingly, when the amount of deposition is 350 to 550 g/m², then the thickness of the coating layer will be 50 to 80 μm provided that zinc is evenly adhered on the entire bolt. In this case, as there is provided some dimensional allowance between the above pintail and the inner sleeve, there should be no trouble in the fitment between the two elements. However, as the above amount of deposition may vary, and it will be ensured in normal cases that the amount of deposition thereof is somewhat larger than the lower limit value even when the coating is to be provided in accordance with the JIS Standards, the coating tends to become partly thick, which in turn tends to cause partial increase in the thickness of the coating, undermining the fitment property between the above pintail and the inner sleeve."

(4) Content of description of Evidence A No. 4

Evidence A No. 4, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a free-access floor, the following technical matters.

A. "[0004]

The floor panel 202 is supported by metallic support legs 210 arranged at four corners of the floor surface of the skeleton 208, and spaces for electric wiring and the like are formed between the floor surface of the skeleton 208 and the floor panel 202."

B. "[0051]

A metallic receiving member 22 is provided on the floor panel supporting surface of the support leg 16. As illustrated in FIGS. 4 and 5 which are enlarged views of the region including the receiving member 22, a through-hole 26 through which the metallic threaded member 24 as a fixing means extends is formed from the upper surface to the lower surface of the floor panel 12. Also, the threaded member 24 is brought into threaded engagement with the internal thread portion 28 provided in the receiving member 22 and thus the floor panel 12 is secured to the receiving member 22. Also, in this state, the head of the threaded member 24 is in contact with and abuts on a hot dip galvanized coating steel plate 20 provided on the upper surface of the floor panel 12.

[0052]

By virtue of this structure, fastening the threaded member 24 causes the hot dip galvanized coating steel plate 20 provided on the lower surface of the floor panel 12 to be crimped to the receiving member 22 and the head of the threaded member 24 to be crimped to the hot dip galvanized coating steel plate 20 provided on the upper surface of the floor panel 12."

C. "[0070]

Also, although the threaded member 24 is made of metal, it suffices that it is formed by a material having conductivity, and it may be formed by hot dip galvanized coating material, aluminum die cast, etc."

(5) Content of description of Evidence A No. 5

Evidence A No. 5, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a floor load support tool and a manufacturing method thereof, the following technical matters.

A. "[0002]

[Prior Art] A steel bundle (d) is traditionally known that is formed by, as illustrated in

FIGS. 9 and 10, subjecting the both ends of a thick pipe (p) to the drawing process; then bringing a floor receiving member (b) into threaded engagement with an end of a pipe-type turnbuckle body (a) formed by forming, for example, a right-hand screw (m) by a tap on the inner surface of one of the drawn portions and forming a left-hand screw (n) opposite to the former by a tap on the inner surface of the other of the drawn portions; and bringing a bottom member (c) into threaded engagement with the other end thereof."

(6) Content of description of Evidence A No. 6

Evidence A No. 6, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a steel bundle for housing, the following technical matters.

A. "Steel bundle for housing Sun-Support

(Omitted)

2 Power-up

...

- The individual members are made of steel and free from degradation caused by ants and decay fungus, etc.

3 Durability

- 'Hot dip galvanization' is applied as the surface treatment to maintain good durability for a long period of time."

(7) Content of description of Evidence A No. 7

Evidence A No. 7, which was made publicly available via the Internet prior to filing of the application of the Patent, describes, in relation to the Q & A about whiskering, the following technical matters.

A. "■ ■ ■ Question and Answer on the Problem of Whisker Formation ■ ■ ■

(Omitted)

With regard to the elements for which the countermeasures are necessary, should the countermeasure be provided for all the constituent components including air conditioning devices, power sources, anti-seismic fixing/reinforcing structures, free-access floors of computer rooms?

Countermeasures should be given to materials on which electroplated coatings are made. For details, please contact your computer manufacturers.

(Omitted)

In accordance with the specifications, electroplated coatings are provided on

underfloor OA floor support legs, bolts, and other relevant parts. Although you explain that you cannot obtain any meaningful effect even if paint coatings are applied on the electroplated coatings, ○1 hot dip galvanized coating, ○2 rust proof treatment and aqueous coating with less solvent, ○3 chromate plating, ○4 nickel plating, and the like are contemplated as alternatives for countermeasures to whiskering. Please explain whether or not you can expect that these alternatives exhibit the desired effects as the countermeasure to whisker formation.

Among the alternatives contained in your question, we believe that ○1 hot dip galvanized coating is effective. We do not have clear answers with regard to the alternatives ○2 to ○4. In any case, please use as little parts and components as possible that may induce formation of whiskers."

(8) Content of description of Evidence A No. 8

Evidence A No. 8, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a hot dip galvanized coating nut, the following technical matters.

A. "[0002]

When a bolt having hot dip galvanized coating thereon (hereinafter the term "hot dip galvanized coating" is used, which is a generic term that refers to hot dip metal coatings such as hot dip galvanized coatings and hot-dip zinc-aluminum alloy coatings) is used in combination with a nut having a hot dip galvanized coating thereon, a gap that corresponds to the amount of a coating is provided between an external thread and an internal thread and the coating has to be provided. The gap is created by reducing the size of the thread ridges on the bolt with respect to its standard size (undersized), or increasing the size of the thread ridges of the nut (oversized)."

(9) Content of description of Evidence A No. 9

Evidence A No. 9, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a method of manufacturing a drill screw, the following technical matters.

A. "Specifically, the invention according to claim 1 is a method of manufacturing a drill screw comprising forming a drill section at the tip of a shank by forging or cutting; forming thread ridges on the shank; and performing a carburizing and quenching or carbonitriding and quenching treatment and then a tempering treatment, characterized by the fact that it further comprises covering at least the surfaces of the thread ridges and the drill section by a zinc coating after the tempering treatment, and then

performing a heating treatment.

In this case, as a means for forming zinc coatings upon the surfaces of the thread ridges and the drill section, means may be adopted including zinc electroplating as recited in claim 2, or alternatively hot dip plating by immersing them in a zinc melt bath, forming zinc coatings by thermal spraying on the surfaces of the thread ridges and the drill section, and similar methods." (Page 2, Lower right column, Line 16 to Page 3, Upper left column, Line 9)

(10) Content of description of Evidence A No. 10

Evidence A No. 10, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a hot dip galvanized coating, the following technical matters.

A. "The types and qualities according to the hot dip galvanized coatings (JISH8641: 1999) are summarized in the table depending on the amounts of deposition and the number of rounds of copper sulfate testing" (Page 233, Central column)

B. It is described in the table that, in the row where the "Type" is "Type 2-35" and the "Symbol" is "HDZ35," the "amount of deposition g/m²" is "350 or more", the "Application example (reference)" is "steel materials and steel products with the thickness of 1 mm or more and 2 mm or less, bolts and nuts with the diameter of 12 mm or more, and washer products with the thickness of more than 2.3 mm."

(11) Content of description of Evidence A No. 11

Evidence A No. 11, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a steel bundle, the following technical matters.

A. "[0010]

In a traditional steel bundle, a base member 51 and a long-axis screw bar 52 below the base member 51 are welded to each other to form a single component member, and likewise, a top plate 56 and a long-axis screw bar 54 above the top plate 56 are welded to each other to form a single component member, and thus the steel bundle comprises three component members including the above two component members and a central turnbuckle pipe 53. In the context of this state of the art steel bundle, hot dip galvanization is performed for the purpose of rust prevention therefor. In this galvanization, coating thickness in the order of 50 μ is required, and overlapping is provided in particular on the side of the internal thread in excess of what is required to comply with specifications and standards that govern threaded engagement

relationships, which is also a cause of the above lifting phenomena."

B. "[0014]

Meanwhile, also in the cases of the component member between the base member and long-axis screw bar and the component member between the top plate and the long-axis screw bar, when providing hot dip galvanization thereto, its function is lost due to clogging occurring at the external thread portion of the long-axis screw bar, so that the coating must be provided at the minimum level. As a result, the amount of coatings on the base member and the top plate becomes insufficient, leading to troubles associated with the rust prevention effects. It is also a problem to be addressed by the present invention to avoid troubles associated with the coating effects."

(12) Content of description of Evidence A No. 12

Evidence A No. 12, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a bolt, the following technical matters. A. "Also, the appropriate thickness of the sprayed layer 4 is, as described above, 10 to 150 μm . If the thickness is less than 10 μm , the sprayed layer 4 may be damaged at the time of threaded engagement of the nut. The thickness exceeding 150 μm is not preferable because it may not only cause increase in the manufacturing costs but also negatively affect the threaded engagement with a nut 5."(Page 2, Upper right column, Lines 13 to 18)

(13) Content of description of Evidence A No. 13

Evidence A No. 13, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a fastening tool and a fastening method using the same, the following technical matters.

A. "[0018]

It is preferable that the thickness of the alumite layer falls within the range of 1 to 25 μm . This is because the corrosion resistance and the scratch resistance become insufficient when the thickness is less than 1 μm and cracks or abrasions may occur in the course of fixation when the thickness is larger than 25 μm ."

(14) Content of description of Evidence A No. 14

Evidence A No. 14, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a method of preventing corrosion and loosening of a bolt and a nut and a wrench used therefor, the following technical matters.

A. "[0003]

With regard to the corrosion resistance as such of a structure, a good anti-corrosion property can be obtained by application of the above powder coating material of thermoplastic polyethylene terephthalate-based polymer. Meanwhile, the coating thickness of the coating for the threaded portions of a bolt and a nut for coupling parts with each other cannot exceed 100 μm so as to ensure the essential function as threaded fasteners, leaving some uncertainty about the anticorrosion property of this portion. When the coating is 100 μm or less in its thickness, it is difficult to completely exclude pinholes, causing creation of a small exposed metal surface. This is the problem of progressive corrosion that begins at and spreads from this portion. In particular, when the weather resistant property up to 60 years is required for a railway beam (a beam bridging two power poles on both sides of the railway to support wires) or the like in coastal areas where salt damage frequently occurs, there are concerns about corrosion that spreads from the pinhole at the end of the bolt protruding from the bolt-nut assembly connecting the beam members and oxidation corrosion that spreads from a pinhole existing in the threaded engagement portion into which rainwater enters."

(15) Content of description of Evidence A No. 15

Evidence A No. 15, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to a magnesium alloy linear body, bolt, nut, and washer, the following technical matters.

A. "[0026]

It is preferable that the thickness of the coating is 1 μm or more and less than 20 μm . When the thickness of the coating is less than 1 μm , it is difficult to obtain a sufficient corrosion resistance property. Meanwhile, when the thickness of the coating is equal to or larger than 20 μm , there will not be any significant change in the corrosion resistance. Rather, increase in the thickness of the coating (exceeding 20 μm) may negatively affect the dimensional accuracy of the parts."

B. "[0055]

It can be understood from the results of Table 4 that the magnesium alloy bolt having the coating thereon did not exhibit discoloration for more than 2,000 hours in the salt water corrosion environment and it has a good corrosion resistance property compared with the magnesium alloy bolt without a coating (the thickness of the coating is zero). However, the magnesium alloy bolt having the thickness of the coating of 25 μm was not able to be fastened to the nut. This is thought to be caused by the fact that

the increase in the thickness of the coating led to the increase in the dimensions (outer diameter) of the bolt, making it impossible to bring the bolt into threaded engagement with the nut."

(16) Content of description of Evidence A No. 16

Evidence A No. 16, which is a publication distributed prior to filing of the application of the Patent, describes, in relation to support legs for supporting floor panels, the following technical matters.

A. "[0003]

Thus, in order to form the above free-access floor 8 (hereinafter referred to as the floor), the support legs that supports the floor panel 7 at its four corners comprises, as illustrated in FIG. 3, a support bar 2 having threads on its outer surface, the support bar 2 being vertically provided on and fixed by welding 1a to a base plate 1 that comprises a square steel plate having an appropriate thickness and a predetermined surface area; and an adjustment table 3 having an upper surface 3a on which the floor panel 7 is placed, the adjustment table 3 being provided on this support bar 2 in threaded engagement therewith. It should be noted that the reference number 9 indicate a lock nut for locking of the adjustment table 3 in its adjusted position."

No. 5 Judgment on the body

1 Regarding the Invention 1

(1) Comparison

The Invention 1 is compared with the Invention of Evidence A No. 1.

Since the supporting device of the raised floor of the Invention of Evidence A No. 1 is constituted by the supporting unit body 3, the "generally commercially available metallic bolt used as the supporting unit body 3" of the Invention of Evidence A No. 1 corresponds to the "metallic free-access floor component member" of the Invention 1.

As such, they correspond to each other in the following feature:

(Corresponding feature)

"Metallic free-access floor component member"

Meanwhile, they differ from each other in the following feature:

(The different feature 1)

The Invention 1 comprises "processing a metallic material into the free-access floor component member and subjecting the free-access floor component member to a threading process; and then applying a hot dip galvanized coating on the free-access floor component member, the hot dip galvanized coating having a predetermined coating thickness of 5 to 150 μm ," in contrast to which the Invention of Evidence A No. 1 does not include a similar feature.

(The different feature 2)

While the Invention 1 is "a method of manufacturing a metallic free-access floor component member," the Invention of Evidence A No. 1 differs from the Invention in that the Invention of Evidence A No. 1 is the generally commercially available metallic bolt itself that is used as the supporting unit body 3.

(2) Judgment of the different feature

A. With regard to the Different Feature 1

[With regard to the feature of first performing threading process and then applying the hot dip galvanized coating]

(A) It is described in Evidence A No. 2, in relation to the method for manufacturing a threaded fastener product, that "typically, when an anticorrosive coating is provided on a bolt, etc., thread ridges are formed on the leg portion of the bolt by cutting, rolling, etc., and this bolt is immersed in a molten zinc bath and thus zinc galvanization is performed." It can be recognized to be a common practice to manufacture threaded fastener products having thread ridges thereon by a manufacturing method of first performing the threading process and then applying the hot dip galvanized coating, which also applies to the case of the metallic bolt of the Invention of Evidence A No. 1 (in addition, the same methodology is also described in Evidence A No. 9, indicating that the methodology pertains to the well-known art).

Also, since the metallic bolt of the Invention of the supporting device of the raised floor of Evidence A No. 1 (which corresponds to the "free-access floor" of the Invention 1) is a "generally commercially available metallic bolt," it can be easily made by a person skilled in the art to manufacture this bolt as the one that is manufactured by the manufacturing method of first subjecting this bolt to the general or well-known threading process as described in Evidence A No. 2 and then applying the hot dip galvanized coating thereon.

(B) It is noted that application of the hot dip galvanized coating to the free-access floor

component member for rust prevention and improved durability is also well known (for example, see Evidence A Nos. 6, 7, 11, etc.) and it is unreasonable to construe that the free-access floor of the above (A) is not intended for application of the hot dip galvanized coating thereon.

(C) Also, it is described in Evidence A No. 1 that "a heavy item, for example, a large OA device or the like is placed on the raised floor (Page 2, Col. 3, Lines 10, 11)" and it is noted that the supporting unit body 3 of the Invention of Evidence A No. 1 is intended to be used in an environment where it includes thereon an OA device. In this context, for example, Evidence A No. 7 states that application of electroplated coatings of zinc upon the support legs, bolts, and similar parts of a floor including OA devices for rust prevention for the steel materials involves the problem that it may cause troubles of the OA devices due to formation of whiskers and also states that application of hot dip galvanization is effective as a countermeasure to whiskering. In view of these statements, it is recognized to be desirable in terms of the intended usage to apply electroplated coatings of zinc on the metallic bolt of the Invention of Evidence A No. 1, and application of the hot dip galvanized coating to the bolt of the Invention of Evidence A No. 1 is recognized to be desirable. Hence, no difficulty is recognized by a person skilled in the art in drawing on modes of this kind that are recognized as desirable.

[With regard to the feature of the predetermined coating thickness of 5 to 150 μm]

(D) The coating thickness of the hot dip galvanized coating needs to be applied so as to have a predetermined thickness or more than that by its very nature as the rust prevention coating. Meanwhile, it is a common general technical knowledge that the coating thickness of the coating needs to be adjusted so that it does not cause trouble in the threaded engagement between the bolt and the nut when a coating is to be made thereon (for example, see Evidence A Nos. 2, 3, and 11 to 15).

(E) Also, it is natural to think that it is necessary to adjust the coating thickness so that it falls within the range between the minimum coating thickness necessary for rust prevention and the maximum coating thickness that does not cause trouble to the threaded engagement on the basis of the viewpoint of the rust prevention and the threaded engagement when applying a hot dip galvanized coating on a metallic bolt, so that it is a matter of design variation that can be defined and selected as appropriate by a person skilled in the art to adopt a coating thickness such as the "predetermined coating

thickness of 5 to 150 μm " with the rust prevention and threaded engagement properties taken into account.

[Summary]

(F) Then, it would have been easily arrived at by a person skilled in the art to manufacture the "generally commercially available metallic bolt" of the Invention of Evidence A No. 1 of the above (A) as the one that is manufactured by the manufacturing method of first subjecting this bolt to the threading process and then applying the hot dip galvanized coating thereon as described in Evidence A No. 2 and to adopt a bolt having a coating thickness such as "a predetermined coating thickness of 5 to 150 μm " in view of the threaded engagement property that the bolt is required to have and thus to result in the configuration according to the Different Feature 1 of the Invention 1.

B. With regard to the Different Feature 2

In the above section A, when an attention is focused on the aspect of manufacturing, it can be recognized to be a method of manufacturing a metallic bolt (which corresponds to the "metallic free-access floor component member" of the Invention 1) to manufacture the "generally commercially available metallic bolt" of the Invention of Evidence A No. 1 as the one that is manufactured by the manufacturing method of first subjecting this bolt to the threading process and then applying the hot dip galvanized coating thereon as described in Evidence A No. 2.

As such, it would also have been easily arrived at by a person skilled in the art to result in the configuration according to the Different Feature 2 of the Invention 1 in the course of manufacturing the "generally commercially available metallic bolt" of the Invention of Evidence A No. 1 as the one that is manufactured by the manufacturing method of first subjecting this bolt to the threading process and then applying the hot dip galvanized coating thereon as described in Evidence A No. 2.

C. Examination of the allegations 2 (1) to (8) of the demandee

It is noted that the allegations by the demandee can be summarized as follows: there is no description of defining the upper limit of the coating thickness of the hot dip galvanized coating for the purposes of simultaneously ensuring the corrosion resistance and the optimization of the relationship of threaded engagement, and there is no suggestion about the upper limit of the coating thickness, so that it would not have been easily arrived at by a person skilled in the art to specify the value of 150 μm as the

upper limit value of the coating thickness of the hot dip galvanized coating.

However, as stated in the above section A (D), it pertains to common general technical knowledge to apply galvanization coatings for the purposes of simultaneously ensuring the corrosion resistance and the optimization of the relationship of threaded engagement. In the context of application of hot dip galvanization, it is obvious that the galvanization coating thickness needs to be adjusted so that the threaded engagement between a bolt and a nut is not negatively affected.

Also, as stated in the above section A (E), it is understandable and reasonable that the upper limit of the galvanizing coating thickness is to be adjusted such that the threaded engagement is not negatively affected.

As such, it is mere the exercise of ordinary creativity, which a person skilled in the art is generally expected to have, to specify the coating thickness of the hot dip galvanized coating so that it falls within the range between the value necessary for rust prevention and the value that does not cause trouble to the threaded engagement when subjecting a bolt to hot dip galvanization, and it is not beyond the extent to which it can be designed as appropriate by a person skilled in the art to specify the upper limit value of the coating thickness of the hot dip galvanized coating in accordance with the threaded engagement properties such as the thickness of the bolt, the depth of the thread groove, etc.

Therefore, the allegation by the demandee is not reasonable.

D. Comprehensive Judgment

The working effects of the Invention 1 fall within the range that a person skilled in the art would have predicted from the Invention of Evidence A No. 1, the technical matters described in Evidence A No. 2, and relevant well-known matters.

Hence, the Invention 1 would have been easily arrived at by a person skilled in the art on the basis of the Invention of Evidence A No. 1, the technical matters described in Evidence A No. 2, and the relevant well-known matters.

(3) Summary

Therefore, the Invention 1 is not patentable under the provision of Article 29(2) of the Patent Act, and the Patent of the Invention 1 should be invalidated.

2 Regarding the Invention 2

(1) Comparison

The Invention 2 is compared with the Invention of Evidence A No. 1.

Since the supporting device of the raised floor of the Invention of Evidence A No. 1 is constituted by the supporting unit body 3, the "generally commercially available metallic bolt used as the supporting unit body 3" of the Invention of Evidence A No. 1 corresponds to the "metallic free-access floor component member" of the Invention 2.

Also, as the Invention 2 includes all the matters specifying the Invention 1, the Invention 2 and the Invention of Evidence A No. 1 correspond to each other in the following feature.

(Corresponding feature)

"Metallic free-access floor component member"

Meanwhile, they differ from each other in the Different Feature 1, the Different Feature 2, which are stated in the above 1(2), and the following feature.

(The different feature 3)

With regard to the metallic free-access floor component member, the Invention 2 has a configuration in of being "hot dip galvanized by the method of manufacturing a free-access floor component member according to claim 1," and Invention of Evidence A No. 1 differs from the Invention 2 in that it is directed to generally commercially available metallic bolt and does not include such a limitation.

(2) Judgment of the different feature

A. With regard to the Different Feature 1 and the Different Feature 2

With regard to the Different Feature 1 and the Different Feature 2, these differences would have been easily made by a person skilled in the art as examined in the above section 1 (2) A and B.

B. With regard to the Different Feature 3

As examined in the above section 1 (2), the method for manufacturing a free-access floor component member according to claim 1 would have been easily arrived at by a person skilled in the art on the basis of the Invention of Evidence A No. 1, the technical matters described in Evidence A No. 2, and the relevant well-known matters.

As such, the configuration of the Different Feature 3 of being "hot dip

galvanized by the method of manufacturing a free-access floor component member according to claim 1" would also have been easily arrived at in the same or similar manner as stated in the above section 1 (2) by a person skilled in the art on the basis of the Invention of Evidence A No. 1, the technical matters described in Evidence A No. 2, and the relevant well-known matters.

C Summary

Therefore, the Invention 2 is not patentable under the provision of Article 29(2) of the Patent Act, and the Patent of the Invention 2 should be invalidated.

No. 6 Conclusion

As described in the foregoing, since the inventions according to claims 1 and 2 of the Patent would have been easily made by a person skilled in the art prior to filing of the patent application on the basis of the invention described in Evidence A No. 1, the technical matters described in Evidence A No. 2, and the relevant well-known matters and thus are not patentable under the provision of Article 29(2) of the Patent Act, the Patent of the case falls under Article 123(1)(ii) of the same Act and therefore the Patent of the case should be invalidated.

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

September 18, 2015

Chief administrative judge:	AKAGI, Keiji
Administrative judge:	SUMIDA, Hidehiro
Administrative judge:	ONO, Chuetsu