Date	May 14, 2018	Court	Intellectual Property High Court, Fourth Division
Case Number	2017 (Gyo-Ke) 10087		
- A case in which, when a difference between the Invention and the primarily cited invention is to be found, since it is reasonable to find the difference between them as a collective structure as a unit from a viewpoint of a solution to the technical problem of the invention, selection of a pigment and selection of an ink should be examined as separate differences in the invention and thus, it is reasonable to determine that a combination of the pigments is a collective difference.			

References: Article 29, paragraph(2) of the Patent Act

Number of related rights, etc.: Patent No. 5717955, Invalidation Trial No. 2016-800014

Summary of the Judgment

A request for a trial for invalidation of the patent was filed for the patent according to the invention titled "CONSTRUCTIONAL BOARD," and the JPO decision determined that the invention according to claims 1 and 2 could have been easily made by a person ordinarily skilled in the art on the basis of the cited invention and the well-known art, and the JPO decision was given that the patent for these inventions shall be invalidated. In this case, the patentee claimed rescission of the aforementioned JPO decision, and the plaintiff alleged wrong determination relating to inventive steps of the Inventions 1 and 2 (wrong finding of differences and wrong determination) as grounds for rescission.

The judgment found the differences between Invention 1 and the cited invention as summarized below and dismissed the plaintiff's claim that to have the structure of Invention 1 according to each of the differences in the cited invention could have been easily conceived of by the person ordinarily skilled in the art.

(1) Whether the inventive step of the invention is found or not is determined by finding the Invention on the basis of the scope of claims and subsequently, by comparing it with the primarily cited invention and by finding common features and differences, and if there is a difference, whether the Invention corresponding to the difference could have been easily conceived of by a person ordinarily skilled in the art is determined on the basis of the state of the art at filing. In such determination on the inventive step, the primarily cited invention to be compared with the Invention should be a specific technical idea which should be the base for determination on whether the Invention could have been easily made by a person ordinarily skilled in the art on the basis of the state of the art at the filing. Moreover, there is a secondarily cited invention corresponding to the difference between the Invention and the primarily

cited invention, and in order to determine whether the Invention could have been easily conceived of by applying the secondarily cited invention to the primarily cited invention, whether there is a motive to lead to the Invention by applying the secondarily cited invention to the primarily cited invention is determined by comprehensively considering suggestions in the contents of the primarily cited invention or the secondarily cited invention, relevance of the technical field, commonality of the problems, actions/functions, and the like, and also by considering presence of factors hindering the application, presence of unexpected prominent effects, and the like.

Then, when a difference between the Invention and the primarily cited invention is to be found, it is reasonable to find the difference between them as a collective structure as a unit from a viewpoint of a solution to the technical problem of the invention To find the differences by particularly finely segmenting them and to determine whether each of the differences could have been easily conceived of without considering the above viewpoint are inappropriate, since the invention for which the inventive step should have been found could not be properly determined and the inventive step could be denied as a result.

(2) The problem of Invention 1 is to provide a constructional board which can realize a suitable discoloration. Additionally the description that Invention 1 can solve the aforementioned problem is made in comparison between the example according to Invention 1 and the comparative example in the specification, and although the selection of the pigment is found to contribute to the solution to the problem of the Invention from the comparison between the example and the comparative example, use of the ultraviolet curable ink is not found to contribute to the solution to the aforementioned problem. Moreover, the technical meaning of the use of the ultraviolet curable ink as the solution to the problem of the Invention 1 is not described even in the other descriptions in the specification.

Thus, in Invention 1, the technical meanings of the combination of the pigments and the use of the ultraviolet curable ink are not identical. Moreover, since the pigment constituting the ink does not have to be selected in accordance with the type of the ink in general, the combination of the pigments and the use of the ultraviolet curable ink cannot be considered to be the collective structure from the viewpoint of solution to the technical problem of the invention, and the selection of the pigment and the selection of the ink should be naturally examined as separate differences.

(3) In solving the problem of the Invention of realizing a suitable discoloration, the decoloration of the pigments in each color needs to be of substantially the same degree,

and the combination of the pigments has an important technical meaning as the solution to the problem of the Invention. Therefore, in Invention 1, it is reasonable to determine the combination of the pigments as a collective difference from the viewpoint of the solution to the technical problem of the invention.

Judgment rendered on May 14, 2018
2017 (Gyo-Ke) 10087 The case of seeking rescission of JPO decision
Date of conclusion of oral argument: April 4, 2018

Judgment

Plaintiff: SEIREN CO., LTD.
Defendant: DAI NIPPON TORYO CO., LTD.

Main text

1. The Plaintiff's claim is dismissed.
2. The court costs shall be borne by the Plaintiff.

Facts and reasons

No. 1 Claim

In connection with a trial decision where JPO has been made on March 22, 2017 with regard to the case of Invalidation Trial No. 2016-800014, a part corresponding to Claims 1 and 2 of Japanese Patent No. 5717955 shall be rescinded.

No. 2 Outline of the case

1 History of the procedures, etc. in JPO

(1) Plaintiff filed a patent application titled "CONSTRUCTIONAL BOARD" on August 26, 2009, and registered a patent on March 27, 2015 (Patent No. 5717955). (Number of claims: 3. Exhibit Ko 1. Hereinafter this patent is referred to as "the Patent".)

(2) Defendant requested a demand for patent invalidation with respect to an invention according to the Patent on February 3, 2016, which was assigned to the JPO as a case of Invalidation Trial No. 2016-800014.

(3) Plaintiff requested for correction including the deletion of Claim 3 with respect to the scope of claims of the Patent on December 26, 2016. (Exhibit Ko 70, Ko 71. Hereinafter referred to as "Correction.")

(4) JPO affirmed the correction on March 22, 2017, and made a decision as per the attached attachment (copy) to the effect that the patents for the inventions according to Claims 1 and 2 should be invalidated (hereinafter referred to as "trial decision") and its certified copies were served to Plaintiff on March 30.

(5) Plaintiff filed a suit to seek for the rescission of the part of the trial decision directed to Claims 1 and 2 of the Patent on April 27, 2017.

2 The statement of the Claims

The statement of Claims 1 and 2 of the scope of the claims of the Patent after the Correction is set forth as below (Exhibit Ko 70, Ko 71). The symbol "↵" indicates a part of carriage return in the original text (the same shall apply hereinafter). Hereinafter, the inventions according to Claims 1 and 2 after the Correction are referred to as "the invention 1," etc., and in some cases, are collectively referred to as "each of the Inventions." Further, the specification of the Patent (Exhibit Ko 1) is referred to as "the specification" including the drawings.

[Claim 1] A constructional board patterned with a yellow dot of an ink including a yellow pigment, a magenta dot of an ink including a magenta pigment, and a cyan dot of an ink including a cyan pigment to form an ink jet layer, on a surface of which a transparent coating layer is formed,↵ wherein said yellow pigment is C.I. Pigment Yellow 42 or C.I. Pigment Yellow 184, said magenta pigment is C.I. Pigment Red 101, and said cyan pigment is C.I. Pigment Blue 28↵ wherein the ink including said yellow pigment of C.I. Pigment Yellow 42 or C.I. Pigment Yellow 184, and the ink including said magenta pigment of C.I. Pigment Red 101 and the ink including said cyan pigment of C.I. Pigment Blue 28 are all UV-curable inks,↵ wherein said constructional board is further patterned with a black dot of a UV-curable ink including black pigment, and said black pigment is C.I. Pigment Black 7,↵ wherein with respect to a color difference (ΔE*ab) in a CIE1976L*a*b*color space before and after color change or degradation caused by an accelerated weather proof test under the following super-accelerated weather proof test condition in compliance with JTMG01:2000 of constructional board patterned with said yellow dot, said magenta dot, said cyan dot, and said black dot, a color difference (ΔE*ab) before and after the color change or degradation caused by an accelerated weather proof test for a test period of 600 hours between each color of yellow component, magenta component, and cyan component is within 0.99, and a color difference (ΔE*ab) before and after the color change or degradation caused by an accelerated weather proof test for a test period of 600 hours between each color of yellow component, magenta component and cyan component and black component is within 1.44.

<Super accelerated weather proof test condition>↵Light source: water cooling metal halide lamp↵ Luminance: 90 mW/cm^2↵ Wavelength: 295 to 450 nm↵ Temperature: 60°C (irradiation), 30°C (bedewing)↵ Humidity: 50% (irradiation), 90% (bedewing)↵ Cycle: Irradiate for five hours, Bedewing for five hours↵ Shower: Ten seconds before and after bedewing

[Claim 2] The constructional board of Claim 1 used for exterior material of architecture.

3 Abstract of reasons of trial decision

(1) The reason for trial decision is as per the attached written trial decision (copy). In summary, each of the Inventions was easily conceivable by a person skilled in the art on the basis of an invention described in the following cited reference (hereinafter referred to as "cited invention") and well-known techniques:

Cited reference: Japanese Unexamined Patent Application Publication No. 2008-63831 (Exhibit Ko 2)

(2) Comparison between each of the Inventions and the Cited Invention

The Trial Decision found the cited invention as well as the common points and the differences between the cited invention and each of the Inventions as set forth below:

A Cited invention

A decorative constructional board to be used for the use in tile and external wall material, the plate being formed by laying on a surface of a substrate an undercoat layer, an ink-receiving layer, an ink jet layer, a clear layer, an inorganic coat layer, and a photocatalyst coat layer in this order, the ink jet layer being formed with a desired pattern by use of four-color aqueous ink free of organic pigments, and the aqueous ink consisting of a yellow aqueous ink including a yellow ferric oxide pigment, a cyan aqueous ink including a Co-Al-based blue pigment, a magenta aqueous ink including a red ferric oxide pigment, and a black aqueous ink including Cu-Fe-Mn-based black or Co-Fe-Cr-based black pigment.

B Common points and Differences between Invention 1 and the cited invention

(A) Common points

A constructional board patterned with a yellow dot of an ink including a yellow pigment, a magenta dot of an ink including a magenta pigment, and a cyan dot of an ink including a cyan pigment, wherein a transparent coat layer is formed on a surface of an ink jet layer formed by these inks,↵ wherein said cyan pigment is C.I. Pigment Blue 28, ↵ wherein said constructional board is patterned with a black dot of an ink including a black pigment.

(B) Difference 1

Regarding yellow pigment and magenta pigment, Invention 1 includes a yellow pigment of C.I. Pigment Yellow 42 or C.I. Pigment Yellow 184, and a magenta pigment of C.I. Pigment Red 101, whereas the cited invention includes a yellow pigment of yellow ferric oxide pigment and a magenta pigment of red ferric oxide pigment.

(C) Difference 2

Regarding black pigments, Invention 1 uses C.I. Pigment Black 7, whereas the cited invention uses Cu- Fe -Mn-based black or Co-Fe-Cr-based black pigment.

(D) Difference 3

Regarding ink, inks of Invention 1 are all UV-curable inks, whereas inks of the cited invention are aqueous inks.

(E) Difference 4

Regarding weather-proof properties of constructional board, with respect to a color difference (ΔE*ab) in a CIE1976L*a*b*color space before and after the color change or degradation caused by an accelerated weather proof test in a following weather proof test condition in compliance with JTMG01:2000, Invention 1 specifies a color difference (ΔE*ab) before and after color change or degradation caused by an accelerated weather proof test for a test period of 600 hours between each color of yellow component, magenta component and cyan component as being within 0.99, and a color difference (ΔE*ab) before and after color change or degradation caused by an accelerated weather proof test for a test period of 600 hours between each color of yellow component, magenta component, cyan component and black component as being within 1.44, whereas the cited invention does not specify such.

<Super accelerated weather proof test condition>↵ Light source: water cooling metal halide lamp↵ Luminance: 90 mW/cm^2↵ Wavelength: 295 to 450 nm↵ Temperature: 60°C (irradiation), 30°C (bedewing)↵ Humidity: 50% (irradiation), 90% (bedewing)↵ Cycle: Irradiate for five hours, bedewing for five hours↵ Shower: Ten seconds before and after bedewing

C Common points and Differences between Invention 2 and the cited invention

(A) Common points

Besides the aforesaid item B(A), a constructional board can be used for exterior material of architecture.

(B) Differences

The same as Differences 1 to 4.

4 Reason for rescission

(1)Error in the determination of the inventive step of Invention 1 (Reason 1 for rescission)

(2)Error in the determination of the inventive step of Invention 2 (Reason 2 for rescission)

(omitted)

No. 4 Court decision

1 Each of the Inventions

The statement of the Claims of each of the Inventions is as per the aforesaid No. 2, item 2. According to the description of the specification, the feature of each of the Inventions is set forth as below: Further, the specification describes Drawings and Tables as per the attached [Figure 1] and [Table 1] to [Table 7] of the list of Drawings and Tables of the specification.

(1) Technical Field

Each of the Inventions relates to a constructional board. ([0001])

(2) Problem to be solved by the invention

A constructional board is disposed, e.g. outside, and weather-proofing is required for a long period (five to ten years). For example, it is required that the appearance of the constructional board be maintained almost without any change or degradation in color even if it is exposed to heat, light (sunlight), and water (rain) for ten years. It is not easy to satisfy such requirement. It might possibly cause the color change or degradation. The goal of each of the Inventions is to provide a constructional board that can preferably realize the color change or degradation. ([0006] [0007])

(3) Means for solving problem

The goal of each of the Inventions is the aforesaid item (2), and each of the Inventions is adopted. ([0009] to [0012][0018][0020][0045])

(4) Detailed description of the preferred embodiments

A A constructional board according to each of the Inventions has an ink jet layer, and the ink jet layer is made of UV-curable ink including specific pigments in four colors of yellow, magenta, cyan, and black. UV-curable ink comprises a reactive oligomer, a reactive monomer, a photopolymerization initiator, and a pigment as a coloring agent. It is cured by irradiating ultraviolet light after the completion of patterning. On a surface of cured ink jet layer there is formed a transparent coat layer for the purpose of improving weather-proof property. ([0017] to [0020] [Figure 1])

B Regarding the UV-curable inks according to Examples 1 and 2 of each of the Inventions, pigments in four colors are all inorganic pigments. ([0025][Table 1])

C In Example 1, the color difference (ΔE*ab) between colors after 600 hours corresponding to the state exposed outside for ten years is 1.99 for yellow, 1.27 for magenta, 1.13 for cyan, and 0.68 for black. The difference in the color difference (ΔE*ab) for each color is 1.31 at the maximum, which is maintained almost within the same range. ([0042][0043][Table 6]). Note that the color difference (ΔE*ab) is

recognized to be empirically almost within the same range if it falls within around 5. ([0029])

D In Example 2, the color difference (ΔE*ab) between colors after 600 hours from the start of test was 2.12 for yellow, 1.27 for magenta, and 1.13 for cyan. The difference in the color difference (ΔE*ab) for each color is 1.44 at the maximum, which is maintained almost within the same range. ([0045][0046][Table 7])

E UV-curable ink according to Comparative Examples 1 to 4 changed to any one color of yellow, magenta, and cyan from the pigments of Example 1. Comparative Examples 1 to 4 underwent significant color degradation for only a pigment different from Example 1 with respect to the color difference before and after the color change or degradation. ([0025][0031][0034][0037][0040][Table 1] to [Table 5])

(5) Effect of the Inventions

Each of the Inventions allows us to prevent significant color degradation in a specific color component even after 600 hours from the start of accelerated weather-proof test corresponding to a state of being exposed outside for ten years with almost the same color difference for each component of yellow, magenta, cyan and black for the color difference before and after color change or degradation of the constructional board. ([0013] [0050])

2 Cited invention

(1) Cited reference (Exhibit Ko 2) generally discloses the following point with respect to the cited invention. Further, cited reference describes Drawings and Tables as per the attached [Figure 1] and [Table 1] of the list of Drawings and Tables of the cited reference in the Attachment.

A The scope of claims

[Claim 1] A decorative constructional board to be formed by laying on a surface of a substrate an undercoat layer, an ink-receiving layer, an ink jet layer, a clear layer, an inorganic coat layer, and a photocatalyst coat layer in this order, the ink jet layer being formed by use of three-color ink without organic pigments, the ink consisting of a yellow ink including a pigment selected from a yellow ferric oxide pigment, Ti-Ni-Ba-based yellow, Ti-Sb-Ni-based yellow, Ti-Nb-Ni-based yellow, and Ti-Sb-Cr-based yellow, a cyan ink including a pigment selected from a Co-Al-based blue and a Co-Al-Cr-based blue ink, and a magenta ink including a pigment selected from a red ferric oxide pigment, Fe-Zn-based brown, Fe-Zn-Cr-based brown, and Fe-Ni-Al-based brown.

[Claim 2] The decorative constructional board of Claim 1, in which an ink jet

layer is formed by use of 4-color ink without organic pigments, the ink further including a black ink including a pigment selected from black ferric oxide, Cu-Cr-based black, Cu-Cr-Mn-based black, Cu- Fe-Mn-based black, Co-Fe-Cr-based black, and carbon black.

B Detailed Description of the Invention

(A) Technical Field

The present invention relates to a decorative constructional board with a desired pattern by ink jet printing. ([0001])

(B) Problem to be solved by the invention

A conventional decorative constructional board has a problem of color fade-out in an early stage even if an ink jet layer is formed by use of organic pigments in vivid color. On the other hand, when the ink jet layer is formed by use of only inorganic pigments with high weatherproof properties, vividness of color is significantly reduced. Further, when an organic pigment and an inorganic pigment (in particular oxide-based inorganic pigment) are mixed for use, the inorganic pigment acts as an optical semiconductor, and the organic pigment deteriorates. Therefore, the objective of the present invention is to provide a decorative constructional board that exhibits high resistance to color degradation. The present invention adopts pigments of Spec 13 and Spec 14, both of which are free of organic pigments, as a pigment of ink for the formation of ink jet layer in the constitution of the cited invention. ([0004] [0005] [Table 1] [Table 2])

(C) Best mode for carrying out the invention

Decorative constructional boards according to the cited invention were subjected to curing for one week and a surface of each decorative constructional board was exposed to UV irradiation for 1000 hours by a sunshine weatherometer (SWOM), and the observation of the surface of each decorative constructional board by sight did not reveal total color degradation. ([0049][0050][Table 2])

Note that black may be expressed by three-color inks of yellow, cyan, and magenta, but it is preferable to add a prescribed black ink and form a four-color ink in order to express vivid black and save material cost. For the prescribed black ink, it is preferable to use pigments selected from black ferric oxide, Cu-Cr-based black, Cu-Cr-Mn-based black, Cu-Fe-Mn-based black, Co-Fe-Cr-based black, and carbon black. ([0018])

(2) According to the description of the aforesaid item (1), the cited reference describes the cited invention as per the aforesaid No. 2, 3(2)A. In this respect, there is no dispute between the parties.

3 Reason 1 for rescission (Error in the determination of the inventive step of Invention 1)

(1) Finding of Common Points and Differences

A Plaintiff argues that the cited invention should be compared with (1) one embodiment of the combination of UV-curable ink and pigments in four colors or (2) one embodiment of the combination of at least pigments in four colors in the determination of the inventive step of Invention 1.

B Finding of Differences

The inventive step requirement is established by finding an invention on the basis of the scope of the claims, comparing the invention with a primarily cited invention, finding a common feature and a difference, and determining whether a person skilled in the art could have easily conceived of the invention corresponding to the difference, if any, on the basis of the state of the art as of the filing. In such determination on the inventive step, a primarily cited invention to be compared with the Invention should be a specific technical idea which should be a basis for the determination of whether a person skilled in the art could have easily conceived of the invention on the basis of the state of the art as of the filing. Moreover, there is a secondarily cited invention corresponding to the difference between the Invention and the primarily cited invention, and in order to determine whether the Invention could have been easily conceived of by applying the secondarily cited invention to the primarily cited invention, whether there is a motive to lead to the Invention by applying the secondarily cited invention to the primarily cited invention is determined by comprehensively considering suggestions in the contents of the primarily cited invention or the secondarily cited invention, relevance of the technical field, commonality of the problems, actions/functions, and the like, and also by considering presence of factors hindering the application, presence of unexpected prominent effects, and the like.

Then, when a difference between the Invention and the primarily cited invention is to be found, it is reasonable to find the difference between them as a collective structure as a unit from a viewpoint of a solution to the technical problem of the invention. To find the differences by particularly finely segmenting them and to determine whether each of the differences could have been easily conceived of without considering the above viewpoint are inappropriate, since the invention for which the inventive step should have been found could not be properly determined and the inventive step could be denied as a result.

C Plaintiff's argument (1)

As discussed in the aforesaid item 1(2), the problem to be solved by Invention 1 is to provide a constructional board that can realize preferable change or degradation in color. Further, it is illustrated by the comparison between Examples according to Invention 1 and Comparative Examples that Invention 1 may solve the above problem. As is discussed in the aforesaid item 1(4), the substantial difference between Examples and Comparative Examples is pigment (specifically, any one of three-color pigments of cyan, yellow, and magenta excluding black pigment). Regarding the use of an UV-curable ink, things do not change in any of Examples and Comparative Examples.

Therefore, it is recognized from the comparison between Examples and Comparative Examples that the selection of pigments contributes to the solution of the problem to be solved by Invention 1; however, it is not recognized that the use of UV-curable ink contributes to the solution of the above problem (the ones where the effects of solving the problem are at least demonstrated). Further, when it comes to the other description of the specification, it only describes a well-known constitution, stating that UV-curable ink "comprises a reactive oligomer, a reactive monomer, a photopolymerization initiator, and a pigment as a coloring agent." ([0018]) (Exhibits Ko 8, Ko 10, and Ko 11). It fails to describe the technical significance to use a UV-curable ink as a means for solving the problem of Invention 1.

Therefore, it cannot be said that the combination of pigments and the use of UV-curable ink have the same technical significance in Invention 1. Further, in general, pigment constituent of ink should be selected according to the kind of ink (UV-curable ink, aqueous ink etc.) (Exhibits Ko 6, Ko 8, Ko 9, Ko 11, and Ko 48). The combination of pigments and the use of UV-curable ink are seen as a block from the viewpoint of the solution to technical problem to be solved by the invention.

As seen above, the selection of pigments and the selection of ink should be considered as different matters.

D Plaintiff's argument (2)

In solving the problem to be solved by the Invention to realize preferable color change or degradation, it is necessary to achieve similar levels of color degradation for pigments of each color. Therefore, it can be said that the selection of individual pigments (combination of pigments) has a significant technical significance as a means for solving the problem to be solved by the Invention.

Therefore, it is reasonable to determine a combination of pigments as a difference from a viewpoint of a solution to the technical problem of Invention 1.

E Summary

Therefore, the difference between Invention 1 and the cited invention is

recognized that "Regarding ink, Invention 1 uses a combination of 4-color pigments of C.I. Pigment Yellow 42 or C.I. Pigment Yellow 184 for yellow pigment, C.I. Pigment Red 101 for magenta pigment, C.I. Pigment Blue 28 for blue pigment, and C.I. Pigment Black 7 for black pigment, whereas the cited invention uses a combination of 4-color pigments of yellow ferric oxide for yellow pigment, red ferric oxide for magenta pigment, Co-Al-based blue for blue pigment, and Cu-Fe-Mn-based black or Co-Fe-Cr-based black for black pigment." in addition to Differences 3 and 4; i.e., Difference B.

(2) Determination of Difference

A Difference B

(A) In the cited invention, a combination of pigments in four colors of yellow ferric oxide, red ferric oxide, Co-Al-based blue, and Cu-Fe-Mn-based black or Co-Fe-Cr-based black is used for yellow pigment, magenta pigment, blue pigment, and black pigment, respectively.

Among them, the pigments of "yellow ferric oxide" and "red ferric oxide" are used in the sense of synthesized yellow ferric oxide (C.I. Pigment Yellow 42) and synthesized red ferric oxide (C.I. Pigment Red 101) (Exhibits Ko 5, Ko 19, and Ko 20). The same can apply to the technical field according to a paint for architectural building (Exhibit Ko 4). Further, (1) it is frequently required to purify color materials and remove impurities for the use in ink jet (Exhibit Ko 23), (2) Synthesized ferric oxide is more excellent than natural oxides in terms of purity, uniformity of particle size, and particle size distribution (Exhibit Ko 22), and (3) synthesized products are produced in a large amount at low cost, and currently synthesized products are mainstream (Exhibit Ko 21). In view of these facts, it is highly likely that synthesized products are used as pigments of ink for ink jet used for industrial products. Further, the cited invention uses "yellow ferric oxide" and "red ferric oxide" as pigments for the ink jet layer for the formation of architecture decorative plate, and the decorative plate for architecture is obviously an industrial product. Consequently, a person skilled in the art would construe "yellow ferric oxide" and "red ferric oxide" of the cited invention as synthesized products; i.e., "C.I. Pigment Yellow 42" and "C.I. Pigment Red 101" in accordance with the above usual sense.

Further, "Co-Al-based blue pigment" is the same as "C.I. Pigment Blue 28" (no dispute between the parties).

Furthermore, the cited reference discloses that carbon black is preferably used as well as Cu-Fe-Mn-based black and Co-Fe-Cr-based black of the cited invention for black ink used for the invention of the cited reference ([0018]). Further, as discussed

in the aforesaid item 2(1)B, the cited invention has an objective to provide a decorative constructional board that achieves high resistance to color degradation. It was well-known that carbon black is most commonly used and has superior resistance to color degradation (Exhibits Ko 47 to Ko 49). In addition, it is recognized that the carbon black of the cited reference is identical to "C.I. Pigment Black 7" of Invention 1 (Exhibits Ko 48 to Ko 52).

Consequently, it can be said that the combination of pigments in four colors of yellow ferric oxide, red ferric oxide, Co-Al-based blue, and carbon black is a combination sufficiently assumed in the cited reference. Therefore, it can be said that there is a sufficient motivation for a person skilled in the art to replace pigments in four colors of yellow ferric oxide, red ferric oxide, Co-Al-based blue, and Cu-Fe-Mn-based black or Co-Fe-Cr-based black used for yellow pigment, magenta pigment, blue pigment, and black pigment in the cited invention with pigments in four colors of C.I. Pigment Yellow 42, C.I. Pigment Red 101, C.I. Pigment Blue 28, and C.I. Pigment Black 7.

As seen above, it can be said that a person skilled in the art could have easily conceived of replacing pigments in four colors in the cited invention with C.I. Pigment Yellow 42, C.I. Pigment Red 101, C.I. Pigment Blue 28, and C.I. Pigment Black 7 to achieve the constitution of Invention 1 according to Difference B.

(B) Further, even if a person skilled in the art could construe "yellow ferric oxide" and "red ferric oxide" of the cited invention as including not only synthesized products but also natural products, a person skilled in the art would use as necessary a preferable synthesized product as a pigment for ink jet use. Therefore, as in the case of the aforesaid item (A), a person skilled in the art could have easily conceived of replacing pigments in four colors in the cited invention with C.I. Pigment Yellow 42, C.I. Pigment Red 101, C.I. Pigment Blue 28, and C.I. Pigment Black 7 to achieve the constitution of Invention 1 according to Difference B.

(C) Plaintiff's argument

a Plaintiff argues that "yellow ferric oxide" and "red ferric oxide" are used in the sense of including natural products, and it cannot be said that they are likely to mean the one of a narrow sense (synthesized product). Such argument is not acceptable, however, as discussed in the aforesaid item (A).

b Plaintiff argues that it was not necessary in the cited invention to express black with three colors of yellow, cyan, and magenta and that the goal of expressing vivid black and saving material cost has been achieved, and thus there is no motivation to daringly change the kind of black pigment.

It should be noted, however, that the above goal of Plaintiff's argument is achieved by using a black pigment, not achieved only by using "Cu-Fe-Mn-based black or Co-Fe-Cr-based black pigment" of the cited invention. Thus the use of carbon black, which is similarly a black pigment in the cited invention, is not at all negated.

c Plaintiff argues that it was recognized that a combination of pigments is important from the viewpoint of weather proof property, and thus a person skilled in the art would conceive that desired resistance to color degradation might not be obtained if one should modify the combination of pigments in four colors for which the effects were demonstrated, and thus there is no reason to modify the kind of black pigments with carbon black in the cited invention.

Each spec described in the cited reference is only described as one embodiment of the invention recited in the claims of the cited reference. Thus a person skilled in the art would never consider the combination of pigments of the cited invention (Specs 13 and 14) as unmodifiable. Further, as discussed in the aforesaid item (A), there is a sufficient motivation for a person skilled in the art to replace pigments in four colors of the cited invention with C.I. Pigment Yellow 42, C.I. Pigment Red 101, C.I. Pigment Blue 28, and C.I. Pigment Black 7. Further, in view of the fact that carbon black is well-known to have excellent resistance to color degradation, there was no reasonable reason for a person skilled in the art to conceive that the above modification would not cause desired resistance to color degradation.

B Difference 3

(A) As of the filing of the Patent, both aqueous ink and UV-curable ink were well-known as an ink for ink jet (Exhibit Ko 8 to Ko 11). In the field of architectural material, as of the filing of the Patent, both aqueous ink and UV-curable ink were known to be selectively usable as an ink for ink jet consisting of inorganic pigments (Exhibits Ko 6 and Ko 7). It can be said that a person skilled in the art could select as necessary which is used for ink for ink jet in the field of architectural materials, aqueous ink or UV-curable ink. Further, it was known that UV-curable ink had various merits of not requiring an ink-receiving layer, excellent adhesiveness with a substrate, and excellent weather-proof properties (Exhibits Ko 6 and Ko 7).

Consequently, as discussed in the aforesaid item 2(1)B, the cited invention has an objective to provide a decorative constructional board that achieves high resistance to color degradation. It can thus be said that there is a motivation to adopt a well-known UV-curable ink, which can be selectively used with an aqueous ink and serve for the solution of the problem to be solved by the cited invention due to the excellent

weather proof properties.

Therefore, a person skilled in the art could have easily conceived of replacing an aqueous ink of the cited invention with a well-known UV-curable ink to arrive at the constitution of Invention 1 according to Difference 3.

(B) Plaintiff's argument

a Plaintiff argues that the cited reference only describes the use of aqueous ink as a kind of ink, and an ink-receiving layer is an essential constitution together with aqueous ink in Claim 1, and thus the cited invention has a technical significance to adopt aqueous ink and an ink-receiving layer. Plaintiff further argues that the cited reference lacks description that may become a motivation to save an ink-receiving layer and modify aqueous ink with UV-curable ink, and all of the technical contents disclosed in the cited reference should be reconsidered if UV-curable ink is adopted, but a person skilled in the art would not at all conceive of such modification.

As discussed in the aforesaid item 2(1), however, the objective of the cited invention is to provide a decorative constructional board that exhibits high resistance to color degradation. The cited invention has a technical significance in adopting specific inorganic pigments free of organic pigments, for a pigment of ink for the formation of ink jet layer. It cannot be recognized that the adoption of aqueous ink and ink-receiving layer is not essential for solving the problem to be solved by the cited invention. In addition, the cited reference describes an ink-receiving layer in Claim 1, but also discloses that the ink-receiving layer allows us to provide more vivid pattern as is similar to the conventional architectural decorative plate ([0034]), which suggests that the key to the sustainability of such a vivid pattern for a long period of time is to select specific inorganic pigments free of organic pigments. Thus it is hard to find from the statement of the ink-receiving layer in Claim 1 of the cited reference that the ink-receiving layer and the aqueous ink are essential constitution in the cited invention. Therefore, the Plaintiff's argument based on such supposition is not acceptable.

b Plaintiff argues that metals such Co, Mn, Cu, and Fe have poor compatibility to organic materials (Exhibit Ko 55), and Cu-Fe-Mn-based black and Co-Fe-Cr-based black are used for black pigments of aqueous ink of the cited invention, and thus there is a disincentive to adopt an UV-curable ink that definitely includes a larger amount of organic materials compared to aqueous inks in the cited invention, and Plaintiff's experiments (Exhibit Ko 56) practically demonstrate the difficulty of producing an UV-curable ink including Cu-Fe-Mn-based black.

Exhibit Ko 55 is directed, however, to "the assessment of deterioration and the

analytical method of synthetic resins (rubbers and plastics)." Plaintiff merely pointed out "impact factors of metals onto rubbers and plastics for individual elements," stating that "rubbers and plastics have many chances to contact with metals and metal compounds when used in a molding process and molded articles," which technical field is far from that of the cited invention. Rather, in the field of ink for ink jet according to the cited invention, it is not recognized that metals such as Co, Fe, and Cu are not used as UV-curable ink (Exhibit Ko 6, Ko 7, and Otsu 3), but it is also known that the addition of polymerization inhibitor may control the reaction between metal and resin (Exhibits Ko 6 and Ko 7). Furthermore, the Plaintiff's experiments left pigment-dispersing liquid including a high level of pigments (25 weight%) for a long period of time (for four days) without the use of polymerization inhibitors. It is not inferred from the experiments in such a special condition that it is generally difficult to produce an UV-curable ink including Cu-Fe-Mn-based black. Accordingly, the Plaintiff's argument is not acceptable.

C Difference 4

(A) The technical significance of the constitution of Invention 1 regarding Difference 4

It cannot be recognized that the adoption of "an accelerated weather proof test under the following super-accelerated weather proof test condition in compliance with JTMG01:2000" according to Difference 4 (hereinafter referred to as "the weather proof test") has any particular technical significance in view of the fact that JTMG01:2000 is a publicly-known standard of Japan Testing Machinery Association and its test condition has no particularly difference from commonly-used weather proof tests (Exhibit Ko 35).

Further, it cannot be inferred from the specification that, regarding the color difference before and after a test time of 600 hours of the weather proof test, the upper limit values of "1.44" and "0.99" of the color difference (ΔE^*ab) after the color change or degradation have more than technical significance of falling within almost the same range in view of the description of the specification that (1) "The color difference between each color component falls within almost a same range (The applicant empirically found it preferable to fall within a range of almost 5)." ([0029]) and (2) whether or not to fall within almost the same range is assessed by whether the difference between each color of the color difference "falls within 5" or "exceeds 5" ([0029] to [0048]).

Therefore, it is recognized that the technical significance of the constitution of the Invention 1 according to Difference 4 is that the color difference between each

color component in the state of being exposed outside for ten years may fall within almost the same range.

(B) As to whether one could have easily conceived of Difference 4

It was well-known as of the filing of the Patent that almost ten-year durability was required in the field of exterior building material, and the weather proof properties were required at such a level that exhibited almost no color degradation even after outside exposure for five to ten years (Exhibits Ko 6, Ko 7, Ko 17, Ko 18). Further, it is a well-known problem to retain a color phase of coat in paints for uses including architecture, and it is obvious that a color phase is retained as a whole if improved resistance to color degradation leads to the prevention of the color degradation (Exhibits Ko 3 and Ko 32).

Therefore, it is naturally conceivable in view of well-known techniques to implement the weather proof test with a goal of ten-year durability in the cited invention with a purpose of improving the resistance to color degradation. In this case, color phase is retained automatically if color degradation of each color is improved. It is thus recognized that the color difference between each color component in a state of being exposed outside for ten years may fall within almost the same range. Further, a person skilled in the art could merely assess the degree of color degradation as necessary with color difference (ΔE*ab) (Exhibits Ko 17, Ko 18, Ko 25-5, Ko 28, Ko 33, Ko 34, Ko 37, Ko 39).

Further, the color difference between each pigments before and after a test period of 600 hours of the weather-proof test in the specification is 1.99 for C.I. Pigment Yellow 42, 1.27 for C.I. Pigment Red 101, 1.13 for C.I. Pigment Blue 28, and 0.68 for C.I. Pigment Black 7 as well as Examples and Comparative Examples. Invention 1 fails to specify the other constituent elements that could possibly have an impact on the color difference such as a thickness of a transparent coated layer and a particle size of pigment, and the specification makes no particular mention of this point. In view of these facts, the difference (ΔE*ab) in color difference between three colors or four colors after color change or degradation of Invention 1 according to Difference 4 is automatically determined if the pigments of Invention 1 are selected, or otherwise may be determined as necessary by a person skilled in the art if a thickness of coated layer or a particle size of pigment is adjusted.

Therefore, the matter for specifying the invention of Invention 1 according to Difference 4 was easily conceivable by a person skilled in the art in the cited invention.

D The effect of Invention 1

As is discussed in the aforesaid item 1(5), Invention 1 allows us to prevent

significant color degradation in a specific color component even after 600 hours from the start of the weather-proof test corresponding to a state of being exposed outside for ten years, and to provide a constructional board that can realize a desirable color change or degradation. It is recognized that a similar level of color change and degradation may be achieved by applying a well-known technique to the cited invention. Thus the effects of Invention 1 are merely predictable by a person skilled in the art from the description of the cited reference.

E Summary

As seen above, a person skilled in the art could have easily conceived of difference B, difference 3, and difference 4 and Invention 1 was easily conceivable by a person skilled in the art on the basis of cited invention and well-known techniques. Therefore, none of the reason 1 for rescission is reasonable.

4 Reason 2 for rescission (Error in the determination of inventive step of Invention 2)

Invention 2 depends from Invention 1 and further confines the scope so as to use a "constructional board" as an "exterior material of architecture." Further, "decorative constructional board" "used for the use in tiles and external wall materials" corresponds to "constructional board" "used for exterior material of architecture" of Invention 2. In this regard, there is no dispute between the parties. Therefore, Invention 2 and the cited invention are different from each other in difference B, difference 3, and difference 4, whereas they are identical in the remaining points.

Accordingly, Invention 2 was easily conceivable by a person skilled in the art on the basis of the cited invention and well-known techniques as in the case of Invention 1, and thus the reason 2 for rescission is groundless.

5 Conclusion

As is discussed above, the Plaintiff's requests are groundless and thus shall be dismissed, and the court sentences as in the formal adjudication.

Intellectual Property High Court, Fourth Division

Presiding Judge TAKABE Makiko

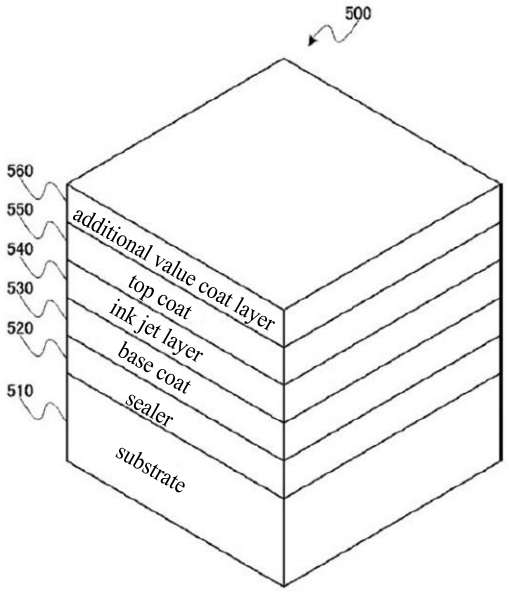
Judge YAMAKADO Masaru

Judge SEKINE Sumiko

Attachment

Specification, List of Drawings, and Tables

[Figure 1]



[Table 1]

	Yellow	Magenta	Cyan	Black
Example 1	Ferric oxide (C.I. Pigment Yellow 42)	Ferric oxide (C.I. Pigment Red 101)	Cobalt blue (C.I. Pigment Blue 28)	Carbon (C.I. Pigment Black 7)
Example 2	Bismuth vanadate (C.I. Pigment Yellow 184)	Ferric oxide (C.I. Pigment Red 101)	Cobalt blue (C.I. Pigment Blue 28)	Carbon (C.I. Pigment Black 7)
Reference Example 1	Azo nickel complex (C.I. Pigment Yellow 150)	Perylene (C.I. Pigment Red 179)	Copper phthalocyanine (C.I. Pigment Blue 15:4)	-
Comparative Example 1	Azo nickel complex (C.I. Pigment Yellow 150)	Ferric oxide (C.I. Pigment Red 101)	Cobalt blue (C.I. Pigment Blue 28)	Carbon (C.I. Pigment Black 7)
Comparative Example 2	Ferric oxide (C.I. Pigment Yellow 42)	Perylene (C.I. Pigment Red 179)	Cobalt blue (C.I. Pigment Blue 28)	Carbon (C.I. Pigment Black 7)
Comparative	Ferric oxide	Ferric oxide	Copper	Carbon (C.I.

Example 3	(C.I. Pigment Yellow 42)	(C.I. Pigment Red 101)	phthalocyanine (C.I. Pigment Blue 15:4)	Pigment Black 7)
Comparative Example 4	Ferric oxide (C.I. Pigment Yellow 42)	Ferric oxide (C.I. Pigment Red 101)	Prussian blue (C.I. Pigment Blue 27)	Carbon (C.I. Pigment Black 7)

Attachment

[Table 2]

Comparative Example 1	120 hours	240 hours	360 hours	480 hours	600 hours
Yellow	1.89	4.21	6.43	10.70	15.33
Magenta	1.20	1.50	1.23	1.08	1.27
Cyan	0.39	0.50	0.98	1.09	1.13
Black	0.58	0.49	0.58	0.66	0.68

[Table 3]

Comparative Example 2	120 hours	240 hours	360 hours	480 hours	600 hours
Yellow	0.77	1.14	1.40	1.90	1.99
Magenta	2.33	5.35	7.61	11.98	16.66
Cyan	0.39	0.50	0.98	1.09	1.13
Black	0.58	0.49	0.58	0.66	0.68

[Table 4]

Comparative Example 3	120 hours	240 hours	360 hours	480 hours	600 hours
Yellow	0.77	1.14	1.40	1.90	1.99
Magenta	1.20	1.50	1.23	1.08	1.27
Cyan	3.80	5.83	8.61	14.04	19.87
Black	0.58	0.49	0.58	0.66	0.68

[Table 5]

Comparative Example 4	120 hours	240 hours	360 hours	480 hours	600 hours
Yellow	0.77	1.14	1.40	1.90	1.99
Magenta	1.20	1.50	1.23	1.08	1.27
Cyan	3.45	7.31	10.55	12.19	15.44
Black	0.58	0.49	0.58	0.66	0.68

[Table 6]

Example 1	120 hours	240 hours	360 hours	480 hours	600 hours
Yellow	0.77	1.14	1.40	1.90	1.99

Magenta	1.20	1.50	1.23	1.08	1.27
Cyan	0.39	0.50	0.98	1.09	1.13
Black	0.58	0.49	0.58	0.66	0.68

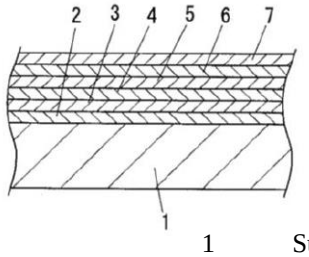
[Table 7]

Example 2	120 hours	240 hours	360 hours	480 hours	600 hours
Yellow	0.17	0.64	1.01	1.72	2.12
Magenta	1.20	1.50	1.23	1.08	1.27
Cyan	0.39	0.50	0.98	1.09	1.13
Black	0.58	0.49	0.58	0.66	0.68

Attachment

Cited Reference, List of Drawings, and Tables

[Figure 1]



1	Substrate
2	Undercoat layer
3	Ink-receiving layer
4	Ink jet layer
5	Clear layer
6	Inorganic coat layer
7	Photocatalyst coat layer

[Table 1]

Spec 1 Undercoat layer (1)

Resin type	Acryl emulsion sealer
Coating method	Roll coater
Dried amount of coating	40 g/m^2
Sintering condition	250°C/20 minutes

Spec 2 Ink-receiving layer

Resin type	Acryl emulsion
PWC	50 weight%
Dried film thickness	30 μm
Coating method	Spraying
Sintering condition	130°C/2 minutes

Spec 3 Ink jet layer (ink)

C	Co-Al-based blue
M	Red ferric oxide
Y	Yellow ferric oxide
Ejection amount	27 pl

Spec 4 Clear layer

Resin type	Acryl emulsion
NV	50 weight%
Dried film thickness	20 μm
Coating method	Spraying
Sintering condition	130°C/2 minutes

Spec 5 Inorganic coat layer

Resin type	Polyorganosiloxane
Dried film thickness	10 μm
Coating method	Spraying
Sintering condition	130°C/2 minutes

Spec 6 Photocatalyst coat layer

Resin type	Polyorganosiloxane
Titanium oxide	50 weight%
Dried amount of coating	3 g/m^2
Coating method	Spraying
Sintering condition	130°C/2 minutes

Spec 7 Ink jet layer (ink)

C	Co-Al-Cr-based blue
M	Fe-Zn-Cr-based brown
Y	Ti-Ni-Ba-based yellow
K	Black ferric oxide
Ejection amount	27 pl

Spec 8 Ink jet layer (ink)

C	Co-Al-based blue
M	Fe-Zn-based brown
Y	Ti-Sb-Ni-based yellow
K	Carbon Black
Ejection amount	27 pl

Spec 9 Undercoat layer (2)

Resin type	Urethane-modified epoxy resin
Dried film thickness	15 μm
Coating method	Spraying
Sintering condition	150°C/20 minutes

Spec 10 Undercoat layer (3)

Resin type	Acryl emulsion enamel paint
PWC	40 weight%
Dried film thickness	30 μm
Coating method	Roll coater
Sintering condition	130°C/2 minutes

Spec 11 Ink jet layer (ink)

C	Co-Al-based blue
M	Fe-Ni-Al-based brown
Y	Ti-Nb-Ni-based yellow
K	Cu-Cr-based black
Ejection amount	27 pl

Spec 12 Ink jet layer (ink)

C	Co-Al-based blue
M	Red ferric oxide
Y	Ti-Sb-Cr-based yellow
K	Cu-Cr-Mn-based black
Ejection amount	27 pl

Spec 13 Ink jet layer (ink)

C	Co-Al-based blue
M	Red ferric oxide
Y	Yellow ferric oxide
K	Cu-Fe-Mn-based black
Ejection amount	27 pl

Spec 14 Ink jet layer (ink)

C	Co-Al-based blue
M	Red ferric oxide
Y	Yellow ferric oxide
K	Co-Fe-Cr-based black
Ejection amount	27 pl

Spec 15 Ink jet layer (ink)

C	Phthalocyanine
M	Red ferric oxide
Y	Isoindolinon
K	Carbon Black
Ejection amount	27 pl

Spec 16 Ink jet layer (ink)

C	Phthalocyanine
M	DPP
Y	Yellow ferric oxide
K	Carbon Black
Ejection amount	27 pl

DPP: Diketo Pyrrolo Pyrrole-based pigment

PWC: Pigment Weight Concentration

NV: Solid content