

Decided on	June 24, 2008	Court	Intellectual Property High Court, First Division
Case number	2007 (Gyo-Ke) 10369		
A case, with respect to a JPO trial decision, which was cancelled on the grounds that a subject invention consisting of and relevant to the mental activities of human beings is essentially intended to provide a technical means for assisting the mental activities of human beings, and, as such, constitutes a “creation of technical ideas utilizing the laws of nature”			

(References) Article 2, paragraph (1) and the introductory clause for Article 29, paragraph (1) of the Patent Act

In this case, a Japan Patent Office (JPO) examiner decided to reject a patent application for an invention titled “an interactive network for dental treatment” (hereinafter, the “Invention”) and the JPO issued a trial decision to reject a request for a trial appealing the examiner’s decision. The plaintiff then sought cancellation of the trial decision.

A major issue was whether or not the Invention constitutes an “invention” referred to in the introductory clause for Article 29, paragraph (1) of the Patent Act.

The court decision stated that “the Invention may not be considered to constitute an ‘invention’ prescribed in Article 2, paragraph (1) of the Patent Act, even if a technical means of some kind is presented in the Claims for the Invention, when the essence of the Invention is directed at mental activities themselves, as a result of an analysis of the entire contents of said Claims, that “said Invention, on the other hand, does not constitute an ‘invention’ described above, even if it includes acts attributable to human mental activities or it is relevant to such mental activities, when the essence thereof supports such mental activities or offers a technical means that replaces said activities,” and that, “therefore, the Invention may not be viewed as one that should be excluded from the scope of patent.” The court decision then noted as follows: “A ‘means for judging required dental repairs’ and a ‘means for formulating an early-stage treatment plan that includes criteria for designing preparations for prosthetic materials used in the aforementioned dental repairs’ prescribed in Claim 1 include factors realized through human acts. Mental activities, such as judgment and assessment, are assumed to be necessary for implementing Invention 1. However, it is difficult to say that Invention 1 is directed at mental activities themselves, in light of the object of the invention and the detailed description thereof stated in the specifications thereof. Rather, Invention 1 may be, on the whole, understood as a provider of a technical means for assisting in dental

treatment supplied with a ‘network server with a database,’ a ‘communications network,’ a ‘computer installed in a dental treatment room’ and an ‘apparatus that enables image display and processing’ whose operations are based on the computer.” The court concluded “Invention 1 may be considered to constitute the ‘creation of technical ideas utilizing the laws of nature’ and, accordingly, the trial decision that said Invention falls outside an ‘invention’ defined in Article 2, paragraph (1) of the Patent Act is unacceptable.” On the above grounds, the court cancelled the trial decision rejecting the appeal request.

Judgment rendered on June 24, 2008

2007 (Gyo-ke) 10369, Case of Seeking Rescission of a JPO Decision

Date of conclusion of oral argument: June 5, 2008

Judgment

Plaintiff: Shade Analyzing Technologies, Inc.

Counsel patent attorney: HAMADA Haruo

Defendant: The Commissioner of the Japan Patent Office

Defendant's designated representatives: TAGA Minoru

Same as above: TAGUCHI Hideo

Main text

1. The court rescinds the JPO decision rendered on June 19, 2007, in relation to the case for the trial against the examiner's decision of refusal No. 2005-7446.
2. The court costs shall be borne by the defendant.

Facts and Reasons

No. 1 Claims

Same as indicated in the main text.

No. 2 Background

The plaintiff, a U.S. juridical person, filed the request for a trial against the examiner's decision of refusal in relation to its patent application for the invention titled "interactive dental treatment network" filed with the Japan Patent Office ("JPO"); however, the JPO dismissed said request. The plaintiff instituted this action to seek rescission of said JPO decision.

The issues disputed in this court case are as follows: [i] whether the amendment to the scope of claims is admissible; and [ii] whether each of the Inventions falls under an "invention" within the meaning defined in the first sentence of Article 29, paragraph (1) of the Patent Act.

1. Developments in the proceedings before the JPO

On October 4, 1999, the plaintiff filed the PCT international application for the invention titled "interactive dental treatment network" (PCT/US99/22857; Patent Application No. 2000-579144), claiming the priority rights based on the three U.S. patent applications dated November 3 and November 19, 1998 and February 18, 1999 (Exhibit Ko No. 11; the Japanese translation of the PCT international application was publicized on September 3, 2002 as PCT Domestic Publication (*Tokuhyo*) No. 2002-528832)). The plaintiff submitted the Japanese translation of said patent application with the JPO on July 3, 2000 (Exhibit Ko No. 1); however, the examiner's decision of refusal for said patent application was issued on January 21, 2005 (Exhibit Ko No. 5). The plaintiff filed the request for a trial against the examiner's decision of refusal (Exhibit Ko No. 6).

The JPO examined this request as a case for a trial against the examiner's decision of refusal No. 2005-7446. In the course of the trial proceedings, on May 26, 2005, the plaintiff made an amendment to the scope of claims (hereinafter referred to as the "Amendment"; Exhibits Ko No. 7 and No. 8); however, on June 19, 2007, the JPO dismissed the Amendment and rendered the decision to dismiss the trial. The certified copy of the trial decision was served upon the plaintiff on June 29, 2007.

The plaintiff was granted an additional period of ninety days for the institution of an action against this JPO decision.

2. The scope of claims before the Amendment

The scope of claims before the Amendment (i.e. the scope of claims as amended by the written amendment dated December 28, 2004 (Exhibit Ko No. 4)) was as follows.

[Claim 1] A computer-based dental treatment system comprising:

- a network server with a database that stores information on materials, procedures and preparations concerning dental prostheses;
- a communication network providing access to said network server;
- one or more computers for accessing information stored in the database and displaying said information in a human-readable format, located at least at a dental office;
- a means to identify dental restoration needs;
- a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration;
- wherein said communication network transmits the preliminary treatment plan to

the dental laboratory;

- and wherein said communication network transmits a final treatment plan, including modifications to the preliminary treatment plan as may be necessary, to the dental office

[Claim 2] The dental treatment system of Claim 1, wherein the preliminary treatment plan, and the design criterion including the digital image preparations for the dental treatment needs are created in the dental office

[Claim 3] The dental treatment system of Claim 2, which further comprises the evaluation of the preliminary treatment plan at the dental laboratory before transmitting the final treatment plan to the dental office

[Claim 4] The dental treatment system of Claim 3, which further comprises the transmission of interim preparation information to the dental laboratory, for the implementation of the final treatment plan and monitoring including verification prior to the implementation of the final treatment plan

[Claim 5] The dental treatment system of Claim 3, wherein the step of the transmission and evaluation of the plan are implemented via the communication network

[Claim 6] The dental treatment system of Claim 5, which further comprises the creation of a dental prosthesis satisfying the design criterion for the final treatment plan and placing such dental prosthesis in a patient

[Claim 7] The dental treatment system of Claim 6, which further comprises the verification that the dental prosthesis is created according to the final treatment plan prior to placing it in a patient

[Claim 8] The dental treatment system of Claim 6, wherein the design criterion or one of its modifications includes a proposed decay excavation, tooth preparation or dental prosthesis color

[Claim 9] The dental treatment system of Claim 6, wherein the digital image representation includes real images and reference images, and the modification includes the correlation of a color selection for the prosthesis to match the real images

[Claim 10] The dental treatment system of Claim 4, wherein the design criterion includes a tooth preparation and a proposed decay excavation, and which further comprises the communication, from the dental laboratory, a verification of the acceptability or modification of one or more proposed design criteria

[Claim 11] The dental treatment system of any one of Claims 1 to 10, wherein the computer(s) are located at the dental office, and the communication network is the

Internet

[Claim 12] The dental treatment system of any one of Claims 1 to 11, wherein information stored in the database includes the preparation diagrams, reduction dimensions, margin design and burs for specific dental prostheses

[Claim 13] The dental treatment system of any one of Claims 1 to 11, wherein the database further includes information concerning one or more patients having dental treatment needs

[Claim 14] The dental treatment system of any one of Claims 1 to 11, wherein the network server further comprises application programs enabling users to query the database regarding specific materials or procedures concerning dental prostheses for verification, demonstration or evaluation of the same

[Claim 15] The dental treatment system of Claim 14, wherein at least one computer located at the dental office receives from the database the answers to said queries, and further comprising at least one printer located at the dental office to print said answers for bringing them out for reference

[Claim 16] The dental treatment system of any one of Claims 1 to 15, which further comprises one computer at the dental laboratory, wherein said at least one computer has an access to said server and said one or more computers located in the dental office via the communication network

[Claim 17] The dental treatment system of any one of Claims 1 to 16, further comprising a digital camera for taking digital images of a patient's teeth necessary for the dental treatment, and a communication link for transmitting the digital images to one or more computers at the dental office

[Claim 18] The dental treatment system of Claims 17, wherein one or more computers at the dental office stores the digital images of a patient's teeth necessary for the dental treatment, and wherein the communication network forwards the digital images to the database for storage therein

3. The scope of claims after the Amendment

The scope of claims after the Amendment is as follows (Exhibit Ko No. 7).

[Claim 1] A computer-based dental treatment system comprising:

- a network server with a database that stores information on materials, procedures and preparations concerning dental prostheses;
- a communication network providing access to said network server;
- one or more computers connected to the network in an operable manner for accessing information stored in the database via the communication network and for

displaying said information in a human-readable format, comprising of at least one computer located in the dental office and at least one additional computer located in the dental laboratory;

- a preliminary treatment method information, including a design criterion for the preparation of a dental prosthesis for said dental restorations corresponding to a patient's teeth treatment information and digital images corresponding to a patient's teeth restoration information, which is created by the computer located in the dental office, or by the computer in the dental laboratory where at least the digital images of the preliminary treatment method information are placed for the purpose of seeking comments, wherein the digital images can be accessed simultaneously by both computers in the dental office and the dental laboratory via the communication network; and

- a final treatment method information, including the digital images of the preliminary treatment method information amended, enhanced or verified based on the amendment, enhancement or verification, wherein the digital images are transmittable to the dental office computer via the communication network

[Claim 2] The dental treatment system of Claim 1, wherein the computers located in the dental office and the dental laboratory can simultaneously access the digital images of the final treatment method information on their display monitors, and wherein the communication network includes the Internet

[Claim 3] The dental treatment system of Claim 1, wherein the images include digital information on a patient's tooth color and the preliminary treatment method information includes the determination of at least one matching shade of material for the dental treatment, and the dental laboratory either verifies the dental office's determination of restoration material shade or suggests an alternative shade

[Claim 4] The dental treatment system of Claim 3, wherein the database includes the electronically stored color information showing multiple tooth shades on the dental office computer, and also includes the means to compare the stored color information of the tooth shades with the color information of the images to identify one or more tooth shades having a single or combined color that corresponds to a patient's tooth shade and sending said identified color to the dental laboratory

[Claim 5] The system of Claim 4, wherein an image of a patient's tooth is automatically compared to the tooth shade color information stored electronically in the computer, and wherein an image of a patient's tooth is electronically displayed with color pixels to assist in determining the color of the patient's tooth shade

[Claim 6] The system of Claim 5, wherein a patient's tooth shade is determined by

selecting one or more pixels of the image, determining which pixels correspond to differential spatial locations of the patient's tooth that provide similar color information, and electronically comparing that color information with the stored tooth shade color information to determine the color of that portion of the patient's tooth, and wherein the selection of such pixel(s) is repeated until a tooth shade color is determined for all spatial locations of the image of the patient's tooth, with the patient's tooth shade being determined by averaging the color information at selected pixel locations of the image before electronically comparing the averaged color information with the stored tooth shade color information

[Claim 7] The system of Claim 4, which further comprises the installation of a digital camera to obtain an image of a patient's tooth and to obtain the color information of the tooth shades before electronically storing the color information

[Claim 8] The system of Claim 1, which includes the identification of a dental prosthesis, wherein one of the design criteria includes proposed decay excavation, tooth preparation or prosthesis color, and wherein at least one computer reviews step-by-step procedures including an interactive website to determine an appropriate restorative procedure and to obtain feedback for any specific dental needs for a patient's tooth, and these restorative procedures include the design criterion of the final treatment method information, tooth preparation information, tools to carry out the preparation or information sources where tools or materials for use in the restoration may be obtained

[Claim 9] The dental treatment system of Claim 1, wherein the dental office computer stores digital images of a patient's teeth necessary for the dental treatment and the communication network forwards the digital images to the database for storage therein, and the treatment method information and the digital images are transmitted by e-mail

[Claim 10] A computer-readable medium constituting one or more programs for carrying out a method for treatment of a patient's tooth which comprises: generating an electronic image of the patient's tooth; providing preliminary treatment method information for addressing the dental needs of the patient; and forwarding the electronic image and preliminary treatment method information to the dental laboratory so that a dental technician can evaluate the image and treatment method information and in a manner such that the dental technician and dentist can review and discuss the preliminary treatment method information

[Claim 11] The computer-readable medium of Claim 10, wherein a dental technician and a dentist can simultaneously access digital images by the use of one or more

programs

[Claim 12] The computer-readable medium of Claim 10, which further comprises the database storing information on materials procedures and preparation of dental restoration prostheses, enabling users to query the database regarding specific materials and procedures concerning dental restoration prostheses for verification, cross-check, modification or evaluation of the same by the use of the program

4. Contents of the JPO decision

The details of the JPO decision are described in the attached JPO decision.

The reasons for this decision are summarized as follows: [i] the Amendment was not for the purpose of the restriction of the scope of claims, the deletion of a claim or claims, the correction of errors, or the clarification of an ambiguous statement, and therefore should be dismissed as it violates the provision of Article 17-2, paragraph (4) of the Patent Act before the revision by Act No. 55 of 2006 (hereinafter referred to as "Former Article 17-2, paragraph (4)"); [ii] each of the Inventions before the Amendment (hereinafter collectively referred to as the "Inventions") does not fall under an "invention" within the meaning defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature, and therefore is not patentable pursuant to the first sentence of Article 29, paragraph (1) of the same Act.

No.3 Grounds for seeking rescission of the JPO decision as alleged by the plaintiff

1. Ground for seeking rescission (1) (incorrect dismissal of the amendment)

(1) Claim 1

A. The JPO's findings in relation to the Amendment are as follows. [i] The amendment to Claim 1 deleting the terms "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan," which are the matters necessary to define the invention of the "dental treatment system" before the amendment, is apparently not for the purpose of restricting the matters necessary to define the invention stated in a claim or claims. Therefore, this amendment is not considered as an amendment for the purpose of the restriction of the scope of claims. Further, such amendment is apparently not considered as an amendment for the purposes of the deletion of a claim or claims, the correction of errors, or the clarification of an ambiguous statement, either. [ii] The amendment to Claims 10 to 12 can be substantially considered as the change of the invention from the "dental treatment system" to the

"computer-readable medium," or the addition of the "computer-readable medium" to the invention of the "dental treatment system." In either case, such amendment is apparently not for the purpose of the restriction of matters necessary to define the invention stated in a claim or claims, and therefore is not considered as an amendment for the purpose of the restriction of the scope of claims. In addition, the amendment is also apparently not for the purpose of the deletion of a claim or claims, the correction of errors, or the clarification of an ambiguous statement. [iii] As such, the Amendment cannot be considered as an amendment for the restriction of the scope of claims, the deletion of a claim or claims, the correction of errors, or the clarification of an ambiguous statement.

- B. However, in the background of the Amendment, the plaintiff received the examiner's decision of refusal of the patent application, on the grounds of the statements of Claim 1 of the Inventions which reads "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan" being abstract and too broad in terms of the scope of statement, and lacking the technical means. In response to this decision of refusal, the plaintiff made the Amendment to delete the phrases "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan" of Claim 1, as judged by the examiner to be abstract and too broad, and to further clarify that machine equipment is used as the technical means utilizing the laws of nature. In this Amendment, the plaintiff amended Claim 1 to read "a preliminary treatment method information, including a design criterion for the preparation of a dental prosthesis for said dental restorations corresponding to a patient's teeth treatment information and digital images corresponding to a patient's teeth restoration information, which is created by the computer located in the dental office, or by the computer in the dental laboratory where at least the digital images of the preliminary treatment method information are placed for the purpose of seeking comments, wherein the digital images can be accessed simultaneously by both computers in the dental office and the dental laboratory via the communication network" and "a final treatment method information, including the digital images of the preliminary treatment method information amended, enhanced or verified based on the amendment, enhancement or verification, wherein the digital images are transmittable

to the dental office computer via the communication network." By this Amendment, the plaintiff attempted to make clear that the two means as mentioned above are to be implemented on the dental office computer and the dental laboratory computer, for the purpose of the creation of a preliminary treatment information and a final treatment method information.

(2) Claims 10 to 12

The amendment to Claims 10 to 12 is the statement of one of the structures of the invention, with the purpose to further emphasize clearly that the invention of "dental treatment system" of Claim 1 utilizes "a computer-readable medium comprising of one or more programs." Thus, this amendment is not the addition of any new feature to the elements of Claim 1, and is substantially the mere limited restriction to Claim 1.

- (3) As explained above, the Amendment represents the restriction of the scope of statement, with a purpose to delete the abstract statement and to further clarify the utilization of the specific mechanical means, so as to address the reason for refusal, in relation to Claim 1 as amended by the written amendment dated December 28, 2004, that the statement of the claimed invention is abstract and therefore does not constitute an "invention" within the meaning defined in the Patent Act. Thus, by said Amendment, the plaintiff only sought to make a limited restriction of the claim, not the change of the gist of invention or the expansion of the scope of the statement.

2. Ground for seeking rescission (2) (incorrect finding as to whether each of the Inventions satisfies the requirement of an "invention" within the meaning defined in the Patent Act)

On the assumption that the procedure for the Amendment is dismissed, the Inventions comprised of Claims 1 to 18 as disclosed in the patent description amended by the written amendment dated December 28, 2004 (each Claim shall be hereinafter simply referred to as "Claim 1," "Claim 2," etc., and each invention disclosed in Claims 1 to 10 of said patent description shall be hereinafter referred to as "Invention 1," "Invention 2," etc.).

(1) Invention 1

A. For Claim 1, the JPO rendered the following trial decision:

"It is a socially accepted idea that a dentist, during the course of his/her mental activities, identifies a patient's dental treatment needs or develops a preliminary treatment plan. Therefore, it is understood that 'a means to

identify dental restoration needs' and 'a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration' as referred to in Claim 1 are a dentist's activities themselves. For this reason, the 'means' as referred to in Claim 1 are understood as the dentist's activities to 'identify' a patient's dental needs and to 'develop' a dental treatment plan in the course of his/her mental activities.

"For the sake of assurance, in this respect, the panel of trial examiners discussed the statement of the patent description other than the claims, as well as the drawings. However, with regard to the phrases 'a means to identify dental restoration needs' and 'a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration,' no statement could be found which defines otherwise, for example, that these means do not represent a dentist's activities themselves, or that these acts are not based on a dentist's mental activities. The detailed explanation of the invention contained in the Description discloses as follows: 'Generally, the dentist prepares the preliminary treatment plan and the design requirements...'[0004] 'In the specific case, as the first step, a complicated examination and diagnosis of the patient's dental condition is performed by the dentist. This generally includes a basic periodontal examination, clinical examination, radiographs, screening for TMD, etc. The dentist also develops a treatment plan for addressing the dental needs of the patient....'[0011] '...The dentist and the dental technician assess the case together prior to accessing the interactive dental treatment network (the 'site')...' [0013] 'Suggestion' is the important word here, because it is the dentist who ultimately determines the treatment method to be used, not the dental technician or the site....' [0018] Thus, the detailed explanation of the invention discloses that it is a dentist who identifies a patient's dental treatment needs or develops a preliminary treatment plan; however, it does not specifically mention anything about either 'a means to identify' or 'a means to develop,' such as the adoption of a special structure."

"Claim 1 was amended from the invention of an 'interactive dental treatment network' to a 'computer-based dental treatment system.' Further, the expressions 'to identify' and 'to develop' were amended as 'a means to identify' and 'a means to develop,' respectively. As explained above, in

relation to the terms 'a means to identify' and 'a means to develop,' it can be understood that the term 'a means' was used to express the fact that these are the activities of a dentist in the course of his/her mental activities, as the matter to identify the invention. As such, even considering the totality of the inventions pertaining to Claim 1, this invention cannot be considered as a creation of technical ideas utilizing the laws of nature."

"Accordingly, it should be concluded that the invention pertaining to Claim 1 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature."

- B. However, the distinctive feature of Invention 1 is the system enabling the creation and implementation of a final treatment plan by developing and transmitting a preliminary treatment plan between a dental office and a dental laboratory via a network server, communication network and one or more computers. More concretely, as mentioned in Paragraph [0001] of Exhibit Ko No. 12, which is the description of Inventions re-translated based on its PCT international publication brochure, Invention 1 relates to an interactive, computer-based system and method to enable the dentist and the dental laboratory to analyze color images of one or more teeth and teeth preparation so that a denture teeth or denture teeth crown can be appropriately designed to precisely match the tooth that is to be replaced in certain clinical or cosmetic procedures. According to the dental terminology, the term "preparation" referred to in the patent description is correctly an "abutment tooth." This means a tooth made ready for attaching restoration materials by grinding and formulating a tooth crown or root (Exhibit Ko No. 13).
- C. As described in Paragraph [0002] of Exhibit Ko No. 12, Invention 1 relates to the assisting means enabling quick search and selection of materials best suited for individual dental restoration needs, so as to solve the problem of difficulty in selection of materials and methods for dental treatment, against the background of a significantly growing amount of such information in recent years. As described in Paragraph [0002] above, the system of Invention 1 is capable of achieving an effect of significant saving of the time and effort formerly required of dentists and dental technicians.
- D. Thus, there is a discrepancy in the JPO decision which interprets "a means to identify" and "a means to develop" as referred to in Claim 1 to mean "a

dentist's identifying and developing activities in the course of his/her mental activities," as this interpretation is completely opposite to the meaning of Claim 1. Considering the purpose of Invention 1, this invention aims to minimize the effort required of a dentist for selecting appropriate materials and methods based on his/her mental activities: a process which was extremely difficult in the past. Therefore, it is obvious that the system of this invention does not involve a dentist's mental activities as the means.

- E. In addition, in relation to the amendment of the wording of Claim 1 as initially filed which reads "to identify" and "to develop" to "a means to identify" and "a means to develop," the JPO's finding that "it can be understood that the term 'a means' was used to express the fact that these are the activities of a dentist in the course of his/her mental activities, as the matter to identify the invention" is merely an assumption based on a misunderstanding. The "means" as referred to in Claim 1 are "means" used for the purposes of 'identification' and 'development.' Therefore, notwithstanding that the activities "to identify" or "to develop" involve a dentist's activities, these "means" represent the means to assist a dentist in doing such activities.

Claim 1 is the invention of the dental restoration system, comprising of "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration" as the matters necessary to define the invention, and further comprising of "a network server having a database storing information on materials, procedures and preparations (abutment tooth) concerning dental prostheses," "a communication network" and "a computer located at a dental office" as the additional matters necessary to define the invention. Thus, Claim 1 clearly discloses that the constituent features of the dental restoration system, other than the above-mentioned two means, are all computer-based.

Further, in Claim 1, "a computer-based dental treatment system" is disclosed as the entire invention comprising of all constituent elements. It is also clear from the entirety of the statement of Claim 1 that the above-mentioned two means form the constituent elements of the computer-based system. Therefore, like other constituent elements, it is clear that "a means to identify" and "a means to develop" are also computer-based means, and are not the "means" as the activities based on a

dentist's mental activities.

- F. Therefore, the JPO's finding that "it should be concluded that the invention pertaining to Claim 1 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature" is incorrect.

(2) Inventions 2 to 10

- A. For Claims 2 to 10, the JPO rendered the following trial decision: "The invention pertaining to Claim 1 does not fall under a creation of technical ideas utilizing the laws of nature. Consequently, it should be concluded that each of the inventions of other claims, directly or indirectly citing Claim 1 without restricting the meaning of the words 'a means to identify' or 'a means to develop,' also does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature."

However, Invention 1 disclosed in Claim 1 which includes "a means to identify" and "a means to develop" is a creation of technical ideas utilizing the laws of nature. Further, each of Claims 2 to 10 citing Claim 1 directly or indirectly discloses the features further restricting the scope of Claim 1. Therefore, as is the case with Claim 1, each of Inventions 2 to 10 also falls under a creation of technical ideas utilizing the laws of nature.

Based on the above, the JPO's finding that each of Inventions 2 to 10 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature, is incorrect.

- B. In addition, the JPO rendered the following trial decision:

"The primal matters necessary to define the inventions of Claims 2, 3, 6 and 7 are as follows: 'wherein preliminary treatment plan, and the design criterion including the digital image preparations for the dental treatment needs are created in the dental office' (Claim 2), 'which further comprises the evaluation of the preliminary treatment plan at the dental laboratory before transmitting the final treatment plan to the dental office' (Claim 3), 'which further comprises the creation of a dental prosthesis satisfying the design criterion for the final treatment plan and placing such dental prosthesis in a patient' (Claim 6), and 'which further comprises the verification that the dental prosthesis is created according to the final treatment plan prior to placing it in a patient' (Claim 7). The subjects of

these activities are a dentist and a dental technician, and therefore all these activities are understood to represent a human being's mental activities themselves, or activities based on such activities.

"As such, it should be concluded that each of the inventions of Claims 2, 3, 6 and 7 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature."

However, as mentioned in (1) above, Invention 1 is the invention of a computer-based system for an interactive communication of images, identified and developed based on the program on the network server, via the communication network between the dental office computer and the dental laboratory computer. The features specified in Claims 2, 3, 6 and 7 are implemented in said system.

Therefore, the JPO's finding that each of Inventions 2, 3, 6 and 7 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature, is incorrect.

No. 4 Defendant's counterarguments

1. Ground for seeking rescission (1) (incorrect dismissal of the amendment)

(1) Claim 1

- A. The plaintiff alleges that "the plaintiff made the Amendment to delete the phrases "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan" of Claim 1 as judged by the examiner to be abstract and too broad in the decision of refusal, and to further clarify that machine equipment is used as the technical means utilizing the laws of nature. In this Amendment, the plaintiff amended Claim 1 to read "preliminary treatment method information" and "final treatment method information." By this Amendment, the plaintiff attempted to make clear that the two means as mentioned above are to be implemented on the dental office computer and the dental laboratory computer for the purpose of the creation of the preliminary treatment information and the final treatment method information."
- B. However, there is a conceptual difference between the terms "information" and "means," as "means" is a subject of the implementation of functions such as processing tasks, whereas "information" is an object of such processing task. Therefore, it is obvious that the terms "preliminary

treatment method information" and "final treatment method information" after the amendment are not the restrictions of any of the terms "a means to identify dental restoration needs" or "a means to develop a preliminary treatment plan" before the amendment.

In addition, as admitted by the plaintiff, the amendment to Claim 1 includes the deletion of the terms "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan" before the amendment. As these terms, "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan," are the matters necessary to define the invention of the "dental treatment system," an amendment deleting these terms would result in the expansion of the scope of claims, and therefore is not considered as the amendment for the purpose of the restriction of the matters necessary to define the invention.

Further, the plaintiff also alleges that it deleted the terms "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan" so as to clarify that these means are implemented on a dental office computer and a dental laboratory computer for the creation of a preliminary treatment information (precisely, the preliminary treatment "method" information) and final treatment method information.

However, Claim 1 after the Amendment does not specifically mention that the identification of dental restoration needs is to be implemented on a dental office computer and a dental laboratory computer. Therefore, the plaintiff's allegation that it deleted the term "a means to identify dental restoration needs" so as to clarify that these means are to be implemented on a dental office computer and a dental laboratory computer for the creation of a preliminary treatment method information and final treatment method information is groundless.

(2) Claims 10 to 12

The plaintiff alleges that "the amendment to Claims 10 to 12 is the statement of one of the structures of the invention, with the purpose to further emphasize clearly that the invention of "dental treatment system" of Claim 1 utilizes a computer-readable medium comprising of one or more programs."

However, none of Claims 10 to 12 cites Claim 1. In addition, the subject-matter of Claim 1 before the Amendment is the "dental treatment system"; whereas the subject-matter of Claims 10 to 12 after the

Amendment are the "computer-readable medium." Therefore, the subject-matter of these claims before and after the Amendment are completely different. Accordingly, the inventions of Claims 10 to 12 are not the more detailed specifications of the structure of the invention pertaining to Claim 1, and are completely different from the invention pertaining to Claim 1.

In addition, the plaintiff alleges that Claims 10 to 12 are substantially the mere limited restriction to Claim 1.

However, the "computer-readable medium" (the subject-matter of Claims 10 to 12) is clearly not the sub-group of the "dental treatment system" (the subject-matter of Claim 1 before the amendment). Therefore, Claims 10 to 12 after the amendment cannot be regarded as the substantially limited restriction to Claim 1 before the amendment.

Further, none of Claims 10 to 12 after the amendment contains a "network server," which was the matter necessary to define the invention pertaining to Claim 1 before the amendment. From this standpoint as well, it is clear that the amendment to Claims 10 to 12 is not for the purpose of the limited restriction to Claim 1 before the amendment.

2. Ground for seeking rescission (2) (incorrect finding as to whether each of the Inventions satisfy the requirement of an "invention" within the meaning defined in the Patent Act)

(1) Invention 1

A. The plaintiff alleges as follows:

"The invention for which the patent application was filed, when viewed as the entirety of the claims, is a 'creation of technical ideas utilizing the laws of nature.' Therefore, the invention satisfies the requirement prescribed in the first sentence of Article 29, paragraph (1) of the Patent Act."

"The terms 'a means to identify' and 'a means to develop' referred to in Claim 1 represent the activities implemented by a computer program. Therefore, these are the activities undertaken by machine equipment, and do not mean a human being's mental activities themselves. Accordingly, the invention, when viewed as a whole, falls under a 'creation of technical ideas utilizing the laws of nature.'"

"The plaintiff amended the matter necessary to define the invention from 'to ...,' which refers to a method, to 'means.' Considering the contents of the patent description, these activities are understood as the processes

performed by machine equipment, instead of a human being's mental activities. Therefore, the invention, when viewed as a whole, falls under a 'creation of technical ideas utilizing the laws of nature.'

"Also considering some matters necessary to define the invention, as well as the entirety of the statement of the claims, these activities are obviously incapable of being implemented by a human being's mental activities, and are understood as the processes to be implemented by machine equipment. Therefore, all constituent features of the invention fall under a 'creation of technical ideas utilizing the laws of nature.'"

- B. However, simple addition of a term "means" in lieu of the expression "to ...," which refers to a method, cannot automatically lead to the understanding that such processes are implemented by machine equipment, instead of a human being. The issue of whether "means A" is implemented by a human being or machine equipment should be understood in a substantive context, by first defining the term "A," and then considering such various factors as common general technical knowledge, socially accepted ideas, and whether "means A" is defined in the detailed explanation of the invention. The terms "to identify the dental restoration needs" and "to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration" merely describes the details of the dental treatment service, and do not contain any technical element to be understood as the processes implemented by machine equipment (i.e. computer). Therefore, it is not understood from the statement that these are the processes performed by machine equipment, instead of a human being's mental activities.

The JPO's finding that the terms "a means to identify" and "a means to develop" represent a human being's mental activities themselves was based on the consideration that "it is a socially accepted idea that a dentist, during the course of his/her mental activities, identifies a patient's dental treatment needs or develops a preliminary treatment plan" (Page 8, Line 35 to Page 9, Line 1) and "with regard to the phrases "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration," no statement could be found which defines otherwise, for example, that these means do not represent a dentist's activities themselves, or that these acts do not relate to a dentist's mental

activities." (Page 9, Lines 7 to Line 12) Therefore, the JPO's finding in this respect does not contain any error.

Meanwhile, the term "preparation" does not mean an "abutment tooth" as alleged by the plaintiff, but rather means "shaping." So, "a preparation of ○○" means the grinding and shaping of ○○ to make it ready for treatment (or ○○ after the grinding and shaping to make it ready for treatment). If the term "preparation" is used without the term "○○," it is understood as the omission of the term "of abutment tooth." Therefore, the plaintiff's allegation related to the "preparation" cannot be considered as the allegation based on the Description.

- C. In addition, the invention as defined by the plaintiff is based on the matters stated in the detailed explanation of the invention; however, the definition of the invention should be based on the statement of the claims, which represents the scope of claims, not on the matters stated in the detailed explanation of the invention.

Claim 1 only discloses "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration," and does not use any phrases such as "assisting means to be used for identifying" or "assisting means to be used for developing."

Therefore, the plaintiff's allegation that the terms "a means to identify" and "a means to develop" should be understood to mean the "assisting means to be used for identifying" or "assisting means to be used for developing" is groundless, as it is not based on the statement of the claims.

- D. There is no reason that "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan" should be understood as computers, merely on the ground that the other matters necessary to define the invention are all computer-based systems. In addition, the title "a computer-based dental treatment system" is not clear in term of the extent of the computer-based elements. Therefore, this title cannot be the evidence that "a means to identify" and "a means to develop" are computers. It follows from the plaintiff's logic that the process of "creation of dental prosthesis satisfying the design criterion for the final treatment plan and placing such dental prosthesis in a patient," which is the matter necessary to define the invention of Claim 6 (Exhibit Ko No. 4) is implemented by a computer instead of a human being. However, in light of the socially

accepted idea, these tasks are incapable of being implemented by a computer. Accordingly, the plaintiff's allegation in this respect is groundless.

Further, even also considering the relationship with the additional matters necessary to define the invention, as well as the entirety of the statement of the claims, it is not impossible to understand "a means to identify" and "a means to develop" as a dentist himself/herself.

Claim 1 discloses "a database storing information on materials, procedures and preparations concerning dental prostheses" and "one or more computers for accessing information stored in the database and displaying said information in a human-readable format, located at least at a dental office." However, Claim 1 does not mention that information obtained by accessing the database is input into "a means to identify dental restoration needs" or "a means to develop a preliminary treatment plan." Namely, Claim 1 only identifies "information on materials, procedures and preparations concerning dental prostheses" stored in the database as the information to be utilized by way of presentation to a human being.

In addition, "information on materials, procedures and preparations concerning dental prostheses" means information assisting the development of the preliminary treatment plan.

Based on the above, it is naturally understood that the "dental treatment system" identified based on the matters specified in Claim 1 comprises: a network server equipped with database storing "information on materials, procedures and preparations concerning dental prostheses"; a communication network; a computer located at the dental office; and a dentist who accesses database information by utilizing as his/her tool such computer and consults information obtained on the screen, and performs the function as "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan." Further, it is also understood that said system is the dental treatment mechanism, wherein the dentist transmits the preliminary treatment plan he/she developed to the dental laboratory via the communication network, and wherein the final treatment plan, including the amendment to the preliminary treatment plan, is transmitted to the dental office via the communication network. The "dental treatment system" as identified above is computer-based in the sense that it utilizes the database. Therefore, this system also falls under the

"computer-based dental treatment system."

In other words, even considering the connection to the matters necessary to define the invention other than "a means to identify" and "a means to develop," as well as the entirety of the statement of the claims, these means can be understood to be a means as a dentist's mental activities themselves.

- E. The identification of the invention should be based on the statement of the claims, not on the statement in the detailed explanation of the invention.

Therefore, even if the detailed explanation of the invention discloses the terms "assisting means to be used for identifying" or "assisting means to be used for developing," which have been implemented by a computer program, this does not necessarily lead to a conclusion that the subject that implements "a means to identify" and "a means to develop" referred to in the claims is a computer program, not a dentist.

In addition, the following statements are included in the detailed explanation of the invention: "Generally, the dentist prepares the preliminary treatment plan and the design requirements..." [0004], "In the specific case, as the first step, a complicated examination and diagnosis of the patient's dental condition is performed by the dentist. This generally includes a basic periodontal examination, clinical examination, radiographs, screening for TMD, etc. The dentist also develops a treatment plan for addressing the dental needs of the patient..." [00011], "...The dentist and the dental technician assess the case together prior to accessing the interactive dental treatment network (the "site")..." [0013], and "'Suggestion' is the important word here, because it is the dentist who ultimately determines the treatment method to be used, not the dental technician or the site..." [0018]. According to these statements, it is a dentist that identifies the patient's dental restoration needs or develops a preliminary treatment plan. Therefore, even taking into consideration the detailed explanation of the invention, "a means to identify" and "a means to develop" should be interpreted as a human being's mental activities themselves.

- F. Based on the above, the JPO's finding that the invention pertaining to Claim 1 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature, does not contain any error.

(2) Inventions 2 to 10

- A. The plaintiff alleges that "Invention 1 disclosed in Claim 1 which includes "a means to identify" and "a means to develop" is a creation of technical ideas utilizing the laws of nature. Further, each of Claims 2 to 10 citing Claim 1 directly or indirectly discloses the features further restricting the scope of Claim 1. Therefore, as is the case with Claim 1, each of Inventions 2 to 10 also falls under a creation of technical ideas utilizing the laws of nature."

The plaintiff's allegation as mentioned above postulates that the invention pertaining to Claim 1 is a creation of technical ideas utilizing the laws of nature; however, as explained above, all of the plaintiff's allegations in respect of the invention pertaining to Claim 1 are groundless, and the JPO's finding that "the invention pertaining to Claim 1 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature" does not contain any error. Therefore, the abovementioned plaintiff's allegation is groundless in terms of the postulate.

- B. Further, the plaintiff alleges that "Invention 1 is the invention of a computer-based system for an interactive communication of images, identified and developed based on the program on the network server, through the communication network between the dental office computer and the dental laboratory computer. The features specified in Claims 2, 3, 6 and 7 are implemented in said system."

However, Inventions 2, 3, 6 and 7 contain the following terms as the primal matters necessary to define the invention: "wherein the preliminary treatment plan, and the design criterion including the digital image preparations for the dental treatment needs are created in the dental office" [Claim 2], "which further comprises the evaluation of the preliminary treatment plan at the dental laboratory before transmitting the final treatment plan to the dental office" [Claim 3], "which further comprises the creation of a dental prosthesis satisfying the design criterion for the final treatment plan and placing such dental prosthesis in a patient" [Claim 6], and "which further comprises the verification that the dental prosthesis is created according to the final treatment plan prior to placing it in a patient" [Claim 7]. These statements merely describe the details of the dental treatment service, and do not contain any technical element to be understood as the processes implemented by machine equipment (i.e.

computer). In light of common general technical knowledge and socially accepted ideas, it should be concluded that the subjects of these activities are a dentist and a dental technician, and these activities represent a human being's mental activities themselves, or activities based on such activities.

As such, it should be concluded that each of Inventions 2, 3, 6 and 7 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature, as it involves a human being's mental activities themselves or activities based on such activities as the primal matters necessary to define the invention. Therefore, the JPO's finding in this respect does not contain any error.

No. 5 Court decision

1. Ground for seeking rescission (1) (incorrect dismissal of the amendment)

(1) Claim 1

- A. One of the amendments to Claim 1 was the amendment of the terms "a means to identify dental restoration needs" of the Claim 1 before the amendment to "a preliminary treatment method information, including a design criterion for the preparation of a dental prosthesis for said dental restorations corresponding to a patient's teeth treatment information and digital images corresponding to a patient's teeth restoration information, which is created by the computer located in the dental office, or by the computer in the dental laboratory where at least the digital images of the preliminary treatment method information are placed for the purpose of seeking comments, wherein the digital images can be accessed simultaneously by both computers in the dental office and the dental laboratory via the communication network."
- B. The above-mentioned amendment was the change of the terms "a means to identify dental restoration needs" before the amendment to "a preliminary treatment method information, including a design criterion for the preparation of a dental prosthesis for said dental restorations corresponding to a patient's teeth treatment information and digital images corresponding to a patient's teeth restoration information." This amendment changes the word "means" to "information," which is an abstract concept completely different from "means." As such, this amendment cannot be considered as an amendment for the restriction of the matters necessary to identify the invention stated in the claim (i.e. a means to identify dental restoration

needs), or the clarification of an ambiguous statement.

(2) Claims 10 to 12

Claim 10 after the Amendment is an independent claim to seek a patent additionally for the "computer-readable medium." Claims 11 and 12 cite and further limit Claim 10.

The scope of claims before the Amendment cites Claim 1 (or cites a claim citing Claim 1), seeks a patent for the "dental treatment system," and contains the word "network"; whereas Claims 10 to 12 after the Amendment seek a patent for the "data storage medium." The subject-matters of Claims 10 to 12 after the Amendment are different from those of the scope of claims before the Amendment, and none of them contains the word "network."

As such, the Amendment to Claims 10 to 12 cannot be considered as an amendment for the restriction of the matters necessary to identify the invention stated in the claim (i.e. a means to identify dental restoration needs), or the clarification of an ambiguous statement.

(3) As it is obvious that none of the Amendment to Claims 1 and 10 to 12 is the deletion of a claim or claims or the correction of errors, the JPO's decision to dismiss the Amendment due to the dissatisfaction of the requirement of amendment is does not contain any error.

(4) As mentioned above, there are no grounds for rescission (1).

2. Grounds for seeking rescission (2) (incorrect finding as to whether each of the Inventions satisfies the requirement of an "invention" within the meaning defined in the Patent Act)

(1) Invention 1

A. For Claim 1, the JPO rendered the following trial decision:

"Claim 1 contains, as the matters necessary to define the invention, the terms 'a means to identify dental restoration needs' and 'a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration.'"

"It is a socially accepted idea that a dentist, during the course of his/her mental activities, identifies a patient's dental treatment needs or develops a preliminary treatment plan. Therefore, it is understood that 'a means to identify dental restoration needs' and 'a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration' as referred to in Claim 1 are a dentist's activities themselves. For this reason, it can be understood that the

respective 'means' as referred to in Claim 1 represents the dentist's activities to 'identify' the dental needs and to 'develop' a dental treatment plan in the course of his/her mental activities."

"For the sake of assurance, in this respect, the panel of trial examiners discussed the statement of the patent description other than the claims, as well as the drawings. However, with regard to the phrases 'a means to identify dental restoration needs' and 'a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration,' no statement could be found which defines otherwise, for example, that these means do not represent a dentist's activities themselves, or that these acts do not relate to a dentist's mental activities."

"Claim 1 was amended from the invention of 'interactive dental treatment network' to 'computer-based dental treatment system.' Further, the expressions 'to identify' and 'to develop' were amended to 'a means to identify' and 'a means to develop,' respectively. As explained above, among these expressions 'a means to identify' and 'a means to develop,' the term 'a means' was used, as the matter to identify the invention, to express that these are the activities of a dentist in the course of his/her mental activities. As such, even considering the totality of the invention pertaining to Claim 1, this invention cannot be considered as a creation of technical ideas utilizing the laws of nature."

"Accordingly, it should be concluded that the invention pertaining to Claim 1 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature."

(Page 8, Line 32 to Page 9, Line 35)

Therefore, the court makes discussion about the above-mentioned finding of the JPO decision.

- B. (A) Claim 1 before the Amendment discloses the following matters (Exhibit Ko No. 4).

"A computer-based dental treatment system comprising:

- a network server with a database that store information on materials, procedures and preparations concerning dental prostheses;
- a communication network providing access to said network server;
- one or more computers for accessing information stored in the

database and displaying said information in a human-readable format, located at least at a dental office;

- a means to identify dental restoration needs;
- a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration;
- wherein said communication network transmits the preliminary treatment plan to the dental laboratory;
- and wherein said communication network transmits a final treatment plan, including modifications to the preliminary treatment plan as may be necessary, to the dental office"

- (B) From the statement of Claim 1, Invention 1 relates to the "dental treatment system," comprises of "a network server with a database," "a communication network," "one or more computers," "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan," and is "computer-based."

In addition, the term "system" means "an aggregation of elements, in which two or more elements have an organic relationship with each other, performing an integrated function as a whole" (*Kojien* Japanese dictionary, 4th edition). As for this case, Invention 1 can be understood as the abovementioned aggregation of elements, in which the elements relate to each other based on computers, performing a function for the dental treatment as a whole.

- C. Meanwhile, the patentable "invention" is a "creation of technical ideas utilizing the laws of nature" (Article 2, paragraph (1) of the Patent Act), which is completed through the processes of identifying of a certain technical problem, deciding the technical means to solve such technical problem, and verifying that the technical means has an effect to achieve the intended purpose.

Therefore, a mental activity of a human being itself is not an "invention" and therefore is not considered as a patentable subject-matter. However, a creation is not precluded from being considered as an "invention" merely because it includes or relates to a mental activity of a human being. Namely, all technical means have connection to human activities in some way or other, as all technical means are created by human beings, assisting, facilitating or replacing

human beings' activities including their mental activities.

Accordingly, even where a claim discloses some kind of technical means, the claimed invention is not considered as an "invention" within the meaning defined in Article 2, paragraph (1) of the Patent Act, as long as the essential nature of the invention, when viewed as the entirety of the description of claim, is directed to a human being's mental activities. Meanwhile, even where an invention includes or relates to a human being's mental activities, patentability of such invention should not be denied on the grounds of not being considered as an "invention" within the meaning defined in the Patent Act, as long as the essential nature of the invention provides the means assisting, facilitating or replacing a human being's mental activities.

D. Next, the court discusses Invention 1 according to this rationale. The terms "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration" in Claim 1 themselves are not sufficient to demarcate the scope of the computer-based elements. In addition, according to the original meaning, the word "system" does not necessarily exclude a human being from its element. Therefore, the terms "a means to identify" and "a means to develop" as mentioned above can be understood to include activities of a human being, including mental activities. In addition, as the acts to "identify the dental restoration needs" and "develop a preliminary treatment plan" are ultimately implemented by a human being, Invention 1 is at least considered to be connected to a mental activity of a human being.

However, as mentioned in C. above, the patentability of a creation stated in the claim is not denied merely because it includes or relates to a human being's mental activities. Therefore, the court further discusses the essential nature of Invention 1.

E. As mentioned in D. above, the court finds a special circumstance, in which the technical meanings of the terms "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration" in Claim 1 cannot be unambiguously interpreted, and consequently, for the purpose of the identification of the gist of Invention 1, the technical significance of the scope of claims cannot be unambiguously

interpreted. Therefore, the court further discusses the contents of the detailed explanation of the invention contained in the patent description.

(A) The patent description of the Inventions discloses the following matters:

"[Technical Field] The inventions relate to methods, systems and devices for dental prosthesis, wherein communications between the dentist and dental prosthesis laboratory are held in real time to discuss, finalize and optimize a treatment plan for a patient. More specifically, the inventions relate to an interactive, computer-based system and method to enable the dentist and the dental laboratory to analyze color images of one or more teeth and teeth preparation so that a tooth prosthesis or crown can be appropriately designed to precisely match the tooth that is to be replaced in certain clinical or cosmetic procedures." [0001]

"[Background of the invention] Restorative dentistry is the art and science of replacing or restoring lost tooth structure. The amount of tooth structure to be replaced determines what path the dentist takes, i.e., whether the restoration will be a crown, bridge, inlay, onlay or direct restoration (i.e., a filling). The choice of that path in the past was simpler, due to the limited number of materials and techniques available. For example, U.S. patent publications Nos. 5766006 and 5961324 describe the methods and systems for determining tooth color information based upon digital images provided by a camera and then matching the color of the restoration article (i.e., dental prosthesis) with the determined tooth color. In recent years, however, with the advent of new materials and concepts, treatment choices have expanded in a phenomenal way. Dentists are now facing an overload of information in trying to decide which materials and procedures are the best suited for their particular cases. What the state-of-the-art dentist needs is the method to assist dentists and dental laboratories by developing the treatment plans and the best restorative dental treatment as necessary, and by utilizing the most appropriate materials available today. The present inventions solve such problem." [0002]

"[Summary of the inventions] The inventions relate to an interactive dental restoration method between a dentist and a dental laboratory. The basic steps of this method include the identification of a patient's

dental restoration needs; the development of a preliminary treatment plan that includes design requirements for the creation of a dental prosthesis to satisfy the patient's dental restoration needs; the transmission of the preliminary treatment plan to a dental laboratory via a communication network; and the communication of a final treatment plan, including modifications to the preliminary treatment plan, where necessary, to the dentist. Typically, the final treatment plan includes information on materials for creating a dental prosthesis that satisfies the design requirements, and the dental prosthesis is then processed for placement in the patient. This method enables optimization of the dental treatment, with significant savings in time and effort for the dentist, dental technician and the patient." [0003]

"Generally, the dentist prepares the preliminary treatment plan and the design requirements which include digital images showing the dental restoration needs. Thereafter, the preliminary treatment plan is transmitted to and evaluated by the dental laboratory before a final treatment plan is formulated and communicated to the dentist. The step of transmitting and evaluating the plan are implemented via the communication network. Thus, the final treatment plan is not implemented in the patient until after the preparation information is transmitted to the dental laboratory and confirmed, thus avoiding rework or revision after the plan has been implemented." [0004]

"Advantageously, the design requirements or the modifications thereto include a proposed decay excavation, tooth preparation, and dental prosthesis color, etc. When a dental prosthesis such as a crown, bridge or replacement tooth is needed, the method includes verifying that the dental prosthesis is prepared according to the final treatment plan prior to placement of the dental prosthesis in the patient. In order to obtain the best color match of the dental prosthesis with the patient's teeth, the digital image representations include the real image and reference images and the modifications include correlation of a color selection for the dental prosthesis to match the real image. Furthermore, the design requirements include tooth preparation and proposed decay excavation, and the method further comprises a communication of a confirmation or modification, from the dental laboratory, of the acceptability of one or more of the proposed design requirements."

[0005]

"The inventions also relate to a computer-based dental treatment system comprising: a network server with a database that stores information on materials, procedures and preparations concerning dental prosthesis; a communication network providing access to the network server; and one or more computers located at a dental office for accessing information stored in the database over the communication network and displaying information in a human-readable format. Preferably, the communication network is the Internet, and information stored in the database comprises preparation diagrams, reduction dimensions, margin design and burs for specific dental prostheses." [0006]

"Advantageously, the database further stores information concerning one or more patients having dental restoration needs. Also, the network server further comprises application programs enabling users to query the database regarding specific materials or procedures concerning dental prostheses for confirmation, verification, modification or evaluation of the same, with the abovementioned one or more computers located at the dental office receiving answers from the database to such queries. If desired, a printer located at the dental office can be used to print these answers for use by the dentist for bringing them out for reference." [0007]

(B) Based on the statements as mentioned above, it is understood that the Inventions provide the method and system assisting a dentist and a dental technician in developing a dental treatment plan and the most appropriate dental restoration treatment plan using the best suited materials, and provide a means to assist some part of the activities formerly performed by a dentist and a dental technician. In the background is a problem consciousness that, although the choice of dental treatment methods was simpler in the past due to the limited number of materials and techniques available, in recent years, with the advent of new materials and technologies, treatment choices have expanded in a phenomenal way, and dentists are now facing an overload of information in trying to decide which materials and procedures are the best suited for their particular cases.

The database stores information on materials of dental prosthesis,

processing methods and preparation. The network server is equipped with a program enabling users to query the database for materials of dental prosthesis and processing methods. In the dental office or the dental laboratory, computers which display information in a human readable format are located, enabling verification, finalization, modification or evaluation of dental prosthesis materials and processing methods and reception from the database of the responses to the query. The Inventions are further equipped with the means to analyze the color images of teeth and teeth preparations, and are capable of displaying digital images necessary for matching the color of the dental prosthesis to the color of the patient's tooth as closely as possible.

(C) The patent description of the Inventions further discloses the following matters as the "detailed explanation of the invention."

"[Detailed explanation of the inventions] Next, the details of the dental treatment network for the dentists' use pertaining to the Inventions are explained. The present inventions now provide an enhanced dental restoration network as a service for dentists. This network would be established via a computerized link between the dentist, the dental laboratory, and, optionally, the dental laboratory's databank of the latest information regarding materials, procedures, and other works such as preparation design and surveying for dental prostheses such as caps, crowns, bridges, fillings and the like." [0010]

"In the specific case, as the first step, a complicated examination and diagnosis of the patient's dental condition is performed by the dentist. This generally includes a basic periodontal examination, clinical examination, radiographs, screening for TMD, etc. The dentist also develops a treatment plan for addressing the dental needs of the patient. When tooth capping or replacement is required, clinical pictures are taken and captured on a program and are forwarded to the dental laboratory. These pictures can relate to the color of the patient's teeth, the preparation of a tooth for treatment, or a temporary treatment which can be modified or enhanced before the final treatment. The pictures can be chosen from any various methods, as described in more detail below." [0011]

"In these inventions, an on-site advanced restorative system is

provided, wherein the dentist takes one or more digital images of the tooth prior to the treatment, eliminates areas of decay in the image, and matches the shade of material to be used to for the dental treatment based upon the digital images of the tooth prior to removal. In another aspect, the dentist takes digital images of the tooth after preparation and matches the shade of the material to be used for the restoration based upon the remaining parts of tooth. These images are forwarded by facsimile, direct computer link, or by e-mail to the dental laboratory, and are analyzed based on the dentist's preliminary treatment plan." [0012]

"After a preliminary treatment plan is developed, and the periodontal needs conditions, decay excavation, endodontic conditions, etc. are checked, the restorative needs are considered. If the treatment plan includes fixed prosthesis (crowns and bridges), the clinical images are then transmitted to the dental laboratory. The dentist and the dental technician assess the case together prior to accessing the interactive dental treatment network (the "site"). An illustration of the entire picture of such network is shown in Figure 16, which is described in more detail below. If only a direct restoration is necessary, the dentist can treat such part directly." [0013]

"If a dental laboratory, not a dentist, has access to the site, the dentist can send the images to the dental laboratory, and the dental technician can immediately access the site and consult with the dentist by providing restorative options obtained on the site. This service is provided by a dental laboratory to a dentist, and is not particularly suited for the computer-based processing and communication on the site." [0014]

"The site provides the users with an access to information on materials, procedures using such materials including the preparation design, burs suitable for implementation of such preparation, appropriate temporary materials, cements that should be used with that given material, instructions on how to use such a cement (i.e., conditions such as whether one should etch or prime, for how long, whether to dry it or not, to pre-cure it or not, etc.), and where to buy such materials. Meanwhile, the dental laboratory can explain the method of providing such services, and the persons with whom the dentist may

contact to obtain such service. In addition to this, once the treatment is commenced, the dentist can reconfirm the preparation with the dental technician, if necessary, by sending digital images electronically for review prior to the creation of the final impressions. For a more precise analysis in the treatment, a dentist can scan the preparations and go to the part of the site which surveys the teeth and assess the reduction amount. This is specifically applied to large and complicated cases."

"The site offers a number of means for communicating dental treatment information between a dentist and a dental technician. One of the most unique features of the site is that it is interactive. Rather than just being a databank of information for the dentist to review, it enables the dentist to go through a step-by-step procedure to determine the most appropriate restoration method. The site could be visited periodically to consider alternative procedures, different options or to confirm that the previous treatment plans are implemented in an appropriate manner. Although many dentists read articles and reports and attend seminars to obtain the latest information, until there is a case in hand, most of such information is not applicable. By the time a given case corresponds to a case presented at a previous seminar, the dentist may have already forgotten said information. The method and system of the Inventions provide immediate feedback of the most up-to-date information in real time for the specific need of the current patient." [0015]

"When dentists' accesses the site, certain questions regarding the patient's history are presented. Typical questions related to the consideration of dental treatment procedures include: "Is esthetics a main concern?" "Is the patient a bruxer (i.e., heavy grinder)?" "What is the extension of the patient's smile (i.e. the maximum number of teeth visible on the patient's widest smile)?" "Does the patient have a high lip line, (i.e., does their lip lie below the incisal edge, midtooth, at the cervical margin, or above the cervical margin)?" "Does the patient show mandibular (lower) teeth when he/she smiles?" "Is the opposing occlusion natural?" "If not, are they metal, porcelain, amalgam, composite or denture teeth?" By providing the dental laboratory with additional information, a sound, tailored treatment plan can be

confirmed and recommended." [0016]

"The dental laboratory then considers questions regarding the teeth: 'Are they anterior or posterior? "Endodontically treated or vital?" What shade are they initially? (Information on how to obtain the color of the teeth is disclosed in the other application [Please insert here]) "What are the dimensions of the tooth (i.e. is it a short clinical crown, or average to larger than average in size)?' 'Are there any implants involved?' The process would operate like an 'elimination tree,' and if the first question of esthetic concern is a 'no,' the site would not go on to ask smile dimensions and such. When all questions are answered, a profile is compiled, and any given patient may require their case to be divided into more than one profile depending on the scope of their needs, for example, corresponding to sections of their mouth in quadrants." [0017]

"Another issue to be addressed is that of materials. This would involve the consideration of the material name, its characteristics and merits, and the reason for the suggestion. 'Suggestion' is the important word here, because it is the dentist who ultimately determines the treatment method to be used, not the dental technician or the site. After the dentist chooses materials, he/she needs to know where to obtain it, if he/she has not yet obtained it. Therefore, a dentist is required to purchase materials, either through the ordering area of the site, or by contacting a dental laboratory that uses such a system." [0018]

"After given material is obtained by the site, the issue of the preparation design is considered. Different materials demand different substructures and margins. There are not a tremendous number of different designs needed. Within the site, there are the files for preparation diagrams, which can be printed out by the dentist, if necessary, to provide reduction dimensions, margin designs and the burs necessary. This includes bur name and number, type and where to obtain them. Once again, a dentist may order this through the site or obtain information on where it could be purchased. The dentist can simply prepare an order list and obtain all materials for a particular treatment." [0019]

"Once the case is underway, and the initial preparations are completed, a dentist goes back to the site and scans the preparations to assure

accuracy. Alternatively, digital representations of the preparations are sent back to the site or the dental laboratory for their further review. One of the preparations can also be made by accessing a survey area of the site. By analyzing the preparation, undercuts, under-reduction, margin extension, and highlight areas are prepared, and this is to be modified for optimum results." [0020]

"A real-time communication with the site can save a great amount of time and effort. By first confirming that the preparations and the suggested dental treatment methods are correct, the dental laboratory would not have to pour and work on models of a case that were not useable because the preparations required changing. Also saved is the time of having the patient return to the office on multiple occasions for refining preparations. This is a significant benefit for both dentists and dental laboratories. By providing the dental laboratory staff member with such information, the needs of taking an impression, pouring up models and surveying them with a traditional surveyor are eliminated, and time, materials and expenses due to repeated work are saved." [0021]

"Another advantage of real time analysis is reduction. The most common errors in preparation is under-reduction (i.e., not removing enough tooth structure to allow room for the materials that will make up the crown or restoration), which causes either too thin a restoration in that area which can lead to future failure, or re-preparation and new impressions (i.e., more wasted chair time) or reduction copings. Within the survey site, a dentist can more accurately scan the preparation, checking the teeth in occlusion so as to measure the amount of reduction to the tenth of a millimeter. Then, the dentist can compare this measured figure to the given specifications of the preparation he/she had retrieved earlier from the preparation design area of the site to confirm compliance." [0022]

Further, Paragraph [0024] and the subsequent paragraphs disclose the photographing device of teeth, etc. by a digital camera and the method of processing digital data of teeth, etc. Paragraphs [0118] to [0121] describe the interactive network system of the Inventions, together with [Drawing 16]. Lastly, Exhibit A is attached as the list of computer programs to be used for a part of the Inventions.

(D) From the statements of Paragraphs [0010], [0012], [0013] and [0015] above, it can be understood that the preliminary treatment plan includes digital images of teeth, etc.; materials, processing method, processing design, etc. for the teeth treatment is determined based on such digital images; data necessary for such determination is stored in the database; and the developed preliminary treatment plan is communicated between the dental office and the dental laboratory via the network. Further, although the tasks including the acquisition and selection of images or selection of materials would require a dentist's activities, these are understood to be implemented by a computer connected to the network capable of displaying the images.

In addition, from the statements of Paragraphs [0020], [0021] and [0022] above, it can be understood that the Inventions are equipped with a scanner, and are capable of verifying the necessity of amendment to the treatment plan through inputting data by scanning a tooth or a tooth preparation and then comparing such data with the specification stored in the database. However, this verification task is actually undertaken by a person.

- F. Based on the above, "a means to identify dental restoration needs" and "a means to develop a preliminary treatment plan, including a design criterion for the preparation of a dental prosthesis for said dental restoration" as stated in Claim 1 contain the elements to be implemented by a human being, and mental activities such as assessment and judgment would be required for the implementation of Invention 1. However, in light of the purpose of the invention and the detailed explanation of the invention contained in the patent description, it is difficult to consider that Invention 1 is directed to mental activities themselves, and, when viewed as a whole, can be understood as providing a computer-based technical means for assisting dental treatment, comprising of "a network server equipped with a database," "a communication network," "a computer located in the dental office" and "device capable of displaying and processing the images."
- G. Therefore, Invention 1 can be considered as a "creation of technical ideas utilizing the laws of nature," and the JPO's decision that it does not fall under an "invention" within the meaning defined in Article 2, paragraph (1) of the Patent Act is inadmissible.

(2) Inventions 2 to 10

A. The JPO rendered the following trial decision. [i] For Inventions 2 to 10: "The invention pertaining to Claim 1 does not fall under a creation of technical ideas utilizing the laws of nature. Consequently, it should be concluded that each of the inventions of other claims, directly or indirectly citing Claim 1 without restricting the meaning of the words 'a means to identify' or 'a means to develop,' also does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature." (Page 9, Line 36 to Page 10, Line 3) [ii] For Inventions 2, 3, 6 and 7: "The primal matters necessary to define the inventions of Claims 2, 3, 6 and 7 are as follows: 'wherein preliminary treatment plan, and the design criterion including the digital image preparations for the dental treatment needs are created in the dental office' (Claim 2), 'which further comprises the evaluation of the preliminary treatment plan at the dental laboratory before transmitting the final treatment plan to the dental office' (Claim 3), 'which further comprises the creation of a dental prosthesis satisfying the design criterion for the final treatment plan and placing such dental prosthesis in a patient' (Claim 6), and 'which further comprises the verification that the dental prosthesis is created according to the final treatment plan prior to placing it in a patient' (Claim 7). The actors of these activities are a dentist and a dental technician, and therefore all these activities are understood to represent a human being's mental activities themselves, or activities based on such activities." "As such, it should be concluded that each of the inventions of Claims 2, 3, 6 and 7 does not fall under an invention as defined in Article 2, paragraph (1) of the Patent Act, namely, a creation of technical ideas utilizing the laws of nature." (Page 10, Lines 5 to 17)

B. However, the finding as mentioned in A.[i] is inadmissible as it postulates that Invention 1 does not fall under an "invention" as defined in Article 2, paragraph (1) of the Patent Act.

Further, with regard to the finding as mentioned in A.[ii] as well, on the premises of the court's finding in (1) above, it is impossible to conclude that none of the alleged primal matters necessary to define the inventions of Claims 2, 3, 6 and 7, directly or indirectly citing Claim 1, fall under an "invention" within the meaning defined in Article 2, paragraph (1) of the Patent Act, on the ground that these matters represent a human being's mental activities or activities based on such activities. Therefore, the JPO's

finding in this respect is inadmissible.

C. Therefore, the JPO's decision that each of Inventions 2 to 10 does not fall under an "invention" within the meaning defined in Article 2, paragraph (1) of the Patent Act is also inadmissible.

3. Conclusion

Based on the above, the grounds for seeking rescission (1) as alleged by the plaintiff is groundless; however, with regard to the ground for seeking rescission (2), the JPO's decision that each of Inventions 1 to 10 is not an "invention" within the meaning defined in Article 2, paragraph (1) of the Patent Act and does not satisfy the requirement of an "invention" under the first sentence of Article 29, paragraph (1) of the Patent Act is admissible; therefore, the JPO decision should be revoked as being illegal.

Intellectual Property High Court, First Division

Presiding Judge:	Tomokatsu Tsukahara
Judge:	Tomonari Honda
Judge:	Koichi Tanaka