

5 System Ensuring that Stable Patents Are Granted (*)

Since the 2003 revision of the Patent Act, the post-grant opposition system and the patent invalidation trial system have been integrated and unified, and have been replaced with a new patent invalidation trial system that also functions as a post-grant opposition system. However, the current patent invalidation trial system does not seem to be performing well as an alternative to the former post-grant opposition system, because the number of requests for patent invalidation trials, which showed a temporary increase after the 2003 revision, has remained at the pre-revision level. As a result of a reduction in the examination pendency period and a rise in the number of requests for accelerated examination, there has been an increase in the number of patents granted without providing third parties an adequate opportunity to submit information. Furthermore, it has been pointed out that, in comparison with other countries, Japan offers fewer opportunities for post-grant patent screening for eliminating defective patents.

This research study has been conducted to prepare basic data on which to base a future system that would ensure that stable patents are granted by studying and analyzing the current patent invalidation trial system, the current information submission system, etc.

I Introduction

1 Background of this Research Study

In order to ensure the validity of patents, the patent invalidation trial system was established as a means to extinguish defective patents (Article 123 of the Patent Act). Since the 2003 revision of the Patent Act, the post-grant opposition system and the patent invalidation trial system have been integrated and unified, and later replaced with a new patent invalidation trial system that functions as a post-grant opposition system.

However, the current patent invalidation trial system does not seem to be performing well as an alternative for the former post-grant opposition system, because the number of requests for patent invalidation trials, which showed a temporary increase after the 2003 revision, has remained at the pre-revision level. It has been pointed out that the usability of a patent invalidation trial, which is conducted through oral proceedings in principle, is lower than that of the former post-grant opposition system. Moreover, the post-grant information submission system, which was established in conjunction with the revision, has also failed to attract many users.

As a result of a reduction in the examination pendency period and a rise in the number of requests for accelerated examination, there has been an increase in the number of patents granted without providing third parties an adequate opportunity to submit information. In particular, if a decision of patent grant is made prior to

publication of the application, the patent would be granted without providing third parties with any opportunity at all to submit information. Furthermore, it has been pointed out that, in comparison with other countries, Japan offers fewer opportunities for post-grant patent screening for eliminating defective patents.

2 Purpose of this Research Study

The purpose of this research study is to prepare basic data to discuss a future system that would ensure that stable patents are granted by studying and analyzing the current systems, including the patent invalidation trial system and the information submission system, etc.

3 Method of this Research Study

In this research study, in order to achieve the aforementioned purpose, we did the following:

- We established a committee of 11 members: 5 academic experts with relevant knowledge and experience, 4 experts from the industrial circle, and 1 lawyer and 1 patent attorney. The committee held four meetings to discuss the necessity for a means to allow easy and early post-grant review of patent validity from the perspectives of experts in the fields of law and economics.
- We conducted a domestic questionnaire survey concerning the patent invalidation trial system, the information submission system, and the former post-grant opposition system by

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sending a questionnaire to 1,071 companies and firms (971 companies, etc. and 100 law firms and patent attorneys' offices) to collect information from the respondents regarding their use of the systems, the purpose of use, and any problems in connection with the systems. We received replies from 485 companies and offices;

- We conducted a domestic interview survey on 10 companies and firms (9 companies and 1 law firm) selected from the respondents of the aforementioned domestic questionnaire survey in order to collect opinions, etc., concerning the issues and problems related to the patent invalidation trial system, the information submission system, and the former post-grant opposition system.
- We conducted an overseas interview survey with the United States Patent and Trademark Office (USPTO), three law firms in the United States, and 1 University researcher in order to understand the latest system designed to review the validity of a patent easily after the grant of the patent.
- We studied, examined, and analyzed the patent invalidation trial system, the opposition system, etc., of various countries (including Japan) from the legal and economic perspectives by using information collected from books, academic papers, judicial precedents, research reports, committee reports, databases, the Internet, etc.

II The Current System to Ensure that Stable Patents Are Granted in Japan and Related Issues

1 Patent Invalidation Trial (Article 123 of the Patent Act)

(1) The Purpose, Outline, and Use of the System, and Related Issues

The 2003 law revision abolished the post-grant opposition system and created a new patent invalidation trial system that also functions as a post-grant opposition system.

The number of requests for patent invalidation trials per year had sharply increased since the abolishment of the post-grant opposition system between 2003 and 2004. An analysis of the requests filed during this period revealed that there was an increase in the number of requests made within one year from patent registration. This indicates that the increase can be attributed to the filing of requests for patent invalidation

trials made in lieu of the filing of post-grant oppositions, although the increase is much smaller than the number of oppositions filed under the former post-grant opposition system.

In 2011, there were 269 requests for patent invalidation trials, which means that the number of requests has returned to the level it had been prior to the abolishment of the post-grant opposition system.

These facts suggest that, in the year (2004) following the abolishment of the post-grant opposition system, the new patent invalidation trial system satisfied a part of the applicants' need to function as the opposition system, while, currently, the patent invalidation trial system rarely serves such function and plays no active role as a substitute for the abolished post-grant opposition system.

(2) Results of the Domestic Questionnaire Survey and the Domestic Interview Survey

The domestic questionnaire survey revealed that many respondents use the patent invalidation trial system as a "means against the exercise of a patent right (e.g., upon filing of an infringement lawsuit or upon receipt of a warning)" and as a "means against another person's patent that hinders or could hinder its own business in the future (including R&D activities and other activities that affect its future operations)." Many respondents have stated that they would hesitate to use or give up using the patent invalidation trial system against another person's patent even if it is closely related to their own business if they find the procedural burdens and oral proceedings overwhelming, or if they find it reasonable to present the reasons for invalidation or request a patent invalidation trial only after receiving a warning, etc., or after getting involved in a dispute. In the domestic interview survey, some respondents also pointed out that, even if they detect another person's patent that may be related to their own business, they would find it difficult to use the patent invalidation trial system, given the significant procedural and monetary burdens and the difficulty to use the system anonymously.

2 Post-grant Opposition (Article 113 of the Patent Act Prior to the 2003 Revision)

(1) Background of the Introduction of the System and the Outline and Use of the System

The pre-grant opposition system was abolished by the 1994 revision of the Patent Act in order to solve the problem that the system could delay patent grants and to promote international harmonization. The post-grant opposition system was then introduced as a replacement. At the time, the roles of the post-grant opposition system and the patent invalidation trial system were considered as follows:

- (i) The purpose of the post-grant opposition system is to increase patent reliability and allow the Japan Patent Office (JPO) itself to receive an opposition to a patent and examine its patentability and to make corrections if the JPO finds the patent defective.
- (ii) On the other hand, the patent invalidation trial system is a means to solving a dispute between the interested parties over a patentability decision by the JPO. This is why the system is usually used as a means of defense by an interested party involved in a patent dispute, such as a patent infringement lawsuit.

In 2003, the post-grant opposition system was used in 4,800 cases (a total number of applications). The results of a research conducted in 2003 have shown that 76% of the patents that were subject to the post-grant opposition system were corrected or revoked due to a certain defect.

(2) The Results of the Domestic Questionnaire Survey and the Domestic Interview Survey

According to the results of the domestic questionnaire survey, more respondents answered that they use the post-grant opposition system "as a means against another person's patent that hinders or could hinder its own business in the future (including R&D activities and other activities that affect its future operations)" rather than "as a means against the exercise of a patent right (e.g., upon filing of an infringement lawsuit or upon receipt of a warning)." In contrast, in the case of the patent invalidation trial system, the number of respondents giving the former answer is smaller than the number of respondents giving the latter

answer. This suggests that many users use the post-grant opposition system and the patent invalidation trial system for different purposes. As an answer to the question about reasons for hesitating to use or giving up using the system against another person's patent closely related to its own business, 32.6% of respondents chose "significant procedural burdens" in the case of a question about the patent invalidation trial system, while only 10.6% of respondents chose the same answer in the case of a question about the post-grant opposition system. This suggests that the users consider the post-grant opposition system to be less burdensome than the patent invalidation trial system in terms of procedure.

Many respondents stated that, as a result of the abolishment of the post-grant opposition system, "their business has been restricted due to an increase in the number of other parties' defective patents which is caused by a decrease in the amount of information made available after a patent grant." Meanwhile, some respondents have stated that there has been a decrease in the costs related to the post-grant opposition system, while other respondents have indicated that there has been an increase in the costs aside from the costs related to the post-grant opposition system, by saying, for example, that "there has been an increase in the costs and necessary man-hours related to invalidation trials or preparing an expert opinion in writing." Despite the cost reduction related to the post-grant opposition system, since other costs have increased (information submission, patent invalidation trial, expert opinion in writing, etc.), it is difficult to determine, based solely on the results of the domestic questionnaire survey, whether the costs have been reduced as a whole.

In the domestic interview survey, with respect to the question as to whether the post-grant opposition system should be designed to allow further participation of the petitioner by taking such action as submitting a document explaining the reasons for revocation in response to a patentee's written opinion or a request for correction, many respondents have answered that the petitioner should be given an opportunity to present a counterargument.

3 Pre-grant Information Submission System (Article 13-2 of the Ordinance for Enforcement of the Patent Act)

(1) The Purpose, Outline, and Use of the System and Related Issues

The pre-grant information submission system was established under the Ordinance for Enforcement of the Patent Act in connection with the introduction of the application publication system in 1970 for the purpose of enhancing the examination's accuracy and efficiency.

The number of cases where the information submission system was used has increased from about 4,700 in 2003 to about 6,000 the following year (an increase of about 1,300). It has continued increasing to about 7,600 cases in 2009 (increased from the level in 2003 by about 2,900 cases). This suggests that the pre-grant information submission system was used in lieu of the former post-grant opposition system.

As a result of a reduction in the examination pendency period and a rise in the number of requests for accelerated examination, there has been an increase in the number of patents granted without providing third parties with an opportunity to submit information prior to patent grant. The number of patents granted prior to the publication of the application has been on the rise.

(2) The Results of the Domestic Questionnaire Survey and the Domestic Interview Survey

To the question on the use of a pre-grant information submission system, more users responded positively to the use of the system than negatively, among the respondents. About half of the respondents stated that they did not use the system actively because the use of the system would "reveal their interest in particular applications."

Regarding the burdens imposed by the pre-grant information submission system, many respondents stated that "since the scope of claims has not yet been determined prior to a patent grant, the technical features that need to be examined are large in number or scope." Furthermore, as described above, in the situation where an increasing number of patents are granted without providing third parties with an opportunity to submit information prior to patent grant, it was revealed that at least 35.2% of the respondents had had experience that, although they had wanted to submit information prior to the grant of a patent, they had been unable to do

so before the patent grant. Some respondents of the domestic interview survey have also stated that "it is problematic that we are unable to submit information because the timing of the patent grant is too early or unpredictable."

4 Post-grant Information Submission System (Article 13-3 of the Ordinance for Enforcement of the Patent Act)

(1) The Purpose, Outline, and Use of the System and Related Issues

The 2003 law revision abolished the post-grant opposition system, integrated it into the patent invalidation trial system, and made other modifications. Consequently, a new provision concerning the post-grant information submission system was added to the Ordinance for Enforcement of the Patent Act. However, since the post-grant information submission system was introduced, the number of cases where the system was used has been less than 100 per year. This suggests that the system has not been used as a substitute for the post-grant opposition system.

(2) The Results of the Domestic Questionnaire Survey and the Domestic Interview Survey

To the question on the frequency of use of the post-grant information submission system, 94.3% of respondents have reported that they are reluctant to use the system. ("We are not enthusiastic about the system and rarely use the system." "We do not use the system.") As a reason for their reluctance, the largest percentage of the respondents has stated, "Our submission of information would not necessarily commence the procedure for patent validity judgment and could end up in nothing." In the domestic interview survey, many respondents have also replied that they do not use the system for the same reasons.

5 Development of the Current System and Its Overall Evaluation

(1) Development of the Current System and Related Issues

Since the 2003 revision, which abolished the post-grant opposition system, the following issues seem to have emerged, according to the statistics on the number of cases where an applicant used the patent invalidation trial system,

the information submission system, or the accelerated examination system described above:

- Limitation on the ability of the patent invalidation trial system to perform the function of the post-grant opposition system;
- Emergence of problems such as the deterioration of the function of the pre-grant information submission system;
- Low frequency of use of the newly established post-grant information submission system; and
- Risk of granting an increasing number of patents having grounds for invalidation.

(2) The Results of the Domestic Questionnaire Survey and the Domestic Interview Survey

In the domestic questionnaire survey, about 60% of respondents described the current system as "satisfactory" from "the viewpoint of an applicant (patentee)." On the other hand, only 28.7% described the system as "satisfactory" from "the viewpoint of a person against which a patent right is exercised." They have pointed out such specific problems as the difficulty in using the information submission system and the patent invalidation trial system as a third-party observation system and their reluctance to use those systems as a means to eliminate low-quality patents because it is significantly burdensome. 67.6% of the respondents have stated that another opportunity should be given for patent review or that the system should be reformed. This suggests that many users hope to have such a system. The survey has revealed that some respondents hope to be given this new opportunity under the former opposition system. Furthermore, regarding the question about a future system to ensure that stable patents are granted, the respondents' open answers include "the enhancement of examination quality."

In the domestic interview survey, some respondents have pointed out that one of the merits of the 2003 revision was "a decrease in the man-hours for making oppositions." However, some respondents have stated that the demerits outweigh the merits over all. Furthermore, some respondents have mentioned that the demerits are that "we have to file a labor-intensive invalidation trial in some cases," that "we have to circumvent a patent unless we are able to file an opposition to eliminate it," and that "we consider it burdensome to continue monitoring activities by using data on patent invalidation."

III Current Systems to Ensure that Stable Patents Are Granted in Other Countries

1 United States

In the United States, since around 2003, it has been reported that patents that are likely to be invalid or contain overly broad claims, or otherwise questionable ones ("questionable patents") would hinder innovation, or that low-quality patents have been increasing litigation costs.

In response to the criticism expressed in these reports, the U.S. Congress started discussing the amendment of the U.S. Patent Laws in 2005. The amendment submitted to the 112th Congress in 2011 was passed by Congress after several modifications (the name was also changed to the Leahy-Smith America Invents Act (AIA)).

The overseas interview survey revealed that a new review system (Post Grant Review and Inter Partes Review) introduced under the AIA is expected to reduce overall social costs as well as users' burdens because it provides a less expensive way of invalidating patents than the one provided by judicial proceedings. The new review system would shorten disputes over patent validity and reduce the burdens on courts, although the introduction of the review system would increase burdens on the USPTO.

2 Germany

Germany has two types of post-grant patents review system: the opposition system specified in Article 59 of the German Patent Act and the patent invalidation proceedings specified in Article 81 of the German Patent Act. In comparison with the current Japanese system, the German Patent Act is different in that it has a system similar to the Japanese opposition system, which was in effect prior to the 2003 revision. According to these systems, once the period during which an opposition can be made has passed, any person seeking invalidation of a patent is required to file a lawsuit with the court, rather than filing a trial with the patent office.

3 United Kingdom

The United Kingdom has two types of post-grant patents review system, either of which a petitioner can choose: the procedure for

revocation by the Comptroller of the UK Intellectual Property Office (IPO) specified in Section 72 of the UK Patent Act and the judicial revocation proceedings. Furthermore, in certain cases, such person may use the system of ex officio revocation by the Comptroller of the UK IPO (Section 73(1) of the UK Patent Act). In comparison with the current Japanese system, the UK Patent Act is different in that it offers an option of choosing judicial proceedings aside from the option of following the procedure with the IPO and also in that the Comptroller of the UK IPO is permitted to revoke a patent ex officio.

4 Europe (the European Patent Convention)

The European Patent Convention specifies an opposition system in Article 99 of the European Patent Convention as a review system for patents granted by the European Patent Office (EPO) under said Convention.

5 South Korea

Under the South Korean Patent Act that was in effect prior to the 2006 revision, two systems were established as post-grant patent review systems: the opposition system, which permitted the filing of an opposition only during a certain period of time after the patent registration, and the invalidation trial system. However, since the 2006 revision, the opposition system has been integrated with the invalidation trial system. The legal revisions in South Korea and Japan are similar in that each country made a legal revision to integrate the former opposition system with the invalidation trial system. However, the South Korean's invalidation trial system, which has been integrated with the opposition system, is different from the Japanese invalidation trial system in terms of the criteria for applicants.

6 China

As a post-grant patent review system, China has an invalidation declaration request system, which permits any person who detects a patent granted in violation of any provision of the Chinese Patent Law to request that the SIPO's Patent Reexamination Board declare the patent invalid. In the past, China used to have a system, which is similar to the Japanese former post-grant opposition system, that permitted any person to file a request for revocation of a patent right within six months from the patent publication

date. This system was abolished in the second revision of the Patent Law in 2001.

IV Academic Papers on the Systems to Ensure the Grant of Stable Patents Written from an Economic Perspective

A paper by Mark A. Lemley (2001) examined patent stability, the opposition system and the invalidation trial system from an economic perspective. He argues that the civil action challenging the validity of the patent is more efficient than the patent examination system in eliminating defective patents. In answer to Lemley's argument that the civil action should be the sole means of elimination, critics pointed out that an civil action challenging the validity of the patent is not filed for an economically valuable patent in some cases and that a time-consuming invalidation trial would hinder early patent grants and prevent companies from investing in their R&D activities and business activities. This suggests that, theoretically, it would be beneficial to establish a system that, unlike the patent examination system, eliminates defective patents with a focus on economically valuable patents and that, unlike the patent invalidation lawsuit system, does not impose significant monetary burdens and ensures early patent grants.

On the other hand, in the United States, Graham and Harhoff (2006) have quantitatively measured the economic effect of introducing the opposition system specified in the European Patent Convention, compared the benefit and costs of filing oppositions, and concluded that the benefits outweigh the costs. Furthermore, the research conducted by Nakamura, Maho, and Nagaoka (2010) (2011) has revealed that the Japanese opposition system has the effect of eliminating defective patents and that the invalidation trial system, which does not preserve anonymity, would not substitute the opposition system.

V Future System to Ensure that Stable Patents Are Granted

1 Roles of the Invalidation Trial System

While the current patent invalidation trial system is playing a role in solving disputes between the parties concerned, since the system does not preserve anonymity and imposes significant procedural burdens, it is not playing a

sufficient role in enhancing the reliability of patents, regardless of the existence of disputes between the parties. However, it used to be thought that such a role should be played by the former post-grant opposition system.

2 Necessity for the Establishment of a System that Allows Easy and Early Post-grant Review of Patent Validity

(1) Necessity for the Establishment of a System that Allows Easy and Early Post-grant Review of Patent Validity

There are two purposes for establishing a system that allows easy and early post-grant review of patent validity: to improve the efficiency of corporate activities and to reduce social costs.

(2) Effects on the Corporate Activities as a Result of the Introduction of a System that Allows Easy and Early Post-grant Review of Patent Validity

If a system similar to the former post-grant opposition system is introduced, it is expected, that the following effects would be brought about, according to the results of this research study:

Effect 1: A reduction in the business restrictions that have been tightened by an increase in the number of other companies' patents having grounds for invalidation.

Effect 2: Promotion of investment in development activities as a result of an increase in the validity of its own patent after the expiration of a review period.

Effect 3: The use of the newly introduced system would require additional labor and costs. Furthermore, additional labor and costs are also required to handle the requests filed under the newly introduced system.

Regarding Effect 3, while the amount of additional labor and costs varies depending on the type of system, a certain amount of additional labor and costs would be inevitable. On the other hand, regarding Effect 1 and Effect 2, the significance of effects would vary depending on how frequently each company uses the newly introduced system. However, since the domestic questionnaire survey has confirmed the significance of those effects, the newly introduced system is expected to have positive effects on companies as a whole. In both the domestic questionnaire survey and the domestic interview survey, many respondents supported the idea of creating an opportunity for easy and early patent

review.

(3) Increase or Decrease of Social Costs as a Result of the Introduction of a System that Allows Easy and Early Post-grant Review of Patent Validity

Academic papers written from a theoretical perspective have suggested that the social costs would be reduced in the following respects as a result of the introduction of a system, like the former post-grant opposition system, which allows early post-grant patent review:

- A reduction in business restrictions imposed by invalid patents; and
- Enhancement of the patent's function of promoting investment as a result of the early patent grants.

There is an academic paper (Graham and Harhoff (2006)) written from an empirical perspective, arguing that, if the United States introduces the opposition system specified in the European Patent Convention, the benefit of the opposition system would outweigh the costs. Another paper (Nakamura, Maho, and Nagaoka (2010) (2011)) argues that the invalidation trial system, which imposes significant monetary burdens and does not preserve anonymity, would not substitute the opposition system.

Based on the aforementioned research, the social costs are expected to be reduced as a result of the establishment of a system designed to allow easy post-grant review of patent validity.

3 Future System to Ensure that Stable Patents Are Granted

The establishment of a system similar to the former post-grant opposition system is expected to bring about the following effects in connection with other systems.

First, from the perspective of the pre-grant information submission system whose function is expected to deteriorate as a result of an increase in the examination's speed and in the use of the accelerated examination system, the introduction of a new system would, in a sense, supplement the deteriorating pre-grant information submission system. It would allow a person who has failed to submit information prior to a patent grant to use the newly established system, which is similar to the post-grant opposition system, and to eliminate a patent that should not have been granted in the first place due to the lack of patentability.

The second comes from the perspective of

the post-grant information submission system, which users consider useless in that the post-grant submission of information would not prompt patent validity re-examination. The introduction of a new system similar to the former post-grant opposition system would eliminate this problem and play a role in solving issues related to the post-grant information submission system.

While the patent invalidation trial system is not sufficiently substituting the former post-grant opposition system due to such reasons as "the use of the system would impose significant procedural burdens" and "the system does not preserve anonymity," the introduction of this new system would supplement the insufficient functions of the current patent system and enhance patent quality and the reliability of the patent system.

In the surveys conducted in connection with this research study, many respondents have requested establishment of the following systems:

- A system that is less burdensome to petitioners in comparison with the invalidation trial system;
- A system that permits petitioners to submit opinions in response to the corrections and counter arguments presented by patentees; and
- A system that preserves the anonymity of petitioners from patentees.

The newly established system should be designed to reduce burdens on patentees in consideration of the above-listed points.

It should be noted that, in the domestic questionnaire survey, the domestic interview survey, and committee meetings, we have heard many people say that the discussions on the establishment of a system to ensure that stable patents are granted should cover not only the system used in the post-grant phase but also the system and practices designed to enhance examination quality in the pre-grant phase. This indicates that many people hope to see an improvement in examination quality as well as the establishment of a system designed to allow easy and early post-grant review of patent validity.

As described above, this research study has examined the use of the current patent invalidation trial system, the pre-grant and post-grant information submission systems, the former post-grant opposition system, and the issues faced by users, and has also analyzed the corresponding systems in other countries in

order to assess the necessity for the creation of an opportunity for post-grant patent validity review and the possible effects thereof. I hope that the results of this research study will contribute to the discussions on how to design a system to ensure that stable patents are granted in the future.

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