Grace Period under the Japanese Patent System and Movement to Harmonization

— Enhancement of Protection for Inventors Under the First-to-File System —

(Part 1)

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1 Introduction

Under the first-to-file system, novelty of invention is judged based on the filing date. An invention which is made known before filing a patent application cannot be patented because novelty is lost. In some cases, however, this principle may be quite severe for an inventor. In order to provide some relief to inventors, an exception for lack of novelty is allowed for disclosure of the invention by the inventor, only during a predetermined period prior to the filing date. This period is called the "Grace Period."

Japan, the United States and Europe each have the provision of a grace period included in their patent systems. However, the requirements for enjoying the benefit of the grace period differ. For inventors, it would be desirable that requirements for applying the grace period are common in the world. To this end, the discussion towards global harmonization of the grace period has been ongoing.

This article describes and discusses the grace period under the Japanese, U.S., and European patent systems, by comparing them with each other, and also introduces the movement to harmonize these patent systems.

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2 Japan

2.1 History

The grace period was adopted by the Japanese patent system by the Patent Act of 1891, which was enacted in reference to the U.S. patent system. The Patent Act upheld the grace period of two years from the disclosure of an invention, for the purpose of experimenting with the invention. By the Patent Act of 1891, the Japanese patent system adopted the first-to-invent system. However, unlike the U.S. patent system, the patent law made a provision that the novelty of invention was judged based on the filing date.

The provision of the grace period has been revised in accordance with amendments to the Patent Act. The Patent Act of 1891 was amended in order for Japan to join the Paris Convention, and the provision of the grace period was revised for conformity of the provisional protection for Expo exhibition, under Article 11 of the Paris Convention.

The Japanese patent system was shifted to the first-to-file system by the Patent Act of 1921. Under the principle of the first-to-file system, if an invention is disclosed before filing a patent application, the invention loses novelty regardless of who discloses the invention. However, with this principle, a patent application filed by those who misappropriated an invention from the true inventor may cause a problem. Even if the inventor files a patent application, after publication of the patent application of the misappropriated invention, the inventor cannot obtain a patent due to lack of novelty of the invention. To address this problem, the Patent Act of 1921 added the provision in which the grace period was also applicable to the disclosure of the invention against the inventor's will. This provision was in reference to the German patent system at the time, which theorized the first-to-file system. In addition, the Patent Act of 1921 unified the length of the grace period as six months for disclosure for experimentation, notification to an exposition, and disclosure against the inventor's will.

The current Patent Act was established in 1959 with significant revisions to the Patent Act of 1921. There was an opinion to abolish the grace period upon enacting the current Patent Act. However, the provision of the grace period applicable based on notification to an exposition could not be abolished because of Japan's duty as a signatory to the Paris Convention. Further, the provision of applying the grace period to a publication and the presentation to a specific scientific organization was provided. This measure was to relieve an inventor in cases where a researcher deficient in knowledge of the Patent Act discloses an invention before filing a patent application. Through such history, provisions about the grace period were drafted into Article 30 of the current Patent Act.

At the time of establishment of the present Patent Act, Article 30 limited the modes of disclosure by the inventor to which the grace period could be applied. This meant to limit the exception for the requirement of novelty within a minimum scope of bailout for the inventor, so as not to give an unexpected disadvantage to society. However, for enhancing the protection of inventors, the scope of disclosure which can benefit from the grace period was expanded by the revisions of the Patent Act in 1999 and 2011, which is described in detail in Sections 2.2 and 2.3. Articles 29(1) and 29(2) referred to in Article 30 are the provisions of novelty and inventive step of invention, respectively.

Article 30 of the current Patent Act is quoted in the following.

> *Article 30 (Exception to lack of novelty of invention)*
> *(1) In the case of an invention which has fallen under any of the items of Article 29(1) against the will of the person having the right to obtain a patent, such invention shall be deemed not have fallen under any of the items of Article 29(1) for the purposes of Article 29(1) and (2) for the invention claimed in a patent application which has been filed by the said person within six months from the date on which the invention first fell under any of those items.*

(2) In the case of an invention which has fallen under any of the items of Article 29(1) due to an act on the part of the person having the right to obtain the patent (excluding the invention which has fallen under any of the items of Article 29(1) by the reason of the fact that the invention has been published in the Patent Gazette, Utility Model Gazette, Design Gazette, Trademark Gazette or foreign official gazettes equivalent thereto), paragraph (1) shall also apply for the purposes of Article 29(1) and (2) to the invention claimed in the patent application which has been filed by such person within six months from the date on which the invention first fell under any of those items.

(3) Any person seeking the application of the preceding paragraphs shall submit to the Commissioner of the Patent Office, at the time of filing of the patent application, a document stating thereof and, within thirty days from the date of filing of the patent application, a document (in the next section, referred to as "proving document") proving the fact that the invention which has otherwise fallen under any of the items of Article 29(1) is an invention to which the preceding paragraphs may be applicable.

(4) Where, due to reasons beyond the control of the person submitting proving document, the person is unable to submit proving document within 30 days from the date of filing of the patent application, the person may submit proving document to the Commissioner of Patent Office within 14 days (where overseas resident, within two months) from the date on which the reasons cease, but not later than six months following the expiration of the said time limit.

2.2 Requirement and Effect of Grace Period under the Current Patent Act

Article 30(1) stipulates the application of a grace period to disclosure of a misappropriated invention, and Article 30(2) stipulates the application of a grace period to disclosure of an invention by the person having the right to obtain a patent, i.e., an inventor or assignee. In each case, the grace period has the length of six months, and is counted from the filing date of the Japanese patent application.

Article 30(3) stipulates that an application to the Patent Office is required in order to apply for a grace period to the disclosure of an invention by the inventor or assignee, and the concrete contents of the procedure. The inventor or assignee must submit a written document that states the applicant is seeking application of the grace period, simultaneously with filing the patent application to the Patent Office. Furthermore, he or she must also submit a document to prove the fact to the Patent Office within 30 days after the filing date of the patent application. The mandatory procedure for applying for the grace period is so that an unexpected disadvantage would not be given to a third party since the grace period provides a special benefit to an inventor. On the other hand, if an invention is disclosed by misappropriation, the procedure to the Japan Patent Office for application of the grace period is unnecessary.

Submission of the application for the grace period after expiry of the statutory period is not accepted in principle. However, Article 30(4) provides for the exception in which submission of the document may be postponed only within a certain period of time when there are special circumstances, such as force majeure.

Disclosure by the inventor before the filing date and enjoying the benefit of the grace period does not qualify the disclosure as prior art over an invention in the inventor's patent application. It should also be pointed out, that Article 30 does not create an exception to the first-to-file system. If a third party files or discloses the same invention within the grace period, i.e., the period from the disclosure by the inventor to the filing of the patent application, the original invention loses novelty and thereby, cannot be patented.

2.3 Protecting Inventions Including Disclosed Contents

The significance of the grace period is to enable an inventor/assignee to obtain a patent even if the inventor has disclosed the invention. Since enactment of the current patent act, when an invention is disclosed by the inventor the grace period has been applied only in cases where an invention according to a patent application is identical with the disclosed invention.

However, in an academic conference or a publication, contents of a presentation are likely to be limited due to the restriction of time or space. In the case where the contents disclosed before filing the patent application were only described in the specification, there was a possibility that the written requirements are not fully satisfied, although the grace period was applicable. In the further case, where a patent application is filed describing an invention improved or developed from the disclosed contents, there was a possibility that the disclosed content might be regarded as prior art to the invention.

In order to solve these problems, Article 30 was revised in 1999 so that the grace period can be applied to the case where the scope of the invention according to the patent application is wider than the disclosed contents. Even if the invention according to the patent application is developed beyond the disclosed contents, the disclosure does not constitute prior art to the invention when the patent application is filed within the grace period from the disclosure of the invention. By the revision of the Patent Act in 1999, an invention having a more general concept than the disclosed contents can enjoy the benefit of a grace period.

Under the patent systems of the U.S. and Europe, substantial similarity between the disclosed invention and the invention of the patent application is required to apply the grace period. The requirements for similarity of these two inventions for the grace period are not so strict under the Japanese patent system, as compared with the requirements in U.S. and European patent systems.

2.4 Dealing with Diversification of Mode of Disclosure

Compared with the time of the establishment of the current patent act, the modes of disclosing an invention have diversified in recent years. For this reason, the narrow scope of application of the grace period has come to be pointed out.

One of the reasons for the diversification of the modes of disclosure is the development of information and communications technology. Through the dissemination of the Internet, it became common that an inventor discloses the invention through the Internet. The grace period applies to the disclosure of an invention by the Internet by the revision of the Patent Act in 1999.

Other reasons for the diversified modes of disclosure are the diversification of research and development activities due to advanced and complicated technology. For financing or marketing, cases where an inventor has to disclose an invention before filing a patent application have increased. Furthermore, recently, because the concept of open innovation has been become familiar with research and development persons, an engineer often presents a technical idea to get cooperation from others, or refers to others' technical ideas in meetings such as workgroups and specialized communities.

The Patent Act was revised in 2011 to deal with such situations, and the grace period became applicable to the disclosure of an invention by the inventor regardless the mode of the disclosure. The convenience of a patent system can be enhanced and the possibility of obtaining the right to the disclosed invention can be increased for a university or research institute by applying a grace period to disclosure regardless of the kind of information transmission medium, or action.

On the point of the mode of the disclosure by the inventor not being limited, the applicable scope of the grace period under the Japanese patent system is similar to that of the U.S.

patent system and broader than that of the European patent system. However, there is a difference with regard to the applicable scope of the grace period between the Japanese and the U.S. patent systems when the invention is disclosed by a laying-open-of-application or patent publication. Under the U.S. patent system, a grace period can apply to the disclosure of an invention by the laying-open-of-application or a patent publication. In contrast, under the Japanese patent system, a grace period cannot be applied to disclosure by those publications because they are not considered active disclosures by the inventor[1].

2.5 Inventor's Bailout to Disclosure of Misappropriated Invention

If an invention derived from the true inventor via an illegal route is disclosed or a patent application based on the invention is filed, the true inventor can enjoy the benefit of the grace period without any special procedure, when the inventor files a patent application. However, if the grace period passes while the true inventor does not notice misappropriation of the invention, the inventor's patent application cannot be patented due to the disclosure or patent application by the misappropriating person.

With the recent wave of technology co-development, there are circumstances that an invention may be easily derived from the joint inventor, or it may be ambiguous whether the created invention is an achievement of the co-development. Under these circumstances, problems of misappropriation of invention tend to arise more easily. Previously, filing a patent application based on a misappropriated invention has been a reason for rejection and invalidation. However, there was a problem, in that there was no way to obtain the right to the invention, once rejection of the patent application or invalidation of the patent became conclusive.

By the revision of the Patent Act in 2011, new provision Article 74 provided the true inventor or assignee the right to claim transfer of the patent from a misappropriating person. Even if the invention is misappropriated, the true inventor can obtain a patent for his/her own invention without the inventor filing a new patent application. By this provision, it is possible to address the problem of misappropriation which cannot be relieved by the grace period. The provision can be interpreted as allowing the true inventor the right to claim the patent from a misappropriating person.

In the patent systems of Germany, the United Kingdom, and France, the true inventor already had the right to claim the patent from a misappropriating person without filing a patent application. In the U.S., derivation proceedings, which determine the true inventor, are provided as a relief system over misappropriate patent application. The derivation proceeding, however, is different from the regaining proceedings in Japan and European countries, in that filing a patent application by the true inventor is required.

2.6 Brief Summary

In Japan, the requirements for the types of disclosure to which a grace period can be applied were eased by the Patent Act revisions of 1999 and 2011. However, other requirements, such as the length of the grace period, have not been changed since the establishment of the current Patent Act. This is to avoid increase in the burden of monitoring by a third party or the risk of loss of novelty by the disclosure by other persons. It can be stated that the Japanese grace period strengthens the protection of the inventor while keeping the principle of novelty of invention under the first-to-file system.

3 United States

3.1 Grace Period under the First-to- Invent System

The U.S. had been a country of a first-to-invent system for over 200 years, since the establishment of the Patent Act in 1793. Under the first-to-invent system, novelty of invention

can be secured before filing a patent application, which may create the problem of intentionally delaying to file a patent application.

By the revision of the Patent Act in 1839, the U.S. patent system introduced the grace period. Under the Patent Act of 1839, the grace period was two years before the filing date, and a patent was not deemed invalid by the invention's purchase, sale, or open implementation within the grace period. This provision meant correcting a first-to-invent system partially and urging early disclosure of invention. By subsequent court decision, it was confirmed that the patent of the first inventor was not deemed invalid by a third party's action within the grace period, whereas the invention cannot be patented by open implementation before the grace period. The grace period, which was for two years in the beginning, was shortened to one year by the revision of the Patent Act in 1939.

By the revision of the Patent Act in 1952, provisions with regard to novelty of invention were stipulated. Section 102(a) stipulated that novelty of invention was determined at the time of invention. Section 102(b), which provided an exception to the provision of Section 102(a), stipulated that an invention cannot be patented if the invention was patented or described in a printed publication in the United States or a foreign country, or in public use or on sale in the United States, more than one year prior to date of the application for patent in the United States.

Under the first-to-invent system, an invention made by the first inventor does not lose novelty, even if a third party discloses the same invention during the grace period. The invention therefore has novelty regardless of whether the third party is a misappropriating person or a person completing the invention by his/her own effort.

3.2 Grace Period under AIA

With the revised Patent Act in 2011 (AIA: America Invents Act), the United States Patent system introduced the first-to-file system. Section 102 of the previous Patent Act was drastically amended to the article providing the first-to-file system. Under new Section 102(a), the standard date of novelty of invention is the effective filing date. The effective filing date is the priority date if the U.S. application claims priority under the Paris Convention. Otherwise the effective filing date is a filing date of a patent application in the U.S.

Section 102(b) was also revised by the AIA. Section 102(b)(1) stipulates the grace period as one year prior to the effective filing date. If a U.S. patent application claims priority based on the Paris Convention, the grace period is a one year prior to the convention date.

Section 102(b)(1)(B) is particularly important. Once the inventor discloses the invention within the grace period, novelty of invention is not denied regardless the disclosure by a third party thereafter. The grace period under the AIA can protect the invention's novelty from the disclosure by, not only the inventor but also another person. In the debate at the U.S. Congress, the meaning of Section 102(b)(1)(B) was explained in the following.

> *"Under new section 102(b)(1)(B), once the U.S. inventor discloses his invention, no subsequent prior art can defeat the invention. The U.S. inventor does not need to prove that the third party disclosures following his own disclosures are derived from him. He can thus take full advantage of the grace period and disclose his invention in academic papers and at trade shows without worrying that such disclosures will lead to theft or fraudulent invalidation of his patent[2]."*

Since the time of the first-to-invent system, the grace period has been applied to protect universities, small companies, or persons. The U.S. patent system has shifted to the first-to-file system by the AIA, however, the grace period still has the characteristics of the first-to-invent system. The AIA defines the new patent system as "First Inventor to File" and the provision of Section 102(b)(1)(B) specify the new patent system.

3.3 Requirement for Application of the Grace Period

Under the U.S. Patent system, the grace period is considered a right which an inventor naturally has, and therefore application to the USPTO is unnecessary. Furthermore, the mode of disclosure to which the grace period can be applied is not restricted. According to the MPEP (Manual of Patent Examining Procedure), the term of "disclosure" used in Section 102(b) is a generic expression intended to encompass the documents and activities enumerated in AIA 35 U.S.C. 102(a) (i.e., being patented, described in a printed publication, in public use, on sale, or otherwise available to the public, or being described in a U.S. patent, U.S. patent application publication, or WIPO published application). To comply with old Section 102(b), the grace period can be applied to disclosure in a patent application or patent.

The claimed invention must be substantially the same as the disclosed invention. However, the mode of disclosure by the inventor is not required to be the same as the mode of disclosure of the intervening grace period disclosure (e.g., patenting, publication, public use, sale activity). There is also no requirement that the disclosure by the inventor or a joint inventor be a verbatim or ipsissimis verbis disclosure of the intervening grace period disclosure (MPEP §2153.02).

3.4 Introduction of Derivation Proceedings

Under the AIA, the grace period starts from the disclosure of the invention by the inventor. If the inventor does not disclose the invention prior to filing a patent application, the case where the invention was disclosed earlier than the effective date of the patent application through misappropriation of the invention, the inventor cannot obtain a patent, in accordance with the principle of the first-to-file system.

To provide relief to the true inventor in cases of misappropriation, the AIA introduced derivation proceedings, which replace the conventional interference. If the claimed invention in the first application or patent was misappropriated, the true inventor or his assignee can request the derivation proceedings before the USPTO, under the condition that he/she files a patent application. In the case where the claimed invention according to the first patent application or the patent is judged as misappropriated, the named inventor, described in the misappropriated patent application or patent, can be corrected from the misappropriating person to the true inventor.

The period when the derivation proceedings can be requested is one year from the disclosure of the misappropriated invention, so that the length of the period is the same as that of the grace period. Derivation proceedings can be considered as filling the deficiency of the protection by the grace period, and harmonizing with the grace period under the patent systems in Japan and Europe in the point of enabling the true inventor to be relieved from the disclosure by misappropriation by using proceedings within a certain period.

Notes:

1) **https://www.jpo.go.jp/shiryou/kijun/kijun2/pdf/reigai/30jo_qa_shu.pdf**

2) **CONGRESSIONAL RECORD—SENATE 5320, September 6, 2011 (http://www.uspto.gov/aia_implementation/20110906-kyl_rmrks_s5319.pdf)**

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