

Comparative Research on the Patent Systems of Japan, the United States and Europe

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Patent systems have faced an era of significant change over the last 40 years. The enforcement of the European Patent Convention in 1977 and the Patent Cooperation Treaty in 1978 (hereinafter referred to respectively as the “EPC” and “PCT”) opened the path to globalization in the field of intellectual property rights.

In 1982, the system of Court of Appeals for the Federal Circuit (CAFC) was established in the U.S.—a country where common laws are considered the basis of trials—and this dramatically contributed to the pro-patent policy. One of the background factors to this situation is that of trade issues, as is seen in the enforcement of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1995.

In line with these trends, important revisions of patent acts were executed in the three regions of Japan, the U.S. and Europe. These include the revision of many provisions of the Patent Act in Japan, the enforcement of the revised EPC (EPC 2000) in Europe, and the transferal of the patent system in the U.S. from the first-to-invent to the first-to-file system, along with the establishment of the Leahy-Smith America Invents Act (AIA) in 2011 (effective dates vary among the revised provisions).

The Patent Law Treaty (PLT) came into force in 2005 to internationally harmonize and streamline procedures for filing. Japan acceded to the PLT on March 11, 2016, and put the revised Patent Act into force on April 1, 2016. The U.S. put the AIA into force on December 18, 2013.

These efforts seem to have dramatically contributed to the harmonization initiative, but differences are still seen between Japan, the US and Europe.

This paper will present such differences in the patent systems and their operation between Japan, the U.S. and Europe.

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I. Patentability

1. Definition of inventions and statutory inventions

Patentable “inventions” are subject to certain limitations under the provisions that define patents and exclusions from protection, or under the predetermined operation. Rule 39 of the PCT shows a list of subject matters for which no International Searching Authority is required to search an international application, e.g., scientific and mathematical theories. Actually, patent examination, appeals and trials, and litigations often focus on the issue of whether or not technologies related to computer software or biological technology, in particular, are covered by the definition of “invention.”

<JP>

The purpose of Patent Act is, through promoting the protection and the utilization of inventions, to encourage inventions, and thereby to contribute to the development of industry (§1). and “Invention” in this Act means the highly advanced creation of technical ideas utilizing the laws of nature (§2). §1 and §2 are not requirements for patentability, but §29, a provision stipulating requirements for patentability, requires a claimed invention to utilize the laws of nature, provide novelty and an inventive step, and to be industrially applicable as patentability (§29).

An invention of a process for surgery, therapy, or diagnosis of humans should be rejected due to the lack of industrial applicability. As such invention is patentable in the U.S., applicants need to pay attention when they intend to file an application for such invention in Japan based on their applications in the U.S. A method for controlling the operation of a medical device or a method of analyzing samples extracted from the human body, etc. are patentable (GL III 1 3.2.1).

Arts against the law of nature, e.g., discovery of a law of nature or perpetual motion, or those not utilizing a law of nature, e.g., game rules or business methods per se, do not fall under the category of “inventions,” and are rejected (GL III 1 2.1.4).

Patentability for an invention related to computer software is determined based on whether or not the information processing by

the software is specifically realized using any hardware resources (GL Appendix B 1 2.1.1.2).

(Purpose)

§1 The purpose of this Act is, through promoting the protection and the utilization of inventions, to encourage inventions, and thereby to contribute to the development of industry.

(Definitions)

§2 (1) "Invention" in this Act means the highly advanced creation of technical ideas utilizing the laws of nature.

(Conditions for Patentability)

§29 (1) An inventor of an invention that is industrially applicable may be entitled to obtain a patent for the said invention, except for the following:

<U.S.>

The term "invention" is defined to be those invented or discovered (§100). Such inventions should fall under one of the four categories of processes, machines, manufacture or compositions, and should be useful (§101).

Common laws are deemed to be important sources of the law, and are applied as binding rules of law.

In the Chakrabarty case (1980), which is still emphasized as a precedent case, the U.S. Supreme Court ruled that laws of nature, physical phenomena, and abstract ideas are not patentable (MPEP 2105 II B).

The issue of patent eligibility has been disputed in courts, particularly concerning inventions related to biotechnology or computer software. In recent years, the U.S. Supreme Court successively concluded and ruled that the given inventions do not satisfy the requirements in §101, attracting strong public interest in the cases.

In the Mayo v. Prometheus case (2012), the U.S. Supreme Court ruled that the given invention merely announces a law of nature (relationship between the metabolite density and the therapeutic

effects of medicines) to doctors. In the *AMP v. Myriad* case (2013), the Supreme Court judged that isolated genes are not deemed to be converted DNA occurring in nature.

In the *Bilski* case (2010), the Supreme Court concluded that the business method of instructing how to hedge risk in product price changes is an abstract idea. In the *Alice Corp. v. CLS Bank* case (2014), the Supreme Court concluded that the invention for reducing risk in financial transactions is an abstract idea.

Following these decisions, other courts and the USPTO have been making strict decisions on patent eligibility. The USPTO released guidelines called “2014 Interim Guidance on Subject Matter Eligibility,” providing the rule that examiners should judge patent eligibility while bearing in mind the following question: “[D]oes the claim recite additional elements that amount to significantly more than the judicial exception?”

Computer program claims are not allowed.

Inventions should be useful. Requirements of usefulness are recognized as those corresponding to industrial applicability in JP and EP.

Unlike JP or EP, therapeutic methods are patentable in the U.S., while medical practices by doctors are not infringements of patent rights (§287 (c)).

§100 Definitions.

When used in this title unless the context otherwise indicates -

(a) The term “invention “means invention or discovery.

§101 Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

<The Judicial Exceptions>

MPEP 2105 II B

The laws of nature, physical phenomena and abstract ideas are not patentable subject matter.

<EP>

EP does not stipulate the definition of inventions, but released in the EPC a list of arts not be regarded as inventions, such as discoveries, scientific theories, mathematical methods, aesthetic creations, performing mental acts, and programs for computers (§52 (2)). Inventions shall be considered as susceptible of industrial application (§52 (1), §57).

In addition, EP stipulates that aesthetic creations not patentable. Like Japan, treatment or diagnostic methods are excluded from patentable arts (§ 53 (c)).

Inventions shall provide technical features (R43 (1)). EP determines the patentability of inventions related to software based on whether or not the invention provides technical features, and this is a higher level compared to operation in Japan and the U.S. For example, in the trial case of T914/02 (General Electric), the Appeal Division ruled that “[i]t consists in a series of steps which may be purely abstract,” concerning “[a] method for designing a core loading arrangement for loading nuclear reactor fuel bundles into a reactor core to optimize an amount of energy.” In addition, patentability is determined excluding un-technological matters (inventive step).

§52 Patentable inventions

- (1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step, and are susceptible of industrial application.
- (2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:
 - (a) discoveries, scientific theories and mathematical methods;
 - (b) aesthetic creations;
 - (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
 - (d) presentations of information.

§53 Exceptions to patentability

European patents shall not be granted in respect of:

- (a) inventions, the commercial exploitation of which would be

contrary to “ordre public” or morality; ...

(b) plant or animal varieties or essentially biological processes for the production of plants or animals; this provision shall not apply to microbiological processes or the products thereof;

(c) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body; this provision shall not apply to products, in particular substances or compositions, for use in any of these methods.

§57 Industrial application

An invention shall be considered as susceptible of industrial application if it can be made or used in any kind of industry, including agriculture.

2. Novelty

<JP>

Patentable inventions shall be novel.

Publicly-known facts most frequently used for refusing the novelty of inventions are distributed publications (§29 (1)(iii)). In particular, patent gazettes with explicit publication dates are most utilized.

Where there is a difference between the claimed inventions and the prior art, the examiner determines that the claimed invention has novelty. Where there is no difference, the examiner determines that the claimed invention lacks novelty. (GL III 2-1 2) “Prior art disclosed in publications” mean prior art recognized on the basis of the descriptions in the publications or equivalents of such descriptions. Equivalents of descriptions in the publications mean descriptions that a person skilled in the art could derive from the description in the publications by considering the common general knowledge at the time of filing (GL III 2-3 3.1.1).

Such facts for refusing the novelty of inventions include “inventions that were publicly known” and “inventions that were publicly worked.” (§29 (1)(i), (ii)). The “inventions that were publicly known” include inventions presented at a lectures, etc. The “inventions that were publicly worked” included the fact that a device related to the invention was operated before an audience (GL III 2-3 3.1.3, 3.1.4). Both of the cases include inventions that were publicly known or worked not only in Japan, but also in overseas countries.

When a prior art is disclosed as a generic concept, a more specific concept of the art is, in principle, not deemed to be disclosed. When a prior art is disclosed as a more specific concept, an invention disclosing a generic concept may be generally recognized as a cited invention (GL III 2-3 3.2).

Concerning claims providing selective matters, examiners may select only one of the selective matters, assume it as a matter to define the invention involving the selective matters, and compare the claimed and the cited inventions while bearing in mind the assumption (GL III 2-3 4.1.1).

If the product with limitation of use means the product specifically suitable for its use, the examiner recognizes that the product has

structure, etc. that the limitation of use means. On the other hand, if the product with limitation of use application does not mean the product specifically suitable for the use application, the examiner should not interpret the limitation of use application to specify the product (GL III 2-4 3.1.1). Inventions of medical use aiming at the application to certain diseases based on the property of chemical compounds or other substances have novelty in the chemical compounds or other substances (GL Appendix B 3 2-2-2).

Where a claim includes a statement which specifies a product by a manufacturing process, the examiner construes the statement as a finally-obtained product itself (GL III 2-4 5.1).

(Conditions for Patentability)

§29(1) An inventor of an invention that is industrially applicable may be entitled to obtain a patent for the said invention, except for the following:

- (i) inventions that were publicly known in Japan or a foreign country, prior to the filing of the patent application;
- (ii) inventions that were publicly worked in Japan or a foreign country, prior to the filing of the patent application; or
- (iii) inventions that were described in a distributed publication, or inventions that were made publicly available through an electric telecommunication line in Japan or a foreign country, prior to the filing of the patent application.

<U.S.>

The revision of the patent laws (hereinafter referred to as the “AIA”) in 2011 changed the U.S. patent system from the first-to-invent to the first-to-file system, and disclosed publications that were used for refusing the novelty of inventions were selected based not on the date of invention, but on the effective filing date (filing date in the U.S. or priority date) as a criterion (§102). In other words, inventions disclosed before such effective filing date through publications, public use or selling would be subject to the lack of novelty, in principle (targeting applications filed after March 16, 2013, as an effective filing date). In line with the transfer to the first-to-file system, the U.S. abolished the interference proceedings and introduced the derivation proceedings through which inventors

are determined (§135).

Moreover, under the former patent laws, the disclosure through public use or selling was limited to domestic areas, but under the AIA, such areas have been broadened to include the rest of the world.

A species will anticipate a claim to a genus. A generic disclosure will anticipate a claimed species covered by that disclosure when the species can be “at once envisaged” from the disclosure (MPEP 2131.02 I, III).

Prior art which teaches a range overlapping, approaching, or touching the claimed range anticipates if the prior art range discloses the claimed range with “sufficient specificity” (MPEP 2131.03 II).

The inherent teaching of a prior art reference arises both in the context of anticipation and obviousness (MPEP 2112).

Even if the prior art device performs all the functions recited in the claim, the prior art cannot anticipate the claim if there is any structural difference (MPEP 2114 III).

During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference between the claimed invention and the prior art. If so, the recitation serves to limit the claim (MPEP 2111.02 II). Unlike JP or EP, medical-use inventions shall be refused for the lack of novelty due to publicly-known substances, but they are protected as a method to treat the human body (MPEP 2112.02).

Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. (MPEP 2113) In determining infringement, the process terms limit product-by-process claims (Abbott v. Sandoz (CAFC en banc, 2009)).

§102 Conditions for patentability; novelty.

(a) NOVELTY; PRIOR ART.—A person shall be entitled to a patent unless—

(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; ...

<EP>

An invention shall be considered to be new if it does not form part of the state of the art. The “state of the art” shall be held to comprise “everything made available to the public by means of a written or oral description, by use, or in any other way.” (§54(1), (2)). There are no restrictions whatever as to the geographical location where, or the language or manner in which, the relevant information was made available to the public. (GL G IV 1)

A document takes away the novelty of any claimed subject-matter derivable directly and unambiguously from that document. For example, a disclosure of the use of rubber takes away the novelty of the use of an elastic material. (GL G VI 2)

It should be borne in mind that a generic disclosure does not usually take away the novelty of any specific example falling within the terms of that disclosure, but that a specific disclosure does take away the novelty of a generic claim embracing that disclosure, (e.g., a disclosure of copper takes away the novelty of metal as a generic concept). (GL G VI 5)

A sub-range selected from a broader numerical range of the prior art is considered novel, if each of the following three criteria is satisfied:

- (a) the selected sub-range is narrow compared to the known range;
- (b) the selected sub-range is sufficiently far- removed from any specific examples disclosed in the prior art and from the end-points of the known range;
- (c) the selected range is not an arbitrary specimen of the prior art, i.e. not a mere embodiment of the prior art, but another invention (purposive selection, new technical teaching) (GL G VI 8).

Concerning the claims wherein the use of the invention is described, non-distinctive characteristics of a particular intended use should be disregarded. However, characteristics that are not explicitly stated, but are implied by the particular use, should be taken into account (GL G VI 7). Under the EPC 2000, the second or

further medical use of known pharmaceutical products, as well as first medical use, have become patentable (§54(5), GL G VI 7.1).

Claims for products defined in terms of a process of manufacture are allowable only if the products as such fulfill the requirements for patentability. A product is not rendered novel merely by the fact that it is produced by means of a new process (GL F IV 4.12). In addition, if the subject-matter of the European patent is a process, the protection conferred by the patent shall extend to the products directly obtained by such process (§64(2)).

§54 Novelty

(1) An invention shall be considered to be new if it does not form part of the state of the art.

(2) The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.

(3) Additionally, the content of European patent applications as filed, the dates of filing of which are prior to the date referred to in paragraph 2 and which were published on or after that date, shall be considered as comprised in the state of the art.

(4) Paragraphs 2 and 3 shall not exclude the patentability of any substance or composition, comprised in the state of the art, for use in a method referred to in Article 53(c), provided that its use for any such method is not comprised in the state of the art.

(5) Paragraphs 2 and 3 shall also not exclude the patentability of any substance or composition referred to in paragraph 4 for any specific use in a method referred to in Article 53(c), provided that such use is not comprised in the state of the art.

3. Non-prejudicial disclosures (grace period)

Non-prejudicial disclosures triggered controversies regarding the Substantial Patent Law Treaty (SPLT), and many differences are still seen in this issue between JP, the U.S. and EP.

<JP>

An invention that has been made public by a person with the right to obtain a patent (inventor or successor) shall not lose the novelty (and inventive steps) of the claimed invention if the person files an application of the invention within six months from the date on which the invention was made public for the first time (§ 30(2)). However, no exception to lack of novelty of invention is allowed for patent and other gazettes, which is different from those in the U.S. Moreover, to seek the application of the exception, such person should submit a written document requesting such exception when filing the patent application (§30(3)), which is also different from the U.S.

An invention that has been made public against the will of a person with the right to obtain a patent will not lose the novelty if the person files an application of the invention within six months from the date on which the invention was made public for the first time (§30 (1)).

(Exception to lack of novelty of invention)

Article 30 (1) In the case of an invention which that has fallen under any of the items of Article 29(1) against the will of the person having with 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 that 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 that has fallen under any of the items of Article 29(1) by the reason caused by the person having with the right to obtain a patent (excluding those fallen under any of the items of Article 29(1) due to the publication of the invention in the gazette of patent, utility

model, industrial design or trademark), the preceding paragraph 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 the said person within six months from the date on which the invention first fell under any of those paragraphs.

<U.S.>

Under the AIA, in addition to the disclosures related to an inventor, the disclosures by a third party made during the period between the disclosure and the application filing by the inventor also fall under the grace periods (§102(b)(1)(B)). Based on this, the U.S. patent system, which is the first-to-file system, is also called the first inventor to file or first-to-disclose system. In JP, an inventor loses novelty for his/her claimed invention if a third party independently invented the same art as the inventor, and disclosed it during the period between the disclosure and application filing by the inventor.

In the U.S., unlike JP or EP, an inventor is not required to complete any filing procedure. When any claim of an application or a patent under reexamination is rejected, the applicant or patent owner may submit an appropriate affidavit or declaration to disqualify a disclosure as prior art by establishing that the subject matter disclosed had been publicly disclosed by the inventor or a joint inventor, or another who obtained the subject matter (R1.130(b)).

This rule regarding disclosure also covers patent gazettes (MPEP 717.01 III(A)).

In JP and EP, the grace period is six months. The target disclosures for the period are different from those in the U.S. It should be noted that disclosures in the U.S. are not always covered by a grace period in JP or EP.

§102 (b) EXCEPTIONS.—

(1) DISCLOSURES MADE 1 YEAR OR LESS BEFORE THE EFFECTIVE FILING DATE OF THE CLAIMED INVENTION.—A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior

art to the claimed invention under subsection (a)(1) if—
(A) the disclosure was made by the inventor or joint inventor, or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or
(B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

<EP>

A disclosure of the invention shall not be taken into consideration for novelty if it occurred no earlier than six months preceding the filing, but this exception is limited to the cases involved in abuse of right and official international exhibition (§55(1)). Abuse of right includes a disclosure against the will of the inventor, for example.

To enjoy this exception, when filing an application, an applicant should describe the fact that the invention has been displayed in an international exhibition, and submit a supporting certificate within four months (§55(2), R25).

As seen above, as the range of a grace period is limited, many disclosures covered by the grace period in JP and the U.S. are not allowed in EP. Accordingly, it is desirable for applicants to file an application before the disclosure of their invention.

§55 Non-prejudicial disclosures

(1) For the application of Article 54, a disclosure of the invention shall not be taken into consideration if it occurred no earlier than six months preceding the filing of the European patent application, and if it was due to, or in consequence of:

(a) an evident abuse in relation to the applicant or his legal predecessor, or

(b) the fact that the applicant or his legal predecessor has displayed the invention at an official, or officially recognised, international exhibition falling within the terms of the Convention on international exhibitions signed at Paris on 22 November 1928 and last revised on 30 November 1972.

4. Prior application

<JP>

An inventor may not obtain a patent for an invention in the case where a third party invented the same art as the inventor and described it in a prior application which is not disclosed (§29-2). In other words, when a prior application is filed before the filing date of the claimed invention by the inventor and is disclosed after the filing date of the application concerned, and when the specification of the prior application describes the same invention as that of the claimed invention by the inventor, the inventor may not obtain a patent for the claimed invention. However, this rule is not applied to the case where an inventor or an applicant is the same in the cases of the application concerned and the prior application. This rule is considered to be a broadened interpretation of a prior art effect, whereas similar rules in the U.S. and EP are explained as a part of novelty.

Unlike novelty, regardless of differences found between claimed and cited inventions, the claimed invention is rejected in cases where both inventions are substantially identical. Substantial identity referred to herein means a case where a difference between the invention claimed in the application concerned and the cited invention is a very minor difference (an addition, deletion, conversion, etc., of common general knowledge or commonly-used art, which does not yield any new effect) in embodying means for resolving a problem (GL III 3 3.2).

§ 29-2 Where an invention claimed in a patent application is identical with an invention...(excluding an invention...made by the inventor of the invention claimed in the said patent application) disclosed in the description, scope of claims or drawings... originally attached to the written application of another application for a patent... which has been filed prior to the date of filing of the said patent application and published after the filing of the said patent application in the patent gazette..., a patent shall not be granted for such an invention...; provided, however, that this shall not apply where, at the time of the filing of the said patent application,

the applicant of the said patent application and the applicant of the other application for a patent...are the same person.

<U.S.>

When an application describes the third-party inventor, which is filed before the effective filing date of the application concerned, and the invention of the application is described in an application whose gazette or patent gazette is already issued, the invention lacks novelty (§102(a)(2)).

However, this provision is not applied in the case where two applications are subject to an obligation of assignment to the same person or one company. Moreover, this provision is not applied either in the case where an invention of the prior application is obtained from the inventor of the subsequent application (§102(b)(2)).

§102 Conditions for patentability; novelty.

(a) NOVELTY; PRIOR ART.—A person shall be entitled to a patent unless—:

(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

(b) EXCEPTIONS.—

...

(2) DISCLOSURES APPEARING IN APPLICATIONS AND PATENTS.—A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if—

(A) the subject matter disclosed was obtained directly or indirectly from the inventor or a joint inventor;

...

(C) the subject matter disclosed and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.

<EP>

The content of an application filed before the filing of the application concerned and published after the filing of the application concerned is considered as prior arts (§54(3)). As a system wherein all patent applications shall be deemed to be designated in the request for grant of a European patent started, prior arts concerning all designated countries have become effective (§79(1)).

This provision is applied whether or not the inventor and the applicant are the same, which is a significant difference from those in JP and the U.S. (self-collision), generating a large point of contention concerning the SPLT.

§54 Novelty

(1) An invention shall be considered to be new if it does not form part of the state of the art.

...

(3) Additionally, the content of European patent applications as filed, the dates of filing of which are prior to the date referred to in paragraph 2 and which were published on or after that date, shall be considered as comprised in the state of the art.

§79 Designation of Contracting States

(1) All the Contracting States party to this Convention at the time of filing of the European patent application shall be deemed to be designated in the request for grant of a European patent.

5. Double patenting

<JP>

Based on the reason that it should not be allowed to grant two or more rights to one invention, requirements for double patenting are stipulated.

Where two or more patent applications claiming identical inventions have been filed on different dates, only the applicant who filed the patent application on the earliest date is entitled to obtain a patent for the invention claimed. In cases where such applicants have filed identical inventions on the same date, only the applicant that reached an agreement through consultation is entitled to obtain a patent for the invention claimed (§39(1)(2)). This provision is also applied to cases where an inventor and an applicant are the same.

As the filing date of a divisional application is deemed to be the same as that of its original application, this provision is often applied to such original application and its divisional application. When an invention A and an invention B are applied on the same day and are the same in the both cases of (i) and (ii) provided below, the examiner shall identify the two invention;

(i) Where the invention A is presumed to be an earlier application, and where the invention B is presumed to be a later application

(ii) Where the invention B is presumed to be an earlier application, and where the invention A is presumed to be a later application (GL III 4 3.2.2). Accordingly, in the case where one of the constitutions of the invention provides a superior concept while the other provides a generic concept, the constitutions are regularly not considered identical.

(Prior application)

§39 (1) Where two or more patent applications claiming identical inventions have been filed on different dates, only the applicant who filed the patent application on the earliest date shall be entitled to obtain a patent for the invention claimed.

(2) Where two or more patent applications claiming identical inventions have been filed on the same date, only one applicant, who was selected by consultations between the

applicants who filed the said applications, shall be entitled to obtain a patent for the invention claimed. Where no agreement is reached by consultations, or consultations are unable to be held, none of the applicants shall be entitled to obtain a patent for the invention claimed.

<U.S.>

The doctrine of double patenting seeks to prevent the unjustified extension of patent exclusivity beyond the term of a patent, and the possibility of multiple suits against an accused infringer by different assignees of patents (MPEP 804).

There are generally two types of double patenting rejections. One is the “same invention” type double patenting rejection based on 35 U.S.C. 101, which states in the singular that an inventor “may obtain a patent.” The second is the “nonstatutory-type” double patenting rejection based on a judicially created doctrine grounded in public policy, and which is primarily intended to prevent prolongation of the patent term. The submission of a terminal disclaimer in compliance with 37 CFR 1.321(b) to overcome a double patenting rejection (§253, MPEP 804) . Before consideration can be given to the issue of double patenting, two or more patents or applications must have at least one common inventor, common applicant (MPEP 804).

§101 Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, (subject to the conditions and requirements of this title).

§253 Disclaimer

(b) ADDITIONAL DISCLAIMER OR DEDICATION. —In the manner set forth in subsection (a), any patentee or applicant may disclaim or dedicate to the public the entire term, or any terminal part of the term, of the patent granted or to be granted.

<EP>

As stated above, when a claimed invention is described in a specification of the prior application, the invention is rejected under §54(3) (self-collision) regardless of whether or not the inventor and the applicant are identical.

If two or more persons have made an invention independently of each other, the right to a patent therefor belongs to the person whose patent application has the earliest date of filing (§60(2)).

The EPC does not deal explicitly with the case of co-pending European applications of the same effective date filed by the same applicant. One of the applications is granted, the other(s) will be refused under Art. 97(2) in conjunction with Art. 125. If the claims of those applications are merely partially overlapping, no objection should be raised. Should two applications of the same effective date be received from two different applicants, each must be allowed to proceed as though the other did not exist (GL G IV 5.4).

§60 Right to a European patent

(2) If two or more persons have made an invention independently of each other, the right to a European patent therefor shall belong to the person whose European patent application has the earliest date of filing, provided that this first application has been published.

§97 Grant or refusal

(2) If the Examining Division is of the opinion that the European patent application or the invention to which it relates does not meet the requirements of this Convention, it shall refuse the application unless this Convention provides for a different legal consequence.

6. Inventive step (non-obviousness)

<JP>

If a person ordinarily skilled in the art to which the claimed invention belongs would be able to easily make the invention based on publicly-known arts, a patent shall not be granted for the claimed invention.

It is determined whether or not there is motivation for applying the secondary prior art to the primary prior art by comprehensively considering the following points of view (1) to (4);

- (1) Relation of technical fields
- (2) Similarity of problems to be solved
- (3) Similarity of operations or functions
- (4) Suggestions shown in the content of prior art (GL III 2-2 3.1.1).

Advantageous effects over the prior art are factors in support of the existence of an inventive step (GL III 2-2 3.2.1) .

The examiner should take note of the avoidance of hindsight such as the following case (i) or (ii) due to determining an inventive step after acquiring knowledge of the claimed inventions.

- (i) The examiner assumes that a person skilled in the art would have easily arrived at the claimed invention.
- (ii) The examiner understands that a cited invention is approximate to the claimed invention (GL III 2-2 3.3) .

The factor which obstructs application of the secondary prior art to the primary prior art (obstructive factor) supports the existence of an inventive step (GL III 2-2 3.2.2) .

Where there is a statement about specifying an invention by use of a numerical limitation in a claim, the claimed invention usually has no inventive step when a point of difference between a main cited prior art and the claimed invention lies solely in the numerical limitation. The reason for this is that experimentally optimizing a range of numerals or making the same appropriate can be said to be an exercise of ordinary creative activity of a person skilled in the art. However, when the claimed invention yields an effect of comparison with the cited prior art fulfilling all requirements (i) to (iii) provided below, the examiner determines that such an invention for limiting numerical values has an inventive step.

- (i) The effect is advantageous within a limited range of numerical

values although it is not disclosed in evidence of the prior art.

(ii) The effect is different in nature from an effect yielded by the prior art, or remarkably superior although it is the same as the effect of the prior art.

(iii) The effect is not one which can be predicted by a person skilled in the art from the state of the art as of filing. (GL III 2-4 6.2)

(Conditions for Patentability)

§29 (2) Where, prior to the filing of the patent application, a person ordinarily skilled in the art of the invention would have been able to easily make the invention based on an invention prescribed in any of the items of the preceding paragraph, a patent shall not be granted for such an invention notwithstanding the preceding paragraph.

<U.S.>

If a difference between a claimed invention and a prior art is obvious for a person skilled in the art, a patent shall not be granted to the claimed invention.

In the KSR case (2007), in light of the criticism that CAFC set a significantly low criterion regarding non-obviousness, the Supreme Court ruled that such obviousness may be determined considering the common general technical knowledge of a person skilled in the art even if no teaching, suggestion, or motivation is found in prior arts (TSM test ; see the following (G)).

Impermissible hindsight must be avoided. (MPEP 2142)

Exemplary rationales that may support a conclusion of obviousness include:

(A) Combining prior art elements according to known methods to yield predictable results;

(B) Simple substitution of one known element for another to obtain predictable results;

(C) Use of known technique to improve similar devices (methods, or products) in the same way;

(D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

(E) “Obvious to try”- choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. (MPEP 2141 III)

§103 Conditions for patentability; non-obvious subject matter
A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

<EP>

In order to assess inventive step in an objective and predictable manner, the so-called “problem-and-solution approach” should be applied. In the problem-and-solution approach, there are three main stages:

- (i) determining the “closest prior art,”
- (ii) establishing the “objective technical problem” to be solved, and
- (iii) considering whether or not the claimed invention, starting from the closest prior art and the objective technical problem, would have been obvious to the skilled person (GL G VII 5).

In the stage (iii), the point is not whether the skilled person could have arrived at the invention, but whether he would have done so (GL G VII 5.3).

The examiner should be wary of ex post facto analysis (GL G VII 8).

The guidelines show a list of indices as follows for the requirements of inventive steps: (1) Application of known measures (2) Obvious combination of features (3) Obvious selection (4)

Overcoming a technical prejudice (GL G Annex).

§56 Inventive step

An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art. If the state of the art also includes documents within the meaning of Article 54, paragraph 3, these documents shall not be considered in deciding whether there has been an inventive step.

7. Specification

<JP>

The statement of claims should be clear and the invention for which a patent is sought should be stated in the detailed description of the invention (§36(6)(i), (ii)). These requirements were relaxed in the revised guidelines in 2011.

When a claimed invention exceeds the extent of disclosure in the detailed description of the invention in terms of the problem to be solved by the invention, the claimed invention violates the support requirement (GL II 2-2 2.1(3)).

The statement of claims may be stated in a one-part or two-part claim.

The inventions are unclear in the case where it is evident that a matter specifying the invention stated by a function or a characteristic, etc. is not sufficiently specified from a technical perspective (GL II 2-3 4.1.1(2)).

Concerning a product-by-process claim, the Supreme Court ruled that claims satisfy the requirements of clarity only when it is impossible to directly specify the structure or property of the product, or when there is a condition where the product is far from practical (2015).

The statement of the detailed explanation of the invention shall be clear and sufficient as to enable any person ordinarily skilled in the art to which the invention pertains to work the invention. (§36(4)(i)) In regard to an invention of a product, carrying out the invention means making and using the product in question (GL II 1-1 3.1.1).

(Patent applications)

§36 (4) The statement of the detailed explanation of the invention ... shall comply with each of the following items:

(i) in accordance with Ordinance of the Ministry of Economy, Trade and Industry, the statement shall be clear and sufficient as to enable any person ordinarily skilled in the art to which the invention pertains to work the invention; and ...

(6) The statement of the scope of claims ... shall comply with each of the following items:

- (i) the invention for which a patent is sought is stated in the detailed explanation of the invention;
- (ii) the invention for which a patent is sought is clear;
- (iii) the statement for each claim is concise; and
- (iv) the statement is composed in accordance with Ordinance of the Ministry of Economy, Trade and Industry.

<US>

A claim shall be particularly point out and distinctly claim the subject matter of the invention (§112(b)).

The specification shall include a written description of the invention (§112(a)). The requirements of a written description are applied to a process for determining the correction of claims.

The specification shall include a written description of the invention so as to enable any person skilled in the art to make and use the same invention. The specification shall set forth the best mode of carrying out the invention (§112(a)). However, under the AIA, such best mode is excluded from the grounds for invalidation (§282(b)(3)(A)).

Claims, if necessary, can be described by the Jepson type claim, which is composed of the preamble being a publicly-known element and the improvement. However, as the preamble could be recognized as a tacit approval for known results achieved by a third party (R1.75(e), MPEP 2129 III), there is a tendency to adopt the one-part claim.

A claim expressed as a means or step for performing a specified function shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof (Means-plus-function; §112(f)).

A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. (§112(e))

§112 Specification

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make

and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

...

(f) ELEMENT IN CLAIM FOR A COMBINATION.—An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

<EP>

The claims shall be clear and concise and be supported by the description (§84). A claim must be comprehensible from a technical point of view, but also that it must define clearly all the essential features of the invention. Essential features of a claim are those necessary for achieving a technical effect underlying the solution of the technical problem with which the application is concerned (GL F IV. 4.5.1, 4.5.2).

Claims shall contain a statement which form part of the prior art, and a characterising portion (R43(1)).

A European patent application may contain only one independent claim in the same category (R43(2)). No such limitation is found in JP or the U.S.

The application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (§83).

§83 Disclosure of the invention

The European patent application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

§84 Claims

The claims shall define the matter for which protection is sought. They shall be clear and concise and be supported by the description.

II. Filing

1. Persons having the right to obtain a patent

<JP>

The right to obtain a patent belongs to the inventor, and the inventor may assign the right to a third party (§29 main paragraph, §33(1)). If a person with no right to obtain a patent files an application, the application is subject to a reason for rejection (§49(1)(vii)). If a right to obtain a patent is shared by two or more people, such persons are required to jointly file an application (§38). A person with the right to obtain a patent is entitled to request that the patent granted to a patentee without the right be transferred to the person (§74(1)).

Under the Revision in 2015, companies may stipulate internal rules concerning employee inventions to the effect that such inventions should, in principle, belong to their employers. (§35(3)).

(Conditions for Patentability)

§29(1) An inventor of an invention that is industrially applicable may be entitled to obtain a patent for the said invention, except for the following: ...

(Right to obtain patent)

§33(1) The right to obtain a patent may be transferred.

(Joint applications)

§38 Where the right to obtain a patent is jointly owned, a patent application may only be filed by all the joint owners.

(Examiner's decision of refusal)

§49 The examiner shall render an examiner's decision to the effect that a patent application is to be refused where the patent application falls under any of the following:

(vii) where the applicant for the patent is not the inventor, the applicant has not succeeded to the right to obtain a patent for the said invention.

<US>

Whoever invents or discovers may obtain a patent therefor, subject to the conditions and requirements of this title (§101).

Under the provisions of the AIA, a person to whom the inventor has assigned or is under an obligation to assign the invention may make an application for patent (§111(a)(1), §118). When an invention is made by two or more persons jointly, they shall apply for patent jointly (§116(a)). In general, an employer and an employee would conclude an employment agreement stipulating that the employee should abandon his/her compensation for the employee invention.

An applicant of the subsequent application is entitled to request derivation proceedings in the case where the invention of the prior application is misappropriated, and the Patent Trial and Appeal Board (PTAB) may correct the inventor in response (§135(a)(1), (b)).

When an applicant intends to file the first application for a patent invented in the U.S. with offices in different countries, the applicant is required to receive permission from the U.S. (§184, R5.11(a)).

§101 Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

§111 Application.

(a) IN GENERAL.—

(1) WRITTEN APPLICATION.—An application for patent shall be made, or authorized to be made, by the inventor, except as otherwise provided in this title, in writing to the Director...

§118 Filing by other than inventor.

A person to whom the inventor has assigned or is under an obligation to assign the invention may make an application for patent...

<EP>

A patent application may be filed by any natural or legal person,

and an inventor or his/her successor has a right to obtain a patent (§58, 60(1)). An invention may be made by two or more persons jointly, and they may designate different member countries (§59, GL A II 2). If the inventor is an employee, the right to a European patent shall be determined in accordance with the law of the State in which the employee is mainly employed (§60(1)). In Germany, a right to obtain a patent for an invention belongs to the inventor of the invention, but his/her employer may request the right (§6 of the Patent Act; §6(1) of the Act on Employees' Inventions). In the UK, an employee invention belongs to his/her employer (§39(1) of the Patents Act).

If a person with no right to obtain a patent files an application, a person with the right to obtain a patent may stay the proceedings of the application as his/her application (§61(1), GL A IV 2).

§58 Entitlement to file a European patent application

A European patent application may be filed by any natural or legal person, or anybody equivalent to a legal person by virtue of the law governing it.

§59 Multiple applicants

A European patent application may also be filed either by joint applicants or by two or more applicants designating different Contracting States.

§60 Right to a European patent

(1) The right to a European patent shall belong to the inventor or his successor in title...

§61 European patent applications filed by non-entitled persons

(1) If by a final decision it is adjudged that a person other than the applicant is entitled to the grant of the European patent, that person may, in accordance with the Implementing Regulations:

- (a) prosecute the European patent application as his own application in place of the applicant;
- (b) file a new European patent application in respect of the

same invention; or

(c) request that the European patent application be refused.

2. Filing procedures

The Patent Law Treaty (PLT) aims to harmonize and streamline domestic filing procedures among countries, and stipulates a provision that Contracting Parties may relax the requirements of approval for the filing date of applications.

PLT§5 Filing Date

(1) [Elements of Application]

(a) Except as otherwise prescribed in the Regulations, and subject to paragraphs (2) to (8), a Contracting Party shall provide that the filing date of an application shall be the date on which its Office has received all of the following elements, filed, at the option of the applicant, on paper or as otherwise permitted by the Office for the purposes of the filing date:

(i) an express or implicit indication to the effect that the elements are intended to be an application;

(ii) indications allowing the identity of the applicant to be established or allowing the applicant to be contacted by the Office;

(iii) a part which on the face of it appears to be a description.

(b) A Contracting Party may, for the purposes of the filing date, accept a drawing as the element referred to in subparagraph (a)(iii).

...

(2) [Language]

(a) A Contracting Party may require that the indications referred to in paragraph (1)(a)(i) and (ii) be in a language accepted by the Office.

(b) The part referred to in paragraph (1)(a)(iii) may, for the purposes of the filing date, be filed in any language

<JP>

A person requesting the grant of a patent should submit a set including an application, description, scope of claims, drawings (where required), and abstract (§36(1), (2)).

If an applicant files a patent application whose description and other sections are written in a foreign language, and the Japanese

translation of the document is not appropriate, the applicant may amend the application (§36-2(1), §17-2(2)).

From April 1, 2016, the following procedures are allowed:

(1) A filing date is determined based on the statement that the applicant intends to obtain a patent, the description of the name of the applicant, and the attachment of the description (§38-2).

(2) A filing date is determined based on the fact that an applicant files an application in reference to his/her prior application. The applicant should file a necessary description and other documents within four months (§38-3, R27-10).

(3) An applicant may supplement the lacking part of the description or drawings. A date of filing the supplementary documents is the supplement date. However, in cases where the lacking part is described in the basic application, the first filing date is a filing date (§38-4).

(4) An applicant may file an application whose description is written in any foreign language. In this case, the applicant must submit a translation of the foreign language documents within 16 months from the filing date of the earliest application (§36-2(1), (2), R25-4). If the applicant has failed to submit such a translation, the applicant is notified of that fact and may file the translation within two months from the notice (§36-2(3), (4), R25-7(4)).

(Patent applications)

§36 (2) The description, scope of claims, drawings (where required), and abstract shall be attached to the application.

§36-2 (1) A person requesting the grant of a patent may, in lieu of the description, scope of claims, drawings (where required) and abstract as provided in paragraph (2) of the preceding Article, attach to the application a document in foreign language ...

<U.S.>

An application for a patent by an inventor shall include a specification, drawing, and oath by the inventor (§111(a)(1)). The accession to the PLT allows applicants to submit claims within a predetermined period with premiums attached. A filing date is the

submission date of the specification (§111(a)(1)-(4)). Applicants are not allowed to add any new matters after the filing date (R1.53(b)). As for provisional applications (mentioned below), no claim is required (§111(b)(2)).

If a missing part of the specification or drawing is found, the applicant is notified of that fact and may submit the missing part within a predetermined period. The filing date of the application is the submission date of the part (R1.53(e)). If an application is filed based on the claim of priority and the missing part is contained in the earlier application, the original filing date is maintained (R1.57(a)).

An application can be written in a language other than English. As for a provisional application, no translation is required (R1.52(d)).

§111 Application.

(a) IN GENERAL.—

(1) WRITTEN APPLICATION.—An application for patent shall be made, or authorized to be made, by the inventor, except as otherwise provided in this title, in writing to the Director.

(2) CONTENTS.—Such application shall include—

(A) a specification as prescribed by section 112;

(B) a drawing as prescribed by section 113; and

(C) an oath or declaration as prescribed by section 115.

(3) FEE, OATH OR DECLARATION, AND CLAIMS.—The application shall be accompanied by the fee required by law. The fee, oath or declaration, and 1 or more claims may be submitted after the filing date of the application, within such period and under such conditions, including the payment of a surcharge, as may be prescribed by the Director. Upon failure to submit the fee, oath or declaration, and 1 or more claims within such prescribed period, the application shall be regarded as abandoned.

<EP>

An application shall include a request for the grant of a patent, a description of the invention, claims, drawings and an abstract (§78).

Under the EPC2000, the date of filing of a European patent

application shall be the date on which the documents filed by the applicant contain (a) an indication that a European patent is sought (b) information identifying the applicant or allowing the applicant to be contacted and (c) a description or reference to a previously filed application. (R40(1)) Where the application contains a reference, a certified copy of the previously filed application shall be filed within two months of filing the application. (R40(3))

An applicant can submit the description of the invention in any language, but should submit a translation of the description within two months (§14(2), R6(1)).

If a missing part of the description or drawing is found, the applicant is notified of that fact and may submit the missing part within two months. The filing date of the application is the submission date of the part. If an application is filed based on the claim of priority and the missing part is included in the earlier application, the original filing date is maintained (R56(1)-(3)).

§14 Languages of the European Patent Office, European patent applications and other documents

(1) The official languages of the European Patent Office shall be English, French and German.

(2) A European patent application shall be filed in one of the official languages or, if filed in any other language, translated into one of the official languages in accordance with the Implementing Regulations....

§78 Requirements of a European patent application

(1) A European patent application shall contain:

- (a) a request for the grant of a European patent;
- (b) a description of the invention;
- (c) one or more claims;
- (d) any drawings referred to in the description or the claims;
- (e) an abstract

§80 Date of filing

The date of filing of a European patent application shall be the date on which the requirements laid down in the Implementing Regulations are fulfilled.

3. Priority and provisional application

<JP>

(1) Priority claim under the Paris Convention

If an applicant files an application in Japan within 12 months from the first filing date (priority date) of the earlier application filed in the member countries of the Paris Convention, the applicant shall be entitled to take advantage of the priority date (§43, §43-3; §4 of the Paris Convention).

(2) Internal priority

If an applicant has filed an application in Japan and intends to file another application to which any new sections, e.g., working examples, are added within 12 months from the first filing date of the prior application, the applicant shall be entitled to take advantage of the priority date concerning the invention described in the earlier application (§41(1)).

The introduction of the PLT contributed to relaxing the proceedings as follows.

An application filed within a priority period of 12 months is allowed to claim priority for an application within 16 months from the priority date of the earlier application (§41(4), §43(1), R27-4-2(3)(i)). For details of the priority period (12 months), see the “Restoration of proceedings” section.

If the time limit for an applicant to submit a priority certificate under the Paris Convention has lapsed, the JPO should send a notice of the fact to the applicant. In response, the applicant is allowed to submit the certificate within two months (§43(2), (6), (7), R27-3-3(5)). If the issuance of the certificate is delayed, the applicant is allowed to submit the certificate within one month (two months for overseas residents) (§43(8), R27-3-3(6)).

(Procedures for a priority claim under the Paris Convention)

§43(1) A person desiring to take advantage of the priority under ...the Paris Convention regarding a patent application shall ... submit to the Commissioner of the Patent Office a document stating thereof, and specify the country ... in which the application was first filed ... and the date of filing of the

said application.

<U.S.>

If an applicant files an application in the U.S. within 12 months from the first filing date (priority date) of the earlier application filed in the member countries of the Paris Convention, the applicant shall be entitled to take advantage of the priority date (§119(a)).

The applicant should claim priority and submit a certified copy of a foreign application within four months from the filing date of the application, or within 16 months from the filing date of the earlier application—whichever comes later (R1.55(d), (f)).

As a system similar to the internal priority system in Japan, the U.S. operates a provisional application system. No provisional application is required to include claims. If an applicant files a provisional application, the applicant may not take advantage of a priority claim based on another filed application or of the filing date of the earlier application (§111(b)). Documents for a provisional application can be written in a language other than English, and no translation is required (R1.52(d)(2)). The number of provisional applications filed in FY2015 was 170,676 (USPTO PAR FY2015).

§111 Application

(b) PROVISIONAL APPLICATION—

(1) AUTHORIZATION—A provisional application for patent shall be made or authorized to be made by the inventor, except as otherwise provided in this title, in writing to the Director. Such application shall include—

(A) a specification as prescribed by section 112(a); and

(B) a drawing as prescribed by section 113.

(2) CLAIM—A claim, as required by subsections (b) through (e) of section 112, shall not be required in a provisional application.

...

(4) FILING DATE—The filing date of a provisional application shall be the date on which a specification, with or without claims, is received in the United States Patent and Trademark Office.

...

(7) NO RIGHT OF PRIORITY OR BENEFIT OF EARLIEST FILING DATE—A provisional application shall not be entitled to the right of priority of any other application under section 119, 365(a), or 386(a) or to the benefit of an earlier filing date in the United States under section 120, 121, 365(c), or 386(c).

§119 Benefit of earlier filing date; right of priority.

(a) An application for patent for an invention filed in this country by any person ... shall have the same effect as the same application would have if filed in this country on the date on which the application for patent for the same invention was first filed in such foreign country, if the application in this country is filed within 12 months from the earliest date on which such foreign application was filed.

<EP>

If an applicant files an application in EP within 12 months from the first filing date (priority date) of the earlier application filed in the member countries of the Paris Convention, the applicant shall be entitled to take advantage of the priority date (§87(1)). An applicant claiming priority shall file a copy of the previous application within sixteen months of the earliest priority date claimed (R53(1)).

Under the EPC 2000, an applicant is allowed to claim priority within 16 months from the priority date of the earliest application (R52(2)). A relief measure was also prepared to restore the right of an applicant to take advantage of the priority date without completing an application within a priority period of 12 months, provided that the applicant should prove the fact that s/he has paid all due care (§122).

§87 Priority right

(1) Any person who has duly filed, in or for

(a) any State party to the Paris Convention for the Protection of Industrial Property or

(b) any Member of the World Trade Organization,
an application for a patent, ... shall enjoy, for the purpose of filing a European patent application in respect of the same

invention, a right of priority during a period of twelve months from the date of filing of the first application.

§122 Re-establishment of rights

(1) An applicant for or proprietor of a European patent who, in spite of all due care required by the circumstances having been taken, was unable to observe a time limit vis-à-vis the European Patent Office shall have his rights re-established upon request ...

4. Restoration of proceedings

The PLT stipulates the restoration of proceedings as an important provision.

PLT

§12 Reinstatement of Rights After a Finding of Due Care or Unintentionality by the Office

(1) [Request]

A Contracting Party shall provide that, where an applicant or owner has failed to comply with a time limit for an action in a procedure before the Office, and that failure has the direct consequence of causing a loss of rights with respect to an application or patent, the Office shall reinstate the rights of the applicant or owner with respect to the application or patent concerned, if:...

§13 Correction or Addition of Priority Claim; Restoration of Priority Right

(1) [Correction or Addition of Priority Claim]

Except where otherwise prescribed in the Regulations, a Contracting Party shall provide for the correction or addition of a priority claim with respect to an application (“the subsequent application”), if:...

<JP>

To harmonize the domestic proceedings with the PLT, the JPO introduced the following provisions for the restoration of proceedings. Under the revised law, restoration provisions are introduced in the following proceedings. However, an applicant is required to submit a written request for restoration, wherein reasonable grounds for such restoration are described, for the determination of the restoration. The requirements for approving such “reasonable grounds” are stricter than the level existing in the U.S.

For example, if an applicant fails to complete certain proceedings within a predetermined period of time, the applicant could later restore the proceedings by submitting a written request for

restoration with reasonable grounds within a predetermined period of time. The proceedings in question are as follows: submitting a translation of the application documents filed under the PCT (within two months from the filing date of the internal application), application filing for a priority claim (12 months), late payment of patent fees (six months), and request for examination (three years) [Revised provisions in 2011]

(i) Time limit for the submission of a translation (including applications filed under the PCT) (§36-2(4)-(7), §184-4(4)(5), R25-7(5), R38-2(2)-(4))

(ii) Late payment of patent fees, etc. (§112-2, R69-2)

[Revised provisions in 2014]

(i) Priority period and priority claim (§41(1)(i),(4), §43(1), §43-2(1), §17-4, R27-4-2(1), (2), (3)(iii),(iv), (4)-(7))

(ii) Priority certificate under the Paris Convention (§43(2),(6),(7), R27-3-3(5))

(iii) Request for examination (§48-3(5)-(7), R31-2(6),(7))

[Revised provision in 2015]

Sending a notice from the JPO to the applicant when the time limit has lapsed for the applicant to submit a notice of appointment of a patent administrator regarding the application filed under the PCT (§184-11(4)-(6))

<U.S.>

The accession to the PLT triggered the U.S. to remove a requirement of “unavoidable delay” from those for restoring rights, resulting in keeping one requirement of “unintentional” through the revision (§27, §41(a)(7)). The requirement of “unintentional” is more relaxed than JP and EP.

Restoration of rights is applied to proceedings including the priority period, priority claim, payment of patent issuance fees and patent maintenance fees (§41(a)(7),(c)(1), §119(a), R1.17(m), R1.55(c)-(e)). For example, when an applicant delays filing an application for a priority claim, the applicant is allowed to submit the application within two months if the delay is unintentional (§119(a)).

Concerning the payment of patent maintenance fees, the time limit of 24 months after its grace period was also abolished (§41(c)). The fee is 1,700 dollars.

§27 Revival of applications; reinstatement of reexamination proceedings.

The Director may establish procedures, including the requirement for payment of the fee specified in section 41(a)(7), to revive an unintentionally abandoned application for patent, accept an unintentionally delayed payment of the fee for issuing each patent, or accept an unintentionally delayed response by the patent owner in a reexamination proceeding, upon petition by the applicant for patent or patent owner.

§119 Benefit of earlier filing date; right of priority.

(a) ... The Director may prescribe regulations, including the requirement for payment of the fee specified in section 41(a)(7), pursuant to which the 12-month period set forth in this subsection may be extended by an additional 2 months if the delay in filing the application in this country within the 12-month period was unintentional.

<EP>

An applicant may take advantage of the simple “further processing” system in many proceedings, including the submission of documents to IP offices, wherein an applicant just pays predetermined fees and completes predetermined proceedings within two months (§121). However, this relief measure is not allowed to apply to proceedings for the priority period and period of request for examination, for example (§121(4), R135(2)).

If an application designating the EPO as a designated office under the Euro-PCT application system has not entered the European phase before the time limit of 31 months, the applicant is notified of the fact and the time limit is to extend to two more months to continue the proceeding (GL E VIII 2.1.2).

In this case, even when an applicant is not allowed to continue the proceeding (12-month priority period, period of request for

examination, etc.), the applicant may restore the right if s/he was unable to observe a time limit for submission to the EPO although s/he paid all due care (§122, R136(1), GL E VII 2.2.3). The EP has set the stricter standard on evidence concerning such all due care than those in the U.S. The fee is 640 euros.

§121 Requirements of a European patent application

(1) If an applicant fails to observe a time limit vis-à-vis the European Patent Office, he may request further processing of the European patent application.

§122 Re-establishment of rights

(1) An applicant for or proprietor of a European patent who, in spite of all due care required by the circumstances having been taken, was unable to observe a time limit vis-à-vis the European Patent Office shall have his rights re-established upon request if the non-observance of this time limit has the direct consequence of causing the refusal of the European patent application or of a request, or the deeming of the application to have been withdrawn, or the revocation of the European patent, or the loss of any other right or means of redress.

III. Examination

1. Search and request for examination

<JP>

The examination of a patent application is initiated after the filing of a request for examination, and conducted by examiners (§47, §48-2). Any person may request examination within three years from the filing date (§48-3(1)).

If the results of a search conducted by a registered searching authority (10 authorities as of May 1, 2016) are provided, examiners shall examine the details of the results and then conduct a prior art search (GL I 2-2 1).

(Examination by examiner)

§47(1) The Commissioner of the Patent Office shall direct the examination of patent applications by an examiner.

(Examination of patent applications)

§48-2 The examination of a patent application shall be initiated after the filing of a request for examination.

(Request for examination of application)

§ 48-3 (1) Where a patent application is filed, any person may, within 3 years from the filing date thereof, file with the Commissioner of the Patent Office a request for the examination of the said application.

<U.S.>

Unlike JP or EP, no system for examination request exists in the U.S.

Examiners should search prior arts and examine applications (R1.104(a)(1), MPEP 904).

§131 Examination of application.

The Director shall cause an examination to be made of the application and the alleged new invention; and if on such examination it appears that the applicant is entitled to a

patent under the law, the Director shall issue a patent therefor.

<EP>

Unlike JP or the U.S., a European Search Report is prepared before starting an examination and publicizing the report (§92). EP used to separate examiners by search and substantive examination, but examiners who have researched prior arts of applications also now examine the applications (GL B I 2).

In the case of the Euro-PCT application (European patent applications filed based on international patent applications), the international search report works as an alternative for a European search report. If the international search report is not drawn by the EPO (but the JPO or USPTO), however, a supplementary European search report is prepared (GL B II 4.3.2).

An applicant may request an examination within six months from the date when the European gazette refers to the European search report (§94(1), R70(1)).

European patent applications shall be examined by Examining Divisions (§94(1)), which normally consist of three technical examiners. However, one member (the primary examiner) will, as a general rule, be entrusted to carry out all the work. The Examining Division decides whether or not to grant patents (GL C VIII 1, 6).

§92 Drawing up of the European search report

The European Patent Office shall, in accordance with the Implementing Regulations, draw up and publish a European search report in respect of the European patent application on the basis of the claims, with due regard to the description and any drawings.

§94 Examination of the European patent application

(1) The European Patent Office shall, in accordance with the Implementing Regulations, examine on request whether the European patent application and the invention to which it relates meet the requirements of this Convention.

2. Submission of prior arts by applicants

<JP>

An applicant should provide in a specification the publicly-known arts related to the invention that s/he acknowledges (§36(4)(iv)). If the applicant fails to provide such arts, s/he will be notified of that fact (§48-7). However, such notice is rarely sent.

(Patent applications)

§36 (4) The statement of the detailed explanation of the invention ... shall comply with each of the following items:

(ii) where the person requesting the grant of a patent has knowledge of any invention(s) ... related to the said invention, that has been known to the public through publication at the time of filing of the patent application, the statement shall provide the source of the information concerning the invention(s) known to the public through publication such as the name of the publication and others.

<U.S.>

An applicant is required to have a “duty of candor and good faith” to the USPTO, to which s/he is expected to submit important information (R1.56). In particular, as an inequitable conduct as a defense is often raised in litigations, if a court decided that the applicant concealed important information, it will be completely impossible to enforce the applicant's patent. Filing an information disclosure statement (IDS), which is a system unique to the U.S., has been causing a heavy burden for applicants and other stakeholders.

R§1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and

good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned.

<EP>

If an applicant intends to claim priority for a subsequent application, s/he should submit a copy of the search results of the earlier application (R141). If the EPO notes that such a copy has not been submitted, the applicant is required to submit one (R70b). Some of the countries, e.g., JP and the U.S., are exemplified from this. This requirement is not as strict as that in the U.S.

§ 124 Information on prior art

(1) The European Patent Office may, in accordance with the Implementing Regulations, invite the applicant to provide information on prior art taken into consideration in national or regional patent proceedings and concerning an invention to which the European patent application relates.

3. Unity of invention (inventions allowed to be included in one application)

Unity of invention is a requirement to allow an applicant to describe an invention to a pre-determined extent in order to alleviate the burden on examination per application, and to make the use of patent information efficient. Even if such applicant fails to meet this requirement, this failure will not become grounds for canceling a patent that has already been granted, since it is a deficiency in the proceeding.

<JP>

One application can include a group of inventions that are identical or share corresponding, special technical features (§37, R25-8(1)). This idea is consistent with those in the PCT and EPC.

The term “special technical features” refers to technical features that explicitly contribute to the prior art of the invention (R25-8(2)).

For examination, examiners basically target Claim 1 and inventions in the same category that are subordinated under Claim 1, as well as the inventions sharing special technical features (excluding inventions whose technical relation is relatively low). The reason for unity of invention is notified with other reasons as the result of the examination to applicants (GL II 3 4.2, 4.3).

The fee for the request for examination per claim is 4,000 yen, regardless of the number of claims.

§37 Two or more inventions may be the subject of a single patent application in the same application provided that, these inventions are of a group of inventions recognized as fulfilling the requirements of unity of invention based on their technical relationship designated in Ordinance of the Ministry of Economy, Trade and Industry...

<U.S.>

Excluding applications filed under the PCT, an applicant may not claim “two or more independent and distinct inventions” in one application. However, an application may include two or more species under permissible families (§121, §372(b)(2), R1.141).

Requirements for restriction are executed in cases where two or more inventions are “independent and distinct inventions,” and the examination is expected to bear a “serious burden” (MPEP 803, 808). The term “serious burden” includes “separate classification,” “a separate field of search,” and “a different field of search” (MPEP 808.02).

If an applicant provides “a generic claim” that is not allowable, s/he is required to select “a species” (R1.146).

As a multiple dependent claim may not serve as a basis of another multiple dependent claim (R1.75), the number of claims for this case tends to increase compared to those in JP and EP.

In cases where one application includes three or more independent claims, the fee is 420 dollars per claim, while in cases where one application includes 20 or more claims in total, the fee is 80 dollars per claim (R1.492(d),(e)).

§121 Divisional applications.

If two or more independent and distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions.

<EP>

One application can include one invention or unitary group of inventions with a comprehensive inventive idea, sharing special technical features (§82, R44(1)).

The expression “special technical features” shall mean those features which define a contribution which each of the claimed inventions considered as a whole makes over the prior art (R44(1)).

Where the Search Division finds that the claimed invention does not meet the requirement of unity of invention, the Search Division sends the applicant an invitation to pay additional search fees and the partial search report relating to the invention or unitary group of inventions first mentioned in the claims (GL B XI 5).

Only one independent claim is basically allowed by category (R43(2)). In the case where one application includes 16 or more claims, the claims fee is 235 euros per claim, while in cases where one application includes 51 or more claims, the fee is 585 euros. The claims fee will increase according to the number of claims (R45(1)).

§ 82 Unity of invention

The European patent application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept.

4. Notice of reasons for refusal and decision of refusal

<JP>

In the first examination, examiners will check elements including the unity of invention, deficiency in the description, novelty, and inventive step, and basically send a first notice concerning all of the reasons for refusal that were discovered during the check (§50, GL I 2-3 3.1(2)). Reasons for refusal are limited to those listed in §49.

If no amendment is made to solve the problem shown by the notice of reasons for refusal, examiners shall make a decision of refusal (§49, GL I 2-5 3).

If there is a reason for refusal to be notified by amendment after the first notice of reasons for refusal, the reason for the final refusal will be notified (GL I 2-3 3.2.1) (e.g., a case where the first reason for refusal has been resolved, but there is a new reason for refusal of inventive step following the check of the amendment).

Reasons for refusal should be described clearly enough to encourage applicants to understand the purpose of the reasons. Reasons for refusal due to the lack of inventive step should describe the logical approaches to refusing the inventive step of the claimed invention, on the premise that excerpts from the document and the differences between the claimed and cited inventions are clearly described (GL I 2-3 4).

The time limit for submitting a reply to such notice is normally 60 days, but this is extendable for two more months beginning April 1, 2016 (only for examination proceedings). The fee is 2,100 yen per notice. As for overseas residents, the existing rules remain in terms of the time limit for such response being three months (which is extendable for up to three more months). On request, an applicant may also extend the period for two more months after the time limit lapses, but in this case, the applicant is required to pay a fee of 51,000 yen.

(Examiner's decision of refusal)

§49 The examiner shall render an examiner's decision to the effect that a patent application is to be refused where the patent application falls under any of the following:

(i) an amendment made to the description, scope of claims or

drawings attached to the application of a patent application does not comply with the requirements as provided in Article 17-2(3) or (4);

(ii) the invention claimed in the patent application is not patentable under Article 25, 29, 29-2, 32, 38 or 39(1) to 39(4);

...

(iv) the patent application does not comply with the requirements under Article 36(4)(i), 36(6), or 37; ...

(Notice of reasons for refusal)

§50 Where the examiner intends to render an examiner's decision to the effect that an application is to be refused, the examiner shall notify the applicant for the patent of the reasons therefor and give the said applicant an opportunity to submit a written opinion, designating an adequate time limit for such purpose; ...

<U.S.>

An examiner should notify an applicant of any rejection or objection made (§132, R1.104 (a)). No requirement for issuing office action is listed in the patent laws. In principle, the time limit for a reply to an office action is three months, but is expandable for a maximum of three months with no procedure required (MPEP 710-710.02). The fee for extending the reply period for one month is 200 dollars, for two months is 600 dollars, and for three months is 1,400 dollars (R1.17(a)).

The second office action ordinarily means the final office action, and issuing this action is deemed to mean that proceedings for the application have concluded (R1.113(a), R1.114(b)). The final office action should be accompanied with clear reasons for all decisions of refusal (R1.113(b)).

Actions to the final office action are request for trial, amendment, request for continued examination (RCE), and other efforts (R 1.113(a), 1.114(a), 1.116(a)). In other words, as the second office action is the final one, amendment is significantly limited. However, unlike JP or EP, the UP provides a system of the RCE. The fee for the RCE is 1,200 dollars (R1.17(e)).

If a claim of an application to which the applicant requested

continued examination is identical to that in the earlier application, and another office action is issued for the same reason, the first action could be the final action (First Action Final; MPEP 706.07(b)). To avoid this situation, an applicant may file preliminary amendments (R1.115).

§132 Notice of rejection; reexamination.

(a) Whenever, on examination, any claim for a patent is rejected, or any objection or requirement made, the Director shall notify the applicant thereof, stating the reasons for such rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application; and if after receiving such notice, the applicant persists in his claim for a patent, with or without amendment, the application shall be reexamined. No amendment shall introduce new matter into the disclosure of the invention.

<EP>

If the examination reveals that the application or the invention to which it relates does not meet the requirements of this Convention, the Examining Division shall invite the applicant, as often as necessary, to file his observations (§94(3), R71(1)). The EPC does not stipulate any list of requirements in deciding reasons for refusal. Proceedings equivalent to the first and final reasons for refusal in JP, or the non-final/final rejection in the U.S. are not stipulated in EP.

The time limit for reply to communication is normally four months, but this is extendable for six more months free of charge on request by the applicant before the limit terminates (R132, GL E VII 1.2, 1.6).

The Examining Division must appoint oral proceedings before issuing a decision to refuse if the applicant has requested subsequent oral proceedings (GL C V 4.7.1). Oral proceedings are required to take place in order to avoid issuing a decision of refusal (§116). If these proceedings take place, a decision will be expressed orally and a written document will be sent to the applicant at a later date (R111).

If the European patent application or the invention does not meet the requirements of this Convention, the Examining Division shall refuse the application (§97(2)).

§ 94 Examination of the European patent application

(3) If the examination reveals that the application or the invention to which it relates does not meet the requirements of this Convention, the Examining Division shall invite the applicant, as often as necessary, to file his observations and, subject to Article 123, paragraph 1, to amend the application.

§97 Grant or refusal

(2) If the Examining Division is of the opinion that the European patent application or the invention to which it relates does not meet the requirements of this Convention, it shall refuse the application unless this Convention provides for a different legal consequence.

§116 Oral proceedings

(1) Oral proceedings shall take place either at the instance of the European Patent Office if it considers this to be expedient or at the request of any party to the proceedings. However, the European Patent Office may reject a request for further oral proceedings before the same department where the parties and the subject of the proceedings are the same.

<PLT>

Under the PLT, a Contracting Party may provide for the extension, for the period prescribed in the Regulations, of a time limit fixed by the Office for an action in a procedure before the Office in respect of an application or a patent (PLT§11).

5. Amendment

<JP>

Before receiving the first notice of reasons for refusal, an applicant may amend the scope of claims and other elements of the application during the reply period to the notice, or in filing a request for trial (§17-2(1)).

In the amendment, no new matter can be inserted within the specification, scope of claims, or drawings (§17-2(3)).

Amendments to the final notice of reasons for refusal, or to filing a request for trial, are limited to the restriction of claims and other conditional restrictions (§17-2(5)). If such amendments are against such restriction, they are rejected due to the addition of new matters or non-conformity to the requirements (§53(1)). For example, if amended claims in a reply to the final notice of reasons for refusal do not provide inventive step, the amendment will be rejected, and the decision of refusal will be made automatically. An applicant may amend the document based on the claims prior to the amendment, at the same time as an appeal.

In cases where the reasons for refusal for a divisional application are identical to those for the original application, amendments to the divisional application are restricted to that to make the reasons the same as those in the final notice of reasons for refusal (§17-2(5), §50-2).

(Amendment of Description, Claim or Drawing attached to the application)

§17-2(1) An applicant for a patent may amend the description, scope of claims, or drawings attached to the application, before the service of the certified copy of the examiner's decision notifying that a patent is to be granted; provided, however, that following the receipt of a notice provided under Article 50, an amendment may only be made in the following cases:

(i) where the applicant has received the first notice ... and the said amendment is made within the designated time limit under Article 50;

...

(iii) where, following the receipt of the notice of reasons for refusal, the applicant has received a further notice of reasons for refusal and the said amendment is made within the designated time limit under Article 50 with regard to the final notice of reasons for refusal; and

(iv) where the applicant files a request for a trial against an examiner's decision of refusal and said amendment is made at the same time as said request for said trial.

<U.S.>

An applicant may amend the scope of claims and other elements of the application before the first office action, after office action and the final office actions, or after submission of a notice of a request for trial rejection (MPEP 714 I).

No amendment shall introduce new matter into the disclosure of the invention (§132(a)). Otherwise, the amendment will be subject to objection (petition of objection shall be submitted to the Commissioner).

New or amended claims introducing elements or restrictions not supported by the disclosure in filing the original application are against the written description requirement (§112, MPEP 2163 I B), and are subject to rejection (A petition of objection shall be submitted when filing a request for trial).

Amendments after the final office action are restricted to the removal of claims, etc. (R1.116(b)). To this end, an applicant may use a continuing application (CA) or a request for continued examination (RCE). For example, a CA will be used to newly file a claim for which no notice of office action has been issued, while a RCE will be used for requesting the office to continue the examination proceeding by limiting claims.

§112 Specification.

(a) IN GENERAL—The specification shall contain a written description of the invention,

§132 Notice of rejection; reexamination.

(a) ... No amendment shall introduce new matter into the disclosure of the invention.

<EP>

An applicant shall not amend the specification and other sections of the application before receiving a European search report, but may amend it after receiving the report. Following this, the applicant may amend such documents only if the Examining Division agrees to do so. No subject matter for which a search has not been conducted can be introduced into an amendment if it is not related to the original claims (§123(1), R137, GL H II 2).

The application may not be amended in such a way that it includes subject matter that extends beyond the content of the application as filed, or as to extend the protection that it confers (§123(2)(3)).

In examination, opposition and limitation proceedings, parties may submit a main request followed by one or more auxiliary requests (GL H III 3).

§ 123 Amendments

(1) The European patent application or European patent may be amended in proceedings before the European Patent Office, in accordance with the Implementing Regulations. In any event, the applicant shall be given at least one opportunity to amend the application of his own volition.

(2) The European patent application or European patent may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.

(3) The European patent may not be amended in such a way as to extend the protection it confers.

6. Granting patent and duration of a patent right

<JP>

Where no reasons for refusal are found for a patent application, the examiner shall render a decision to the effect that a patent is to be granted (§51). The ratio of the applications to which a patent is granted in all applications in 2014 is 69.3% (2016 JPO Annual report). In JP, procedures for correction of errors in the description, as those in the U.S., and those for confirming the authentic text, as those in EP, are not provided. Sometimes, a Memorandum of Patent describing the reasons for granting a patent may be prepared, but such a service is rarely provided (HB 1212).

The term of a patent right is 20 years from the filing date, but it can be extended by a period not exceeding five years when the applicant needs time to gain approval for medical agents or other reasons (§67).

(Examiner's decision to the effect that a patent is to be granted)

§51 Where no reasons for refusal are found for a patent application, the examiner shall render a decision to the effect that a patent is to be granted.

(Duration of patent rights)

§67 (1) The duration of a patent right shall expire after a period of 20 years from the filing date of the patent application.

(2) Where there is a period during which the patented invention is unable to be worked because approvals prescribed by relevant Acts that are intended to ensure the safety, etc. or any other disposition designated by Cabinet Order as requiring considerable time for the proper execution of the disposition in light of the purpose, procedures, etc., of such a disposition is necessary to obtain for the working of the patented invention, the duration of the patent right may be extended, upon the filing of a request for the registration of extension of the duration, by a period not exceeding 5 years.

<U.S.>

If it appears that an applicant is entitled to a patent under the law, a written notice of allowance of the application shall be given or mailed to the applicant (§151(a), R1.311). The ratio of the applications to which a patent is granted in all applications in 2014 is 70.9% (2016 JPO Annual report). Examiners are allowed to issue examiner's amendments, e.g., correcting errors or wrong codes of cited references (MPEP 1302.04).

Examiners may send a notice of reasons for allowance to the applicant (R1.104(e), MPEP 1302.14).

The term of a patent right is 20 years from the filing date, but it can be extended, only once, by a period not exceeding five years when the applicant needs time to gain approval for medical agents or other reasons (§156(a)).

The duration of a patent right can be extended according to the delays in issuing a patent due to a failure of the USPTO (§154(b)). This system does not exist in JP or EP.

§154 Contents and term of patent; provisional rights.

(a) IN GENERAL.—

(2) TERM.—Subject to the payment of fees under this title, such grant shall be for a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for the patent was filed in the United States or, if the application contains a specific reference to an earlier filed application or applications under section 120, 121, 365(c), or 386(c) from the date on which the earliest such application was filed.

...

§156 Extension of patent term.

(a) The term of a patent which claims a product, a method of using a product, or a method of manufacturing a product shall be extended in accordance with this section from the original expiration date of the patent, which shall include any patent term adjustment granted under section 154(b) if —

...

(4) the product has been subject to a regulatory review period before its commercial marketing or use;

(5)(A) except as provided in subparagraph (B) or (C), the permission for the commercial marketing or use of the product after such regulatory review period is the first permitted commercial marketing or use of the product under the provision of law under which such regulatory review period occurred;

...

<EP>

If the Examination Division recognized that the application and the invention to which it relates meet the requirements of the EPC, it will send to the applicant the authentic text of the patent to be publicized. Following the confirmation of the text and the submission of translation of claims in a language other than that used in the proceedings by the applicant, the Examination Division shall decide to grant the patent (§97(1), R71(3), GL C V 1.1, 2). The ratio of the applicants to which a patent was granted in all applications in 2014 was 47.6% (2016 JPO Annual report).

The duration of a patent right is 20 years from the filing date, but this is extendable under domestic laws (§63). In 1993, the supplementary protection certificate (SPC) was introduced into the EU regulations, and an applicant may expand the duration of the patent right for a maximum of five years under the SPC.

Applicants should additionally pay renewal fees to maintain the application beginning in the third year (§86, R51).

§63 Term of the European patent

(1) The term of the European patent shall be 20 years from the date of filing of the application.

(2) Nothing in the preceding paragraph shall limit the right of a Contracting State to extend the term of a European patent, or to grant corresponding protection which follows immediately on expiry of the term of the patent, under the same conditions as those applying to national patents:

...

§97 Grant or refusal

(1) If the Examining Division is of the opinion that the European patent application and the invention to which it relates meet the requirements of this Convention, it shall decide to grant a European patent, provided that the conditions laid down in the Implementing Regulations are fulfilled.

7. Various applications

<JP>

(1) Divisional application

An applicant may file a divisional application during the period of the amendment (§44(1)(i)). In addition, an applicant may also file such application within 30 days from the date of decision to grant a patent, or three months from receiving the notice of reasons for refusal (as for overseas residents, four months). However, the application should be based on the descriptions in the specifications of the original application, and the specifications immediately before filing the divisional application (§44(1)(ii), (iii), GL VI 1-1 2.2, HB VI 1 6108). Moreover, an applicant may not file a divisional application if the patent is granted followed by the filing of a request for trial (including reconsideration by examiner before appeal) (§44(1)(ii), GL VI 1-1 2.1.2). If a divisional application contains new matter, the divisional application is deemed filed on the actual date of filing (GL VI 1-1 2.3).

Filing a divisional application is an approach to obtaining a patent using different claims from those in the original application after a decision of refusal has been issued when the original application does not meet requirements (e.g., unity of invention).

(2) Conversion of application, etc.

An applicant may convert the application for utility model registration to a patent application, or file a patent application based on the registered utility model, within three years from the date of filing of the utility model (§46(1), §46-2(1)). In this case, the original application or registered utility model is deemed to be withdrawn or abandoned (§46(4), §46-2(1)).

(3) Utility model system

Concerning devices, targets to be protected are the shape or structure of an article or combination of articles, excluding methods as a category (§3(1) of the Utility Model Act). No substantive examination is executed for filed devices. The duration of a utility model right is 10 years from the filing date (§15). The right holder should present the Report of Utility Model Technical Opinion to

execute his/her right and give warning (§29-2 of the Utility Model Act).

Utility Model Act

§3 A creator of a device that relates to the shape or structure of an article or combination of articles and is industrially applicable may be entitled to obtain a utility model registration for said device, except when the following applies: ...

§15 The duration of a utility model right shall expire after a period of ten years from the filing date of the application for utility model registration.

§29-2 A holder of a utility model right or an exclusive licensee may not exercise his/her utility model right or exclusive license against an Infringer, etc. unless he/she has given warning in the Report of Utility Model Technical Opinion regarding the registered utility model.

Patent Act

(Division of patent applications)

§44 (1) An applicant for a patent may extract one or more new patent applications out of a patent application containing two or more inventions only within the following time limits: ...

<U.S.>

An applicant may file a continuing application, divisional application or continuation-in-part application before patent granting, or abandoning or completing application proceedings (§120, R1.53(b)). The effective filing date of a divisional application and continuing application that meet the requirements under the provisions of §120 is the filing date of the original application (R1.53(b), MPEP 706.02 VI(A)).

(1) Divisional application

If two or more independent and distinct inventions are claimed in one application and the director may require the application to be restricted to one of the inventions, the applicant may file a divisional

application. In this case, the original application is not cited due to double patenting (§121).

(2) Continuing application (CA)

If patentability of one of the claims in the earlier application is not allowed, for example, the applicant may file a continuing application by removing the claim from the earlier application.

(3) Continuation-in-part application (CIP)

Under the continuation-in-part application system, an applicant may disclose the subject matter not disclosed in the earlier application, and describe it as a claim (R1.53(b)). For example, an applicant may describe new working examples or invention of improvement in the description and file the description as a CIP, which is a similar procedure to the internal priority system in JP. In a CIP, it would not be appropriate to make the first office action be the final office action (MPEP 706.07(b)). As for claims not supported by the original application, the actual date of filing the CIP is an effective filing date, while for those supported by the original application, the date of filing the original application is an effective filing date (MPEP 706.02 VI(B)).

(Request for continued examination: RCE)

Request for continued examination is not a new application. If application proceedings (final rejection, request for trial, notice of patent granted) are completed (final rejection, request for trial, notice of patent granted), the applicant may request continued examination before abandonment or payment of patent issuance fees of the application (§132(b), R1.114). This system is utilized in requesting examination of an application that includes new issues added to the existing claims after the final notice of rejection. The fee for RCE is 1,200 dollars for the first time and 1,700 dollars for the second and subsequent times (R1.17(e)).

§120 Benefit of earlier filing date; right of priority.

An application for patent for an invention disclosed in the manner provided by section 112(a) (...) in an application previously filed in the United States, or as provided by section

363 or 385 which names an inventor or joint inventor in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

<EP>

An applicant may file a divisional application concerning the pending original application. Not extending beyond the content of the original application as filed, such divisional applications are deemed to have been filed on the filing date of the original application (§76, R36(1)). The fees for divisional applications increase according to the increase of the number of generations of the application (§2 of the Rules relating to Fees). The term “pending” refers to the period of time before the date when the European patent gazette refers to the patent granted. Meanwhile, for rejected applications, such pending is the period of time when an applicant may submit a notice of request for trial (GL A IV 1.1.1, C IX 2.2).

If an applicant fails to remove the subject matter extending beyond the content of the original application as filed, the application will be rejected under §76(1) (GL C IX 1.4).

An applicant should also pay renewal fees for the divisional application retroactively to the filing date of the original application (R51(3), GL A IV 1.4.3).

§76 European divisional applications

(1) A European divisional application shall be filed directly with the European Patent Office in accordance with the Implementing Regulations. It may be filed only in respect of subject-matter which does not extend beyond the content of the earlier application as filed; in so far as this requirement is complied with, the divisional application shall be deemed to have been filed on the date of filing of the earlier application and shall enjoy any right of priority.

(2) All the Contracting States designated in the earlier application at the time of filing of a European divisional application shall be deemed to be designated in the divisional application.

8. Accelerated examination

Under the Patent Prosecution Highway (PPH) program, applicants who have received a positive decision on their patent claims as being patentable from the first office are entitled to request an accelerated examination of the corresponding applications in the second office. The program was inaugurated in 2006 between Japan and the U.S. in response to Japan's proposal. In this program, an applicant is also able to use a PCT written opinion in the international phase of the PCT international applications (PCT-PPH).

As of April 1, 2016, 39 partner countries have adopted the PPH program, and the number of applications filed through the program has reached over 100,000 (2016 JPO Annual Report). The number of applications filed in 2015 was 3,790 in JP, 7,403 in the U.S., and 1,925 in EP (PPH Portal Site).

<JP>

[Accelerated examination system]

Under this system, an applicant may request accelerated examination free of charge concerning applications that have already been worked or will be worked, as well as those filed in overseas countries, those filed by SMEs or venture businesses, or those related to environmental technologies. The number was 17,511 in 2015. The average period from filing a request for examination to issuing the first action is 2.3 months (2016 JPO Annual Report).

[Super accelerated examination system]

The system targets “working-related applications” and “internationally filed applications” as highly important applications. An applicant may file a request for the accelerated examination of these applications free of charge—much faster than those filed under the regular accelerated examination system. The number was 554 in 2015. The average period from filing a request for examination to issuing the first action is 0.8 months (2016 JPO Annual Report).

[Preferential examination]

If a third party is working the invention claimed in a patent application as a business, the applicant for the claimed invention is

entitled to file a request for preferential examination. This system is rarely utilized due to the operation of the PPH and the accelerated examination system (§48-6).

(Preferential examination)

§ 48-6 Where it is recognized that a person other than the applicant is working the invention claimed in a patent application as a business after the laying open of the application, the Commissioner of the Patent Office may, where deemed necessary, cause the examiner to examine the patent application in preference to other patent applications.

<U.S.>

Under the examination promotion program, applications may be advanced for examination on the basis of an applicant's age or health, the quality of the environment, or the development/conservation of energy resources ("Make Special"). Fees may be set or not set depending upon the applications (R1.102(c),(d), MPEP 708.02).

The prioritized examination system "Track One" was introduced under the revised provisions in 2011. The system targets applications containing four or less independent claims, and 30 or fewer claims in total. A request for the examination should be filed when filing the application, with fees costing 4,000 dollars (R1.102(e)). Track One pendency from petition grant to first office action is 2.1 months on average (USPTO Data Visualization Center).

R§1.102 Advancement of examination.

(c) A petition to make an application special may be filed without a fee if the basis for the petition is:

- (1) The applicant's age or health; or
- (2) That the invention will materially:
 - (i) Enhance the quality of the environment;
 - (ii) Contribute to the development or conservation of energy resources; or
 - (iii) Contribute to countering terrorism.

<EP>

Under the program for accelerated prosecution of European patent applications (PACE), an applicant may file a request for accelerated examination (GL C VI 2, E VII 3.2). In principle, such a request can be filed whenever possible, but whether or not it is permitted is left to the discretion of examiners.

9. Interview

<JP>

An applicant is entitled to offer direct or telephone-based interviews with examiners during the period from a request for examination until a report of reconsideration by examiner before appeal, or a notice of decision to grant a patent (GL for Interview 2(1)). If an examiner receives a request for interview from a representative designated by the applicant, the examiner should, in principle, accept the request at least once (GL for Interview 3.2).

<US>

An interview should be granted when the nature of the case is such that the interview serves to develop or clarify outstanding issues in an application (MPEP 713).

In 2009, the U.S. introduced the Full First Action Interview Pilot Program, wherein an applicant may make an interview with an examiner after receiving a pre-interview communication including the results of prior-art search results conducted by the examiner.

<EP>

If an applicant files a request for interview with an examiner, the request shall be permitted, excluding cases where the examiner considers such an interview to be totally useless for achieving a useful goal. Ordinarily, an examiner in charge will take part in such interview, and another examiner in a different division may also take part (GL C VII 2, 2.3).

10. Information provided by a third party

<JP>

Anyone can provide information concerning an application for patent when the application is pending and after the decision of patent granting, including information concerning description requirements and new matters as well as novelty and inventive step (R13-2, R13-3).

The address and name of the person who has provided information may be omitted (R13-2(4), R13-3(3)).

No procedure is stipulated for examination of evidence (HB I 2 1202 6).

<U.S.>

Any third party may submit publications related to the examination of applications. A time limit is set for this submission, e.g., before sending the first notice of reasons for refusal (§122(e)(1)). The fee is 180 dollars per ten documents, but no fee is taken for three or fewer documents (R1.290(f), (g), R1.17(p)).

§122 Confidential status of applications; publication of patent applications.

(e) PREISSUANCE SUBMISSIONS BY THIRD PARTIES.—

(1) IN GENERAL.—Any third party may submit for consideration and inclusion in the record of a patent application, any patent, published patent application, or other printed publication of potential relevance to the examination of the application, if such submission is made in writing before the earlier of—

(A) the date a notice of allowance under section 151 is given or mailed in the application for patent; or

(B) the later of—

(i) 6 months after the date on which the application for patent is first published under section 122 by the Office, or

(ii) the date of the first rejection under section 132 of any claim by the examiner during the examination of the application for patent.

<EP>

Any third party may present observations concerning the patentability of the invention to which the application or patent relates after the publication of the invention (§115). The applicant of the invention may submit a written answer to these observations (R114), including observations concerning description requirements and new matters, as well as novelty and inventive step (GL E V 3).

§ 115 Observations by third parties

In proceedings before the European Patent Office, following the publication of the European patent application, any third party may, in accordance with the Implementing Regulations, present observations concerning the patentability of the invention to which the application or patent relates. That person shall not be a party to the proceedings.

IV. Appeal against a decision of refusal

<JP>

An applicant may file a request for a trial against the decision of refusal within three months (four months for overseas residents) from the date the certified copy of the decision was sent (§4, §121(1)). Where a request for a trial is filed by a joint owner or owners of the invention, all of the joint owners shall jointly file the request (§132(3)). A trials shall be conducted by a panel consisting of three or five trial examiners, and a decision of the panel shall be made by a majority vote (§136). The number of such requests tends to decline, and the number of filed requests in 2015 was 21,858. The grant rate by the panel (requests approved) was 60% in the same year (2016 JPO Annual Report).

If a claim etc is amended at the same time as the appeal, an examiner should re-examine them (reconsideration by examiner before appeal; §162). Following this, the examiner shall cancel the decision of refusal if granting a patent, or report to the Commissioner of the Patent Office the result of the examination (§164(1), (3)). The grant rate by the reconsideration was 57% in 2015 (2016 JPO Annual Report).

If a panel of trial examiners upholds such request, it shall make a decision on the appeal without remanding the case back to the examination.

If such panel does no uphold such request for trial, the petitioner of the case may file an appeal against the decision with the Tokyo High Court (§178 (1)).

(Trial against examiner's decision of refusal)

§121 (1) A person who has received an examiner's decision to the effect that an application is to be refused and is dissatisfied may file a request for a trial against the examiner's decision of refusal within 3 months from the date the certified copy of the examiner's decision has been served.

<US>

An applicant for a patent whose claims have been twice rejected may appeal to the Patent Trial and Appeal Board (PTAB). (§134(a)).

The time limit for filing a request for appeal is six months or less (R1.134). A panel of at least three administrative patent judges reviews an appeal (§6). The number of requests filed for appeal in FY2015 was 8,055 (USPTO PAR FY 2015).

If an examiner made a decision not to grant a patent for the invention in response to the reply to the final rejection, the examiner shall mail the advisory action to the applicant (MPEP 706.07(f)). The Advisory Action will not make any impact on the time limit for filing an appeal request (MPEP 714.13 I).

Because the range of amendment to the final rejection is limited, and the decision by examiners is unlikely to be overturned even when filing a request for appeal, applicants are likely to use RCE.

Examiners may reply to a filed request for appeal (examiner's action), and the petitioner may present a counterargument (R41.39, 41.41).

The Board, in its decision, may affirm or reverse the decision of the examiner. The Board may also remand an application to the examiner (R41.50(a)(1)). The ratio of requests approved regarding which a patent is granted in FY2014 was 31%, while the number of such cases remanded back for examination was 57 in the same year (USPTO PAR FY 2014).

If such panel does not uphold such requests, the petitioner of the case may file an appeal against the decision with the United States Court of Appeals for the Federal Circuit (CAFC) (§141).

§134 Appeal to the Patent Trial and Appeal Board.

(a) PATENT APPLICANT.— An applicant for a patent, any of whose claims has been twice rejected, may appeal from the decision of the primary examiner to the Patent Trial and Appeal Board, having once paid the fee for such appeal.

<EP>

An applicant may file a request for appeal against the decision of the Examining Divisions within two months (§106(1), §108). In this case, such applicant shall file, within four months from the decision, a written document wherein the reason for appeal is described (§108). A Board of Appeal consisting of at least three qualified members reviews an appeal (§6). The number of filed requests for appeal in

2015 was 864 (excluding requests for trial against the decision on an objection; EPO Annual Report 2015).

The Examining Divisions shall re-examine the decision of refusal within three months from the filing of such a request. If they decide not to change the decision, a Board of Appeal shall review the case. If the Board of Appeal overturns the decision, the application of the invention shall be remanded back to the Examining Divisions, and be examined normally by the same examiners (§111, GL C V 14).

In order to ensure uniform application of the law, or if a point of law of fundamental importance arises, the Board of Appeal shall refer any question to the Enlarged Board of Appeal (§112(1)).

A Board of Appeal shall make a final judicial determination, which differs from JP and EP.

§ 106 Decisions subject to appeal

(1) An appeal shall lie from decisions of the Receiving Section, Examining Divisions, Opposition Divisions and the Legal Division. It shall have suspensive effect.

§ 112 Decision or opinion of the Enlarged Board of Appeal

(1) In order to ensure uniform application of the law, or if a point of law of fundamental importance arises:

(a) the Board of Appeal shall, during proceedings on a case and either of its own motion or following a request from a party to the appeal, refer any question to the Enlarged Board of Appeal if it considers that a decision is required for the above purposes.

V. Rescission of patent

<JP>

(1) Opposition

As a system for filing an opposition to granted patent was resumed in April 1, 2015, any party may file such opposition within six months from the publication date of patent gazettes (§113).

In this system, unlike a trial for invalidation, a reason for opposition shall not lie in the fact that an application filed by a person who does not have a right to obtain a patent has been granted (§113). The fee payable to the JPO is the sum of 16,500 yen + 2,400 yen × number of claims.

A panel of three or five trial examiners shall review a request for opposition (§114(1)).

If the panel intends to make a decision of rescission regarding the invention, the chief trial examiner shall notify the patentee of the reason for rescinding the patent (§120-5(1)).

The patentee may file a written opinion and request a correction. Such correction shall be limited to the restriction of the scope of claims, etc. (§120-5(2)).

The patentee may appeal against the decision of rescission with the Tokyo High Court, while the petitioner may not appeal against the decision to maintain the patent (§114(4)(5), §178(1)).

(2) Invalidation

An interested person may file a petition for trial for invalidation of a patent. This petition is also available after the lapse of a patent (§123(1), (3)). The fee payable to the JPO is the sum of 49,500 yen + 5,500 yen × the number of claims.

The chief trial examiner shall serve to the patentee a copy of the written request to give the patentee an opportunity to submit a written answer (§134(1)).

The patentee may file a written answer and request correction. Such correction shall be limited to the restriction of the scope of claims, etc. (§134-2(1)).

The petitioner for a trial for patent invalidation and the patentee may appeal against the decision with the Tokyo High Court (§178(1)).

(Trial for patent invalidation)

§ 123 (1) Where a patent falls under any of the following, a request for a trial for patent invalidation may be filed. In the event of two or more claims, a request for a trial for patent invalidation may be filed for each claim...

<U.S.>

Under the AIA, the inter partes reexamination was replaced with the post-grant review and the inter-partes review, and the supplemental examination was also introduced.

(1) Ex-parte reexamination (EPR)

Any person at any time may file a request for reexamination of patent claims based on the cited patents or prior arts (§301, §302). The fee payable is 12,000 dollars (R1.20(c)). The number of requests filed for reexamination in FY2015 was 278, among which 56 requests were filed by patent owners (USPTO PAR FY2015).

If the director determines that a substantial question of patentability affecting any claim of the patent concerned is not raised by the request, the decision will be final and nonappealable (§303(a), (c)).

If the director determines to start a reexamination, a copy of the determination shall be sent to the patent owner, and the examiner will start the reexamination. A patent owner may file a statement on question and amendment to his/her patent within two months (§304, R1.515, R1.530).

A patent owner may file a petition for court review with respect to any decision adverse to the patentability (§306).

(2) Inter-partes review (IPR)

All real parties in interest may file a request for inter partes review, excluding the periods of a request for post-grant review and a trial (§311). The fee payable is 23,000 dollars. The number of requests for such review in FY2015 was 1,737 (USPTO PAR FY2015).

The reason for such requests shall be limited to novelty or obviousness based on the patent or publications (§311(b)). The evidentiary standard is a “preponderance of the evidence” (§316(e)).

A patent owner may file a preliminary response to a petition (§313). Excluding cases where the director determines a “reasonable likelihood” for a petitioner to win the trial, the start of inter partes review shall not be approved (§314(a)). The level of the standard for determining the “reasonable likelihood” is lower than the level in the post-grant review: “more likely than not.” The decision whether or not review starts will be final and nonappealable (§314).

A petitioner may not claim a reason of request for review (§315(e)).

Following the determination of starting an inter partes review, a panel of at least three administrative patent judges shall review the case (§316(c), §6). A patent owner shall be given an opportunity to submit a written opinion and amendment (§316(a)(13), (d)), and limited recovery shall be permitted (§316(a)(5)). A party dissatisfied with the final written decision may appeal the decision (§319). Settlement proceedings are also stipulated (§317).

(3) Post-grant review (PGR)

All real parties in interest may file a petition for a post-grant review within nine months from the date of the issuance of the patent in order to cancel the patent based on the reason for invalidity of the patent (other than the requirement to disclose the best mode) (§321). The evidentiary standard is “a preponderance of the evidence,” as is the case with IPR (§326(e)). The fee payable is 30,000 dollars. The number of petitions filed in FY2015 was 11, since this system targets patents with an effective filing date from March 16, 2013 (USPTO PAR FY2015).

Excluding a case where at least one claim is unlikely to have patentability (more likely than that), the director shall not give approval to start an inter partes reexamination (§314(a)). Limited discovery shall also be permitted (§326(a)(5)).

Rules for estoppel, review by a panel of administrative patent judges, preliminary response, giving an opportunity for amendment, settlements and appeal are the same as those for inter-partes review.

(4) Transitional Program for Covered Business Methods (CBM)

In response to requests for filing a suit concerning the effectiveness of a business method patent under patent laws before the revision, the Transitional Program for Covered Business

Methods (CBM) came into force as a temporary program until September 15, 2020 (R42.300(d)).

A person who is claimed to infringe a patent right may file a request for a trial after nine months from the issuance of the patent based on a statutory invention, novelty, inventive step and requirements for description as grounds (R43.302-43.304). The fee payable is 30,000 dollars. The number of requests filed for the program in FY2015 was 149 (USPTO PAR FY2015).

(Supplemental examinations)

A patent owner may request supplemental examination of a patent in the Office to consider, reconsider, or correct information believed to be relevant to the patent, in accordance with such requirements as the Director may establish (§257).

§ 302 Request for reexamination.

Any person at any time may file a request for reexamination by the Office of any claim of a patent on the basis of any prior art cited under the provisions of section 301.

§ 311 Inter partes review.

(a) IN GENERAL.—Subject to the provisions of this chapter, a person who is not the owner of a patent may file with the Office a petition to institute an inter partes review of the patent. The Director shall establish, by regulation, fees to be paid by the person requesting the review, in such amounts as the Director determines to be reasonable, considering the aggregate costs of the review.

§ 321 Post-grant review.

(a) IN GENERAL.—Subject to the provisions of this chapter, a person who is not the owner of a patent may file with the Office a petition to institute a post-grant review of the patent. The Director shall establish, by regulation, fees to be paid by the person requesting the review, in such amounts as the Director determines to be reasonable, considering the aggregate costs of the post-grant review.

<EP>

[Opposition]

Any party may file an opposition to a granted patent within nine months from the publication date of patent gazettes (§99). The fee payable is 785 euros.

Such opposition may be filed based on the requirements of patentability under the provisions of § 52-57 (novelty, inventive step, industrial applicability, etc.), enablement requirements and new matters as grounds (§100). A deficiency in claims shall not be grounds for filing such opposition but be grounds for amended claims (GL D III 5, V 5). The number of approved oppositions filed in 2015 was 3,713, in which around 70% of related patents have been canceled or maintained through correction (EPO Annual Report 2015).

The Opposition Divisions, consisting of three technically qualified examiners, shall examine the opposition. If necessary, a legally qualified examiner may take part in such examination (§101, GL D II 2).

The Opposition Divisions shall give to a patent proprietor an opportunity to file a written opinion and correction. If these are filed, the Opposition Divisions shall give to the petitioner an opportunity to present a counterargument (R79(1), (3)).

If the Opposition Division considers it expedient, or if any party requests oral proceedings, oral proceedings will be held before the Opposition Division (GL D VI 1).

Before making a decision to maintain the corrected European patent, the Opposition Divisions shall notify the party of the authentic text of the patent and give the party an opportunity to file a written opinion (R82(1)).

An appeal may be sought against decisions of the Opposition Divisions (§106(1)).

The EPO is now preparing for the establishment of the Unified Patent Court in which a single court will handle litigation involving European patents.

§ 99 Opposition

(1) Within nine months of the publication of the mention of the grant of the European patent in the European Patent

Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations...

VI. Correction of patent

<JP>

A patentee may file a request for trial to correct the scope of claims and other elements. Such correction shall be limited to the restriction of the scope of claims, etc., and shall provide patentability (§126(1)(7)). During the proceedings for opposition or a trial for invalidation of a patent, such correction may be admitted in the process of these proceedings (§120-5(2), § 134-2(1)).

(Trial for correction)

§ 126 (1) The patentee may file a request for a trial for correction with regard to the correction of the description, scope of claims or drawings attached to the application; provided, however, that such correction shall be limited to the following:

- (i) restriction of the scope of claims;
- (ii) correction of errors or incorrect translations; and ...

<U.S.>

Whenever any patent is deemed inoperative or invalid, the patentee may file a request for reissue of the patent (§251(a)).

Unlike JP or EP, a reissued patent shall be granted enlarging the scope of the claims of the original patent within two years from the grant of the original patent (§251(d)). Any person who made anything patented by the reissued patent before the grant of reissued patent may continue to use the specific thing (§252; Intervening right).

§ 251 Reissue of defective patents.

(a) IN GENERAL.—Whenever any patent is, through error, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Director shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the

unexpired part of the term of the original patent. No new matter shall be introduced into the application for reissue.

(d) REISSUE PATENT ENLARGING SCOPE OF CLAIMS.—

No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent.

<EP>

Under the EPC 2000, a patent proprietor may file a request for revocation of the patent or limitation by an amendment of the claims (§105a-105c, R92).

During the proceeding for opposition, such amendment may be admitted in the process of the proceeding (R79(1)).

§ 105a Request for limitation or revocation

(1) At the request of the proprietor, the European patent may be revoked or be limited by an amendment of the claims. The request shall be filed with the European Patent Office in accordance with the Implementing Regulations. It shall not be deemed to have been filed until the limitation or revocation fee has been paid.

VII. Patent right

1. Effect of patent right and infringement

The technical scope of a patented invention shall be determined based on the statements in the scope of claims attached to the application, and the meaning of each term used in the scope of claims shall be interpreted in consideration of the statements in the description and drawings attached to the application (§70(1)(2)).

A patentee shall have the exclusive right to work the patented invention as a business (§68).

Where a patented invention uses another person's patented invention, the patentee may not work the patented invention as a business (§72).

“Working” an invention of a product means producing, using, assigning, exporting or importing, or offering for assignment of the product. “Working” of an invention of producing a product means the acts of using, assigning, exporting, importing, or offering for assignment, etc. the product produced by the process (§2(3)). The revised Patent Act in 2008 introduced the provision regarding “exporting.” The provision regarding “acts of possessing” is stipulated as an indirect infringement (§101(iii), (vi)).

A patentee may demand a person who infringes the patent right to stop such infringement and claim against the infringer compensation for damage (§100, §102, §103, Civil Code §709).

A trial for patent invalidation may be raised as a defense concerning the infringement of a patent right (§104-3).

(Effect of patent right)

§ 68 A patentee shall have the exclusive right to work the patented invention as a business; provided, however, that where an exclusive license regarding the patent right is granted to a licensee, this shall not apply to the extent that the exclusive licensee is licensed to exclusively work the patented invention.

(Technical scope of patented invention)

§ 70 (1) The technical scope of a patented invention shall be determined based upon the statements in the scope of claims attached to the application.

(2) In the case of the preceding paragraph, the meaning of each term used in the scope of claims shall be interpreted in consideration of the statements in the description and drawings attached to the application.

<U.S.>

In literal infringement of patent claims, it shall be determined whether or not the target product fulfills all elements of the claims (All Elements Rule). A court judge, not a juror, shall interpret such claims.

A claim defined by “means” shall be construed to cover the corresponding specific structure, etc. described in the specification and the equivalents thereof (means plus function: §112(f)).

Every patent shall include a grant to the patentee of the right to exclude others from making a product of the patent invention (§154(a)(1)). Whoever without authority makes, uses, offers to sell, or imports any patented invention within the United States infringes the patent (§271(a)). Importing a patented invention is deemed to be selling if selling such invention is negotiated or contracted in the United States. Acts of importing products made by a patented process into the United States and selling such products in the United States infringe the patent (§271(g)).

Upon finding for the claimant, the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer (§284).

Several courts may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent (§283). In the case of e-Bay (May 15, 2006), the Supreme Court held that the plaintiff should prove the four principles of equity (irreparable damage that plaintiff suffers, etc.).

Patent invalidation proceedings were originally permitted as a defense in litigations of infringement, but new proceedings (e.g., reexamination) have been developed. The decision of invalidation in litigations of infringement will cover the third party.

§ 271 Infringement of patent.

(a) Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States, or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

§ 283 Injunction.

The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.

§ 284 Damages.

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

<EP>

A European patent shall confer on its proprietor from the date of the grant of the patent, in each Contracting State in respect of which it is granted, the same rights as would be conferred by a national patent granted in that State, and any infringement of a patent shall be dealt with by national law (§64(1), (3)).

The extent of the protection conferred by a patent shall be determined by the claims, and the description and drawings shall be used to interpret the claims (§69(1)). If the subject-matter of the patent is a process, the protection conferred by the patent shall extend to the products directly obtained by such process (§64(2)).

§ 64 Rights conferred by a European patent

(1) A European patent shall, subject to the provisions of paragraph 2, confer on its proprietor from the date on which the mention of its grant is published in the European Patent Bulletin, in each Contracting State in respect of which it is

granted, the same rights as would be conferred by a national patent granted in that State.

§ 69 Extent of protection

(1) The extent of the protection conferred by a European patent or a European patent application shall be determined by the claims. Nevertheless, the description and drawings shall be used to interpret the claims.

(Reference)

<Germany>

A patent shall have the effect that the proprietor of the patent alone shall be entitled to use the patented invention within the scope of the law in force. All third parties shall be prohibited from producing, offering, putting on the market, using, importing and possessing a patented product. “Exporting” is not defined but deemed to be covered by “putting on the market.” The protection covers offering, placing on the market or using, importing and possessing a product that is produced directly by a patented process (§9).

The extent of the protection conferred by the patent shall be determined by the patent claims. The description and the drawings shall be used to interpret the patent claims (§14). These provisions are the results of the revision in line with the EPC §69(1).

Any person who infringes a patent invention intentionally or negligently shall be obliged to compensate the aggrieved party for the damage caused (§139(2)). The proprietor of the patent may sue the infringer for cessation of the infringement (§139(1)).

As authorities are strictly separated between the judiciary and government, actions for the revocation of patents shall fall under the exclusive jurisdiction of the Federal Patent Court (§65(1)).

2. Indirect infringement

A legal dispute concerning indirect infringement of an information system patent has been attracting attention, focusing on the working of part of the patent constitution by multiple entities.

<JP>

[Indirect infringement on exclusive articles]

Acts including the production of any product to be used exclusively for producing a patented product, or the process of producing thereof as a business, shall be deemed to constitute infringement of a patent right (§101(1)(i), (iv)).

[Indirect infringement on non-exclusive articles]

Acts of producing, assigning, importing, or offering for assignment, etc. any product (excluding those widely distributed within Japan) to be used for a patented process and indispensable for the resolution of the problem by the invention, knowing that the invention is a patented invention and the product is used for the working of the invention as a business, shall be deemed to constitute infringement of the patent right (§101(1)(ii), (v)).

If more than one person has inflicted damages on others by their joint tortious acts, each of them shall be jointly and severally liable to compensate for those damages (Civil Code§719). However, in this case, a close relationship between these people who have acted jointly shall be required.

<U.S.>

[Inducement]

Whoever actively induces infringement of a patent shall be liable as an infringer (§271(b)). The requirement of the term “actively” shall be that the infringer knew or should have known that his/her actions would induce infringement.

Where there has been no direct infringement by an induced person alone, the person may not be liable for inducing infringement (decision on the *Limelight v. Akamai* case).

[Contributory infringement]

Whoever offers to sell, etc. within the United States a component constituting a material part of the invention, knowing the same to be especially made for use in an infringement of such patent shall be liable as a contributory infringer (§271(c)). While this provision is similar to the provision in Japan concerning indirect infringement on exclusive articles, the requirement in the U.S. is that the contributor “knows” the patent.

Similar to indirect infringement in Japan, the requirement of contributory infringement in the U.S. is deemed to be the existence of direct infringement acts (dependency theory).

[Assembling components outside the United States]

Whoever exports or causes to be exported a set of components of a patented invention that can be assembled in the United States shall be liable as an infringer (§271(f)).

§ 271 Infringement of patent.

(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

(c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

(Reference)

<Germany>

All third parties shall be prohibited from providing a means relating to an essential element of the patented invention for use, knowing that the means is suitable for use of the patented invention. However, this provision shall not apply if the means are generally available commercial products (§10).

3. Prior users' right

<JP>

A person who has worked an invention before filing the invention (prior-use right holder) shall have a non-exclusive license on the patent right. The prior-use right holder shall have made an invention without knowledge of the content of the invention, or shall have learned the invention from another person who made an invention. A person who is preparing for the working of the invention shall also have a non-exclusive license (§79)

A non-exclusive license may be transferred in cases including those where the business involving the working of the relevant invention is transferred (§94(1)).

<U.S.>

The scope of the prior use was limited to business methods, but the limitation has been removed under the AIA.

If a person commercially used articles infringing a patent, such person shall be entitled to a defense for the use. However, such person shall be required to prove that the commercial use occurred at least one year before the earlier of either the effective filing date of the patent or the date of the disclosure under §102(b) (§273(a)).

A premarketing regulatory review and a nonprofit laboratory use fall under commercial use (§273(c)).

A person may not assert a defense under this section if the subject matter on which the defense is based was derived from the patentee or persons in privity with the patentee (§273(e)(2)).

The right to assert a defense shall not be transferred to another person except good-faith assignment of the entire enterprise, and the site on which the patent is used shall be limited (§273(e)(1)).

(Reference)

<Germany>

A person who had already begun to use an invention in Germany, or had made the necessary arrangements for so doing at the time the application was filed, shall have the right to use the invention. This right may be inherited or transferred only together with the

business. The invention shall be that obtained by the person irrelevant to the proprietor of the invention (§12).

4. Doctrine of equivalents

<JP>

In the Ball Spline Bearing case (1998), the Supreme Court held the criteria of determining the doctrine of equivalents. The decision showed that the doctrine of equivalents shall be applied if the following five requirements are satisfied in terms of the different element between the patented invention and the accused product:

- (i) The element is not an essential part of the patented invention;
- (ii) Even if the element is replaced in the accused product, the object of the patented invention can be attained with the same meritorious effect;
- (iii) A person skilled in the art could have easily conceived the replacement in [ii] at the time the product was made;
- (iv) The accused product is not identical to publicly-known technology at the time of filing, and the skilled person could not have easily conceived the product from publicly-known technology at the time of filing; and
- (v) There are no particular circumstances, for example, to exclude the product from the claims in the prosecution of the application.

Item (ii) corresponds to possibility of replacement, (iii) to ease of replacement, (iv) to defense of free technology, and (v) to estoppel.

<U.S.>

In the Graver Tank Case (1950), the Supreme Court held the criteria of the doctrine of equivalents. The decision showed that the doctrine of equivalents shall be applied if the following three requirements are satisfied in terms of the different elements between the patented invention and the accused product. This corresponds to the second requirement in JP.

1. The difference has substantially the same function;
2. The difference has substantially the same way; and
3. The difference obtains substantially the same result.

In the Festo case (2002), the Supreme Court showed that prosecution history estoppel is presumed, in principle, if the claims are narrowed. This corresponds to the fifth requirement in JP.

<EP>

The protocol for interpretation of §69 (Extent of protection) stipulates that the extent of protection shall not be interpreted to be that the scope is exactly what the terms say in the claims, or that it can be expanded to the degree that the proprietor intends based on the description. This is a result of the coordination of opinions between the UK and Germany.

To make the provision clearer, EPC 2000 stipulates that equivalent elements shall be considered in interpreting the extent of protection (Protocol on the Interpretation of Article 69§2).

Protocol on the Interpretation of Article 69

§1 General principles

Article 69 should not be interpreted as meaning that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Nor should it be taken to mean that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patent proprietor has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patent proprietor with a reasonable degree of legal certainty for third parties.

§2 Equivalents

For the purpose of determining the extent of protection conferred by a European patent, due account shall be taken of any element which is equivalent to an element specified in the claims.

(Reference)

<Germany>

Determination on the effectiveness of a patent shall be exclusively conducted by the Federal Court of Justice, and no infringement court

may make a decision on the effectiveness of a patent concerning literal infringement.

Concerning the doctrine of equivalents, in the Formstein case, the Supreme Court ruled in 1986 that a person skilled in the art must be able to see the same effect of the target element as the means specified in the claim, and that a defense claiming that the target element has been publicly known by the technical standard shall be permitted.

In this case, under the §69 protocol, the court ruled that prosecution history shall not be used as grounds for estoppel.

VIII. Conclusion

As described above, the patent systems in JP, the U.S. and EP has been dramatically harmonized compared to those 40 years ago. However, differences in legal systems, industrial structures, economic environments, and history of patent system development between countries and regions cause a considerable number of differences in patent systems and their operations in these countries.

Meanwhile, the ratio of global patent applications filed by applicants in JP, the U.S. and EP (the ratio of patent applications filed not only with an office in one country, but also with another office in other country) has been growing year by year. To appropriately protect the rights of applicants and increase user-friendliness, we hope that further harmonization of patent systems will advance.

<<Abbreviations and other information>>

JP: Japan

URL: <http://www.jpo.go.jp/>

JPO: Japan Patent Office

US: The United States of America

USPTO: United States Patent and Trademark Office

URL: <http://www.uspto.gov/>

USC: United States Code Title 35-Patents

37CFR: Title 37 - Code of Federal Regulations Patents, Trademarks,
and Copyright

PTAB: Patent Trial and Appeal Board, USPTO

MPEP: Manual of Patent Examining Procedure

AIA: The Leahy-Smith America Invents Act (September 16, 2011)

USPTO PAR FY2015: UNITED STATES PATENT AND TRADEMARK
OFFICE PERFORMANCE AND ACCOUNTABILITY REPORT
FISCAL YEAR 2015

EP: Europe

EPC: European Patent Convention

EPO: European Patent Office

URL: <https://www.epo.org/index.html>

WIPO: World Intellectual Property Organization

PCT: Patent Cooperation Treaty

PLT: Patent Law Treaty

PPH: Patent Prosecution Highway

§: Article number in conventions or codes

R: Article number in regulations

GL: Examination Guidelines for Patent and Utility Model in Japan
(revised in October 2015) or Guidelines for Examination in the
EPO

MPEP: Manual of Patent Examining Procedure (US)

HB: Examination Handbook (JP)

USPTO PAR FY2015: USPTO Performance and Accountability
Report Fiscal Year 2015

Notes:

- 1: For better understanding, some articles may be partially omitted.
- 2: Fees shown in this document are as of October 1, 2016.
- 3: The notation of the text “ § 29-2” means “ § 29bis”.