

Part II Rights related to Novel Creations

Chapter 1 Patent Rights

Section 1 Creation of Right

Subsection 1 Owner of Right

Item 1 Inventor and Successor

1. Inventor System¹

The legal subject who can obtain a patent right is limited to the true inventor and the successor to his right to obtain a patent. This principle is called the inventor system. Although there is no provision that clearly stipulates the inventor system, Section 29 of the Patent Law provides that “any person who has made an invention may obtain a patent therefor,” which suggests the inventor system. Also, an application filed by a person who is not the inventor or the successor of the right to obtain a patent is rejected (Section 49 (6) of the Patent Law), and that could be a reason for invalidation of a patent even if it has been registered (Section 123 (1) (vi) of the Patent Law). These provisions can be regarded as implicitly implementing the inventor system.

The inventor system is regarded as a self-evident truth today but, historically, it did not necessarily exist as a universal principle. Another type of idea is the applicant system². Particularly for a less-industrialized capitalistic country, the main purpose of

¹ Regarding the inventor’s rights, see *Katsuya Tamai, Tokkyo Hou Ni Okeru Hatsumeisha Shugi* (The Inventor System under the Patent Law) (1) (2), Journal of the Jurisprudence Association, The University of Tokyo, Vol. 111, No. 11: p. 1593 and No. 12: p. 1824. According to this paper, the question of whether or not the inventor system is adopted is determined by whether or not the inventor’s right of recovery is recognized. However, historically, monopolies in medieval times were granted irrelevant to whether the person was the inventor or not, and as mentioned earlier, patent rights came to be granted only to inventors by establishment of the “true and first inventor” system under the Statute of Monopolies in Britain in 1624. When compared to the earlier systems in which monopoly was granted even to those other than the inventors, this system can be referred to as the inventor system, and the inventor’s right of recovery can be considered as a further enhanced version of inventor’s rights. The inventor system and the applicant system are not necessarily contradictory to each other, and it is possible to have them coexisting in an overlapping manner. In such case, a right is only granted to an applicant, but the applicant is required to be the inventor in filing the application. Most countries adopt this kind of system.

² The concept of the applicant system involves the idea of granting a patent to the first applicant regardless of who the true inventor is. The importation patent, which was adopted in many countries in the past, is based on an idea similar to the applicant system. That is, a patent is granted to the first person who imports an invention into the country and files an application for it, regardless

the patent law is to help it emerge from industrial backwardness. To that end, it is necessary to have people file applications for inventions that are hidden from society or made overseas to promptly raise the technological level of the country, instead of emphasizing protection of inventors. From such perspective, it may be a good idea to adopt a system that promotes filing of applications without placing emphasis on the inventors' rights. However, as countries' technological levels become higher, there is a stronger tendency to raise their technological levels through protecting inventors, and at present, the inventor system has become the world's mainstream³.

Japan adopted the inventor system in early days. It had already adopted the system in the Patent Monopoly Act of 1885 (Dajoukan Ordinance No. 7), which is virtually Japan's first patent law. Pursuant to the Act, only the inventor or his assignee could file an application for a patent monopoly (Sections 1 and 4 (1)), and a patent monopoly obtained by a person other than the inventor or the assignee was invalidated (Section 14 (1)). The reason why the inventor system was adopted at such an early stage is said to be because reference was made to the legal system of the U.K, but this fact is not certain. In any case, it is very unlikely that the idea of the inventor system was completely accepted from the beginning, since the employees' invention system, which is closely related to the inventor system, was not developed until later on. Nevertheless, the idea of the inventor system has firmly taken root at present, both in terms of legislation and practice.

2. Inventor

An inventor is a natural person who truly made an invention. An invention is a factual act, so, as a matter of course, a person having no legal capacity can also become an inventor.

of who made the invention.

³ There seem to be only a few countries that adopted the idea of the applicant system in a complete form. There is no doubt that there is a strong overall tendency to put more emphasis on the inventor's rights.

At the same time, an inventor only refers to a person who actually took part in creating the invention, so a mere assistant, advisor, fund-provider, or a person who merely gave orders does not constitute an inventor¹.

In practice, there may be many cases where it is extremely difficult to determine the inventor. However, that is quite usual for determining the creator of intellectual property and cannot be helped.

Next, there is the question of whether a legal entity can become an inventor.

The Patent Law of Japan only assumes natural persons as inventors, so under the current law, a legal entity itself cannot become an inventor². Section 36 (1) of the Patent Law provides that the request for a patent application must state the “*shimei* (personal name) or *meishou* (corporate name) of the applicant” and the “*shimei* of the inventor,” which means that the applicant can also be a legal entity, but the inventor is limited to a natural person. In addition, the provisions of the main paragraph of Section 29 (1), Section 49 (6), and Section 123 (1) (vi) of the Patent Law also suggest an interpretation that the inventor is limited to a natural person³. The issue of the so-called inventive ability of a legal entity is discussed later on (Item 3, 6. “Inventive Ability of a Legal Entity”).

¹ The court ruled that a person who merely received instructions and drew up a manufacturing drawing for equipment relating to the invention is not an inventor in the Tokyo District Court decision on April 16, 1979, The Law Times Report, No. 395: p. 155 (the Grain Processing Method case), and the court held that a person who proposed a task and a simple idea cannot be regarded as a creator in the Tokyo High Court decision of December 24, 1991, Court Decision Journal, No. 1417: p. 108 (the Automatically-Boiled Shrimp case) ([Annotation] Katsuya Tamai, Jurist, No. 1050: p. 180). Also, a court held that a person who conceived a concrete idea and a person who materialized this idea and completed the invention are joint inventors in the Tokyo High Court decision of April 27, 1976, Court Decisions in Suits against Appeal/Trial Decisions, 1976: p. 449 (the Mahjong-Rule Pachinko case).

² In the Tokyo District Court decision on March 16, 1955, Civil Court Decisions by Lower Courts, Vol. 6, No. 3: p. 479 (the Rubber Swimming Bladder case) ([Annotation] Nobuo Monya, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions), Case 2; Haruo Gotou, *Tokkyo Hanrei Hyakusen* (Second Edition), Case 11; Koue Toyosaki, *Shouji Hanrei Kenkyuu* (Study on Commerce-related Court Decisions) Fiscal 1955: p. 210) the court held as follows: “It is clear from Article 1 of the Utility Model Law that Japan’s Utility Model Law does not adopt ... the applicant system as adopted in some foreign countries’ legislation, and at the same time, the person who can obtain registration of a utility model is limited to one who conducted an actual act of devising. Accordingly, the concept of a device by a representative or a device by an organization is not acceptable, and a device by a legal entity is not permissible. ... Indeed, something like a device by a factory is assumable. It is a device that was gradually created with cooperation of many employees by using already-existing factory facilities and experiences, devised sometime or other by someone or other, whose creator cannot be specified. Under Japanese law, nobody would be able to obtain a utility model registration regarding such device by a factory whose creator cannot be specified.”

³ For details, see Nakayama, *Chuukai Tokkyo Hou* (Annotated Patent Law), Vol. 1: p. 308 [Nakayama].

3. Right Granting System

The inventor can obtain a patent right as long as his/her invention meets the statutory requirements, and the question of whether or not to grant a patent is not a judgment that is left to the discretion of the State. Therefore, a person who has an objection to the administrative disposition given by the JPO can dispute the validity of that disposition in court. To be more specific, a person can appeal to the Tokyo High Court against the decision given in the JPO's appeal/trial (Section 178 of the Patent Law). This is called the right granting system.

The right granting system may be considered as a self-evident truth today, but that was not necessarily the case in the course of history. In the past, a patent (monopoly) was granted as a privilege by the monarch. However, as explained in Part I, Chapter 2, "History of Industrial Property Law," the world's mainstream became inclined to place more emphasis on the inventor's rights, and at present, the right granting system has globally taken root.

4. First-to-File System

A person who made an invention justifiably acquires certain rights related to the invention (inventor's rights) without conducting any formal act. The core part of the inventor's rights is the right to obtain a patent (Sections 33 and 34 of the Patent Law). However, a patent right itself is not automatically granted to the inventor, but is granted to the inventor who filed the application first (Section 39 of the Patent Law). As a matter of course, the principle of the inventor system prevents a patent from being granted to a person who files another person's invention without succeeding to the right to obtain a patent for it (Sections 49 (6) and 123 (1) (vi) of the Patent Law)¹.

In contrast to this first-to-file system, the method of granting a patent to the person who invented first is called the first-to-invent system, and is adopted by the United States². Most of the countries in the world adopt the first-to-file system, but

¹ Such filing by a person who does not have the right to file a patent application is called a misappropriated application, and the person who filed it is called an applicant of a misappropriated application. Incidentally, *bounin* (misappropriated) is an expression used in the Ming regulations of China, referring to an act of making another person's thing one's own; in other words, embezzlement. The term *bounin* was also used in the Japanese penal code in the past, specifically, in Vol. 3 *Zokutou* (Theft) of *Shinritsu Kouryou* (Platform of New Regulations) (Pandect of 1870: p. 572), and "*kasumetori* (stealing another's thing while that person is not looking)" was printed in kana as the term's reading. The term also appeared in Sections 10 and 11 of the old Patent Law (1921), but not in the current law. The term is now only used in patent studies.

² The United States is using the first-to-invent system as of 1998, but the right is not always granted to the first inventor. A patent is not granted, in principle, if a publicly known invention already

special attention is required when filing a patent application in the United States, which adopts the first-to-invent system.

5. Successor

A patent application can also be filed by a person who has succeeded to the right to obtain a patent from the inventor (Section 33 (1) of the Patent Law).

existed for more than one year prior to the date of filing. In other words, the novelty of an invention may be denied unless an application for it is filed within one year from the completion of the invention (35 U.S.C. 102 (b); the so-called “one year rule”).

As Canada and the Philippines shifted from the first-to-invent system to the first-to-file system in recent years (the Philippines adopted the first-to-file system when its intellectual property law was established to systematize intellectual property in 1997; the law went into force in January 1998), the only country using the first-to-invent system at present is the United States. The United States also seemed likely to shift to the first-to-file system, but then the Clinton administration decided not to change its first-to-invent system. However, amidst the progress of economic globalization, the fact that the United States alone is using a unique system is not favorable either for the world economy or the United States. Nevertheless, it is difficult to fundamentally amend the basic part of a system once it is well-established. The question of whether the first-to-file system or the first-to-invent system is more appropriate in theory is subject to controversy (Toyosaki, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 81; Hashimoto, *Tokkyo Hou* (Patent Law): p. 17; Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 174; Morioka, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 23; Mitsuishi, *Tokkyo Hou* (Patent Law): p. 12). In actuality, however, it is practically impossible to keep on using the first-to-invent system in the future due to its lack of legal stability, the difficulty in determining the first inventor, and the complicated procedures involved (such as the interference system). Therefore, there seems to be basically no other way but to harmonize the world’s systems by the world-wide adoption of the first-to-file system.

The successor only succeeds to the right to file a patent application as a property right, and the inventor's civil rights (inventor's personal rights) remain with the inventor. Therefore, the successor must describe the name of the true inventor on the request (Section 36 (1) (ii) of the Patent Law). However, even if the successor writes a name of a person other than the true inventor in the request, the JPO would not examine who the true inventor is, and that does not constitute a reason for invalidation after the registration, so such a patent would be treated as valid¹. Nevertheless, as a separate issue, there may be cases where the true inventor's civil rights are infringed, and his damages would have to be compensated, as that act would be a tort by reason of infringing personal rights.

See Subsection 4 "Legal Status before Registration" of this section regarding various issues relating to succession to the right to obtain a patent.

An inventor has a right to file a patent application in Japan and a right to file a patent application in foreign countries, and is able to transfer both of those rights². Whether to transfer one of them or to transfer both of them is specified by contract. If there is no contract that clearly indicates this point, the reasonable intentions of the parties concerned should be judged by considering the various circumstances.

Item 2 Joint Inventor

¹ When the old Patent Law was in force, there was a controversy over whether a case in which a successor to the right to obtain a patent lists his/her own name as the inventor on the request would be considered as a misappropriation or would be merely considered as a deficiency in the formality of the request, thus not affecting the validity of the patent right. See Nakayama, *Tokkyo Houshiki Mondai* (Patent Formality Issues): p. 204.

² Special attention is required when filing an application in the United States. In the United States, transfer of the right to file a patent application is not allowed, so the inventor himself/herself must file the application first. Therefore, if a right to file a patent application in the United States is transferred in Japan, the inventor must first file the application (the important thing is to file the application under the inventor's name, and the payment, etc. can be made by a different person) and then transfer the right to that pending application.

When multiple persons jointly make an invention, the inventors' rights are shared among all of the inventors, and a patent application on the invention can only be filed by all of those who jointly own the rights (Section 38 of the Patent Law). Therefore, if even one of the joint owners of the rights opposes the filing, the other owners cannot file a patent application for the invention. As the right to file a patent application has a property-like characteristic, this kind of consequence may be problematic, but it cannot be helped under the current law. From a legislative approach, a possible solution may be to approve a right to demand sale by the recalcitrant owner to the other joint owners according to their respective shares¹.

A joint inventor must satisfy the same requirements as those for a sole inventor, so a mere assistant, advisor, fund provider, or a person who only gave orders is not a statutory joint inventor. However, it is extremely difficult to express the specific criteria for a joint inventor in words².

Problems related to joint invention mainly occur in the case of an employees' invention or an invention made in joint R&D. The former will be discussed in detail in Item 3 "Employees' Inventions."

In the case of joint R&D, troubles occur easily and it is often difficult to determine the degree of contribution made by each joint inventor afterwards. Accordingly, it is desirable to conclude a contract concerning the handling of the results of the joint R&D in advance³.

¹ The right to file a patent application involves various issues that impede it from being simply treated as a property right. Examples of such problems are: when one of the joint owners of the right believes that the invention should not be monopolized by an individual, but instead should be made available for all people to exploit, whether or not it is possible to ignore that intention; and even if a right to demand sale were approved, what measures should be taken if one of the joint owners of the right insists on filing a patent application, but another owner insists on keeping it a secret as know-how.

² For relatively detailed descriptions of the criteria, see Yoshifuji, *Tokkyo Hou* (Patent Law): p. 191; Takeo Sakano, "Hatsumeisha Kettei No Kijun (Criteria for Determination of an Inventor)," *Tokkyo Kanri* (Patent Management), Vol. 10, No. 11: p. 16; Enatsu, *Hiyousha Hatsumei Seido* (Employees' Invention System): p. 429. The court held that even if a person had conceived an invention, the person would be a joint inventor if he/she jointly materialized the invention in mutual cooperation with the other persons in the Tokyo High Court decision on April 27, 1976, Court Decisions in Suits against Appeal/Trial Decisions, 1976: p. 449 (the Mahjong-Rule Pachinko case).

³ Hideo Iijima, "Waga Kuni No Juugyousha Hatsumei No Kadai Wo Saguru (Identification of Problems relating to Japan's Employees' Inventions) (1)," *Tokkyo Kanri* (Patent Management), Vol. 25, No. 6: pp. 629-.

**Table of the Number of Applications Filed by Type of Applicant
(Individuals, Legal Entities, and Government Offices)**

Year	1995				1996			
	Individuals	Legal entities	Government offices	Total	Individuals	Legal entities	Government offices	Total
Type of applicant								
Type of application								
Patent								
Utility model								
Design								
Trademark								

The figures in parentheses indicate the numbers of applications filed by non-Japanese that are included in the total.

In the "Patent" row, the figures shown on top indicate the number of applications in a foreign language that are included in the numbers below them.

In the "Utility model" row, the figures shown on top indicate the number of applications filed under the old Utility Model Law that are included in the numbers below them.

Source: *Tokkyochou Kouhou* (JPO bulletin), Vol. 49 (1996 edition): p. 225.

Item 3 Employees' Inventions¹

1. Significance of the Employees' Invention System

(1) Encouragement of inventions

Today, industry has an extremely important significance for a nation, and the emergence of innovative technology can even affect the national economic conditions. Therefore, encouragement of inventions is one of the vital duties of a nation.

Organizations play an overwhelming part in developing inventions nowadays, both in terms of quality and quantity (regarding the status of application filings by individuals, legal entities, and government offices, see the table on the previous page). Thus, in order to encourage inventions today, it is necessary to give incentives for inventions or for investments in inventions both to employees and to their employers (including all types of employers such as legal entities, individuals, and government offices).

While the patent system itself is a legal system for encouraging inventions, the issue here is to investigate how the rights and profits arising from an invention should be allocated between employers and employees in order to maximize efficiency and equity in encouraging inventions.

The problems concerning the employees' invention system are not limited to those relating to patentable inventions. Similar situation can occur in cases of keeping an invention within the company as know-how without filing a patent application for it, proposing ideas for improvements or business ideas that are not patentable in nature, or cases involving copyright, such as with computer software. For a company, it would be desirable to deal with these situations under a consistent policy², but this part of the

¹ For details on this issue, see Monzou Takino, *Shiyounin Hatsumeiken Ron* (Discussion on Employees' Rights to Inventions) (Chuo University Press, 1966); Monzou Takino, *Hatsumeiken Rippou No Kenkyuu* (Study on Legislation concerning Rights to Inventions) (Chuo University Press, 1967); Monzou Takino, *Hatsumeiken No Gendaiteki Kadai* (Today's Problems relating to Rights to Inventions) (Chuo University Press, 1967); Nakayama, *Hatsumeishaken No Kenkyuu* (Study on Rights of the Inventor); Nakayama, *Chuukai Tokkyo* (Annotated Patent Law), Vol. 1: p. 286 [Nakayama]; and Hiroshi Enatsu, *Waga Kuni Ni Okeru Hiyousha Hatsumei Seido No Enkaku To Sono Houteki Kaishaku -- Kakkoku To No Hikakuhouteki Kousatsu* (History of the Employees' Invention System in Japan and Its Legal Interpretation -- Comparative Study between the Japanese System and the Systems of Other Countries) (Dai-ichi Hoki Publishing, 1990).

² The German employees' invention law (Gesetz über Arbeitnehmererfindungen, BGBl, 1957 I, 756) is also applicable to proposals of ideas of technological improvements (technische Verbesserungsvorschläge), which are unpatentable, in addition to patentable inventions (devices protectable as utility models). This is an issue of whether compensation should be provided for inventions as to which a monopoly power, that is, a patent, is granted (monopoly principle

book will only focus on the problems relating to the Patent Law.

(2) Related legal domains

This issue of employee's inventions is not only related to the Patent Law. The provisions are only stipulated in writing under one Section of the Patent Law, but it is a field that is deeply related to other legal domains.

<Monopolprinzip> or protection right principle <Schutzrechtsprinzip>) or should be provided for the inventive benefits brought about by the employees in excess of the obligations under the employment contract (fringe benefit principle <Sonderleistungsprinzip>). Ultimately, Germany takes the stance of the monopoly principle, but also takes into account the idea of the fringe benefit principle.

If the essence of the issue is considered to be in the relationship between the employer and the employee, the labor law aspect cannot be overlooked¹. In fact, many companies deal with this issue by labor contracts, collective labor contracts, and employment regulations.

Another perspective that cannot be disregarded is the aspect of the law of contract². The provisions on the employees' invention system under the Patent Law are very simple. So, any other matters are basically treated by contract, and this causes arguments over the interpretation or validity of the contract.

Thus, as shown from the above, the issue of the employees' invention system is an issue in a mixed domain of patent law, labor law, and law of contract³.

(3) Basic structure of Section 35 of the Patent Law

If an employee makes an invention, all of the rights to the invention originally belong to that employee. However, those inventions made by employees that are a part of an employee's present or past duties and come within the range of the employer's business operations are called employees' inventions. The employer justifiably obtains a non-exclusive license free of charge for such employees' inventions. With regard to employees' inventions, it is possible to stipulate in advance matters as to the transfer of the right to obtain a patent or the patent right itself to the employer or the grant of an exclusive license, and the employee has the right to receive remuneration in case such transfer is made or license is granted. On the other hand, the employer does not have a justifiable right to demand transfer, etc. of the employee's invention from the employee after the invention is made. This is the basic structure of Section 35 of the Patent Law. However, there still remain problems that need to be discussed in detail regarding the requirements and effects of an employee's invention.

2. History and Current Status of the Employees' Invention System

Provisions on employees' inventions were not stipulated in either the Provisional Regulations for Monopoly of 1871 or the Patent Monopoly Act of 1885. The first provisions on employees' inventions were established in the Patent Law of 1909. The Law adopted the inventor system in principle, but stipulated that unless

¹ In Germany, this issue is treated as a problem in a domain in between patent law and labor law.

² In the United States, this issue is mainly treated as an issue of contract, and discussions concern the interpretation or the validity of the contract.

³ Hideo Iijima, *Waga Kuni No Juugyousha Hatsumei No Kadai Wo Saguru* (Identification of Problems Relating to Japan's Employees' Inventions), *Tokkyo Kanri* (Patent Management), Vol. 25. No. 6: p. 622.

otherwise provided for, rights to an employee's invention would belong to the employer, and that it was invalid to make provisions in advance to transfer the patent for an invention that had not been made in the course of the employee's duty (Section 3). Considering the labor-management relationship in those times, it is not unnatural that there would be a provision that in principle attributed the rights to the employer.

A system that was almost the same as the current one was adopted in the Patent Law of 1921¹. That is, under that system the employer could obtain a license free of charge (non-exclusive license under the current law) for an invention made in the course of the employee's duties (employees' inventions under the current law), and if stipulated in advance, could be assigned the invention in return for a reasonable price (Section 14). Thus, a legal system that is almost the same as the current one was already established in 1921, but the actual practices of the system are not quite clear due to lack of related documents, statistics, and court decisions. Judging from the labor-management relationship of those times, it is assumable that employers had an advantage over employees in dealing with such cases.

The current law mostly follows the Law of 1921, but dramatic changes have been observed lately regarding the actual situation and people's awareness in dealing with this issue. Today, many companies, national research institutes, and universities have stipulations about employees' inventions. Yet, still now, the price paid for such inventions and employees' awareness of their rights are lower than in western countries. However, as this issue is deeply rooted in the domestic situation of each country, it is not appropriate to simply compare the status in western countries and that in Japan. In western countries, where job mobility is high and workers are protected by industry-wide unions, inventors are concerned about making their employers pay as high an amount as possible for their inventive abilities. In contrast, in Japan, where the system of employment is based on life-time employment and the seniority system, and many labor unions are formed for individual companies, the important things are to treat all employees equally and to raise the sense of togetherness among employees, so it is difficult to give a very high reward only to a specific competent inventor. It has also been the case that employees rarely demand extra money in the hope that they would get promoted in the future.

Nevertheless, this kind of situation may not continue for much longer. Labor

¹ The difference between the Law of 1921 and the current law (Law of 1959) is that, while the current law regards an invention made in the course of the present or past duties of the employee as an employee's invention, the Law of 1921 only mentions "inventions relating to duties," and has no clear provision about inventions belonging to past duties.

mobility is continuing to become higher mainly among young workers, and the wage system is increasingly shifting from the seniority system to the merit-based pay system. In addition, Japanese companies are likely to hire more non-Japanese workers in the future. Particularly in universities and national or public research institutes, senior researchers are often invited from abroad. Considering these circumstances, it likely will become more and more difficult for Japan to maintain the unique practices of an employees' invention system that solely functions under Japan's peculiar employment system.

The employees' invention system is closely related to the historical development of each country, and has developed in different modes depending on the country. For instance, the mode of development is interestingly contrastive between the system in the United Kingdom, which became a capitalist country at an early stage, and that in Germany, which became a capitalist country later in time².

3. Scope of Business of an Employer and Duties of an Employee

² Regarding the modes of development, court decisions, laws, and academic theories concerning the employee's invention system of each country, see Nakayama, *Hatsumeishaken No Kenkyuu* (Study on Rights of the Inventor).

Of the inventions made by an employee, an invention which “by reason of its nature falls within the scope of the business of the employer, etc. and an act or acts resulting in the invention were part of the present or past duties of the employee, etc. performed on behalf of the employer, etc.” (Section 35 (1) of the Patent Law) is an employee’s invention, which has a special effect. However, other inventions are free inventions, which the employee can freely work, make profits from, and dispose of. The employer is unable to bind the employee regarding free inventions by establishing stipulations in advance (Section 35 (2) of the Patent Law). However, it is possible to transfer, etc. an employee’s invention or free invention to the employer by a free contract after the invention is made. (This is an ordinary contract between an employer and an employee based on free intent). Some companies impose an obligation to notify the company of the invention or an obligation of preferential negotiation¹ regarding all inventions, including employees’ free inventions, but as the ultimate disposition of the inventions are left to the employees’ discretion, these obligations do not have to be considered as illegal.

The employer of the employee who made an employee’s invention is the person who gave the main assistance in making the invention. The most significant criterion in determining who the employer is may be the question of who actually provided the wage, but the employer should be determined by comprehensively taking into account other factors as well, such as who provided the research facilities, who provided the research assistants, and who gave instructions and orders². With regard to Section 35, the employment relationship should be judged from the viewpoint of how the profits of the provider of physical assistance, such as funds and materials, and those of the provider of the technical idea should be adjusted in order to effectively encourage invention.

(1) Scope of business of an employer

¹ This means an employee’s obligation to negotiate with the employer regarding the right to obtain a patent or the patent right on his/her invention prior to transferring or licensing it to a third party. This only obligates the negotiation itself, and does not go as far as to obligate the employee to transfer the right or grant an exclusive license to the employer.

² In the case of a temporary worker dispatched from a temporary employment agency, the worker receives the wages from the agency, so he/she is formally an employee of the temporary employment agency. However, practically, the company to which the worker is dispatched pays the wages, provides the research facilities, and gives instructions and orders to the worker. Also, a temporary worker sometimes engages in virtually the same work as that of regular employees over a long term. In such case, it may be more appropriate to consider that the temporary worker is employed by the company to which that worker is dispatched for purposes of the Patent Law. For an opposing opinion, see Enatsu, *Hiyousha Hatsumei Seido* (Employees’ Invention System): p. 488.

The term “employer” refers to a private enterprise employer such as the head of a one-man company, a legal entity such as a corporation, the State, or a local public entity. Even an invention made by the representative of a company that consists of only one person can be an employee’s invention, in which case the employer would be that company¹.

Regarding determination of the scope of business of an employer, many older theories interpreted the scope in connection with the purposes of the corporation described in the company’s articles of incorporation² or considered these purposes as influential references³, but such an approach is inappropriate. The purposes of the corporation described in the articles of incorporation are intended to delineate the company’s capacity to enjoy rights in relation to its transactions with other parties, in order to protect the shareholders, and are not intended to be used in adjusting relationships with respect to rights as between the company and its employees. It is possible that a company would secretly start research when entering a new field of business, and change or add the purposes of the corporation described in the articles of incorporation after the plan becomes realistic to a certain extent. Also, even if a company itself does not work the invention, it can grant a license to its subsidiary, etc. In such case, there is no reason to deny the creation of employees’ inventions that were made before the change of the articles of incorporation. In addition, the issue of inequity with the employees of private enterprises, the State, and local public entities, which do not have articles of incorporation, should also be taken into consideration.

In sum, the scope of business of an employer in this context should be interpreted not in connection with the purposes of the corporation described in the articles of incorporation, but should include all businesses that the employer is actually conducting or concretely plans to conduct in the future⁴. Therefore, even if a business

¹ Osaka District Court decision on March 31, 1972, Court Decision Journal, No. 678: p. 71 (the Pressure-Resistant Hose case) ([Annotation] Fujio Fuji, *Tokkyo Kanri* (Patent Management), Vol. 30, No. 11: p. 1191).

² Hattori, *Tokkyo Hou Yousetsu* (Introduction to the Patent Law): p. 221; Kaneko/Someno, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 34; Yoshifuji, *Tokkyo Hou* (Patent Law): p. 233; and Watanabe, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 26.

³ Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 220; Mutsuo Ooya, “*Shokumu Hatsumeishi* (Employees’ Inventions),” edited by Kazuo Inoue, *Tokkyo Kanri* (Patent Management) (Yuhikaku, 1968): p. 135.

⁴ For similar opinions, see Toyosaki, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 145; Takino, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 38; Tomoko Takii, *Kigyuu Hou Kenkyuu* (Study on Business Law), Vol. 190: p. 19; Tsutomu Jinbou, *Patent*, Vol. 3, No. 3: p. 13; Monya, *Chuushaku Tokkyo Hou* (Annotated Patent Law): p. 96 [Monya]; Nakayama, *Hatsumeishaken No Kenkyuu* (Study on Rights of the Inventor): p. 182; and Nakayama, *Chuukai Tokkyo Hou* (Annotated Patent Law), Vol. 1: p. 293 [Nakayama].

is described in the purposes of the corporation in the articles for incorporation, it would be outside the scope of business of the employer if it is currently not carried out or there is no concrete plan to conduct it in the future.

However, in the case of the State or local public entities, it would not be equitable with the case of private enterprises, while it would also be too vast and ambiguous, to consider all businesses that are being conducted or concretely planned to be conducted in future as falling under the scope of business of the employer. Instead, the scope of business of the organ to which the government official belongs should be regarded as the scope of business of the employer⁵.

⁵ For similar opinions, see “*Kokka Koumuin No Shokumu Hatsumei Ni Taisuru Hoshoukin No Shiharai Youryou* (Outline of the Payment of Compensation for an Employee’s Invention Made by a Government Official)” (JPO, 59 *Tokusou*, No. 1366, 1984) Article 1; Yoshifuji, *Tokkyo Hou* (Patent Law): p. 234; and Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 220.

(2) Duties of an employee¹

The term “employee” in Section 35 of the Patent Law is a concept that includes company directors², employees of private companies (such as one-man businesses), and government officials, besides employees of companies in the general sense. It does not matter whether the employee is a regular worker, part-time worker, temporary worker, or day worker³.

To constitute an employee’s invention, the act of invention must be part of the present or the past duties of the employee. Such duties are not only tasks specifically instructed by the employer, but also an act such as voluntarily finding a research theme and then making an invention therefrom could also constitute an employee’s invention⁴. The question of whether an invention was part of the employee’s duties is determined by comprehensively considering the position, wages, and kind of occupation of the employee, as well as the degree of the employer’s contribution to the process of completing the invention. In general, those of higher business standing receive more

¹ In patent studies, “*jyuugyousha*” (employee) is also referred to as *jyuugyoin* or *hiyousha*, but the term “*jyuugyousha*” is used in Section 35 of the Patent Law, so this book uses the same term. “*Jyuugyousha*” is rarely used in law, but it is used in Article 318 (leakage of a trade secret) of the draft of the amended Penal Code.

² While there is no doubt that an invention made by a board member could constitute an employee’s invention, court decisions that actually held that an invention made by a board member constitutes an employee’s invention based on such premise are: the Osaka District Court decision on March 31, 1972, Court Decision Journal, No. 678: p. 71 (the Pressure-Resistant Hose case); Kobe District Court decision on December 12, 1989, Court Decisions Relating to Intangible Property, Vol. 21, No. 3: p. 1002 (the Hydraulic Gate case) ([Annotation] Keita Satou, Jurist, No. 1040: p. 127); and a trial on its *Koso*-appeal, Osaka High Court decision on September 13, 1990, Court Decisions Relating to Intangible Property, Vol. 22, No. 3: p. 569. On the other hand, decisions that held that an invention made by a board member is not automatically an employee’s invention are: Tokyo District Court decision on June 8, 1965, The Law Times Report, No. 180: p. 182 (the File Wrapper case), and Tokyo High Court decision on May 6, 1969, The Law Times Report, No. 237: p. 305 (the Enameled Bath tub case).

³ Yoshifuji, *Tokkyo Hou* (Patent Law): p. 234; and Enatsu, *Hiyousha Hatsumei Seido* (Employees’ Invention System): p. 481.

⁴ Not a few central research centers of companies let their researchers engage in free research, but an invention made under such circumstances can also constitute an employee’s invention. A court decision held that even when an employee voluntarily finds a research theme and then completes an invention, if, when judged objectively from the employee’s original duties, an act of attempting and completing such invention has generally been contemplated by the employer and the employee, and the employer has extended facilities and given assistance in making the invention, the invention constitutes an employee’s invention: Osaka District Court Decision on April 28, 1994, Court Decision Journal, No. 1542: p. 115 (the Thermos Flask case) ([Annotation] Shirou Shinoda, Court Decisions Journal, No. 1558: p. 213). Also a court judged that a managing director who had the post since the establishment of the company had a specific duty to enhance devices for improvements of production technology, so the invention was part of his duty even without concretely considering whether or not and the extent to which facilities were extended in the Kobe District Court decision on December 12, 2000 <*supra* note 2>.

wages, and accordingly, they should be recognized as engaging in a wider scope of work⁵. However, all businesses of a company are not immediately considered as falling within the duties of a director⁶.

Unlike under the old law, the current law also treats inventions that were part of the employees' past duties as employees' inventions. Past duties in this case should be interpreted as past duties within the same company, and inventions made after resigning are not considered as employees' inventions⁷. Otherwise, an invention made after resigning from a company and joining another company would be an employee's invention for both the previous company and the newly-joined company. This does not only cause a complicating situation, but such act of binding the employee after resignation would also deprive the employee of the means of earning a livelihood and would practically take away his/her freedom to choose a job, so it is not reasonable.

⁵ Supreme Court decision on December 13, 1968, Civil Court Decisions by the Supreme Court, Vol. 22, No. 13: p. 2972 (the Lime Nitrogen Furnace case) ([Annotation] Keiichi Yamamoto, Journal of the Jurisprudence Association, the University of Tokyo, Vol. 91, No. 9: p. 1465; Fumio Umase, Journal on Civil and Commercial Law, Vol. 61, No. 4: p. 629; Nagao Okumura, *Housou Jihou* (Bar Journal), Vol. 21, No. 5: p. 83; Kazuko Matsuo, The Law Times Report, No. 234: p. 86; Nobuhiro Nakayama, *Keizai Hou* (Economic Law), No. 13: p. 25; Shouzou Satsukime, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition), Case 13; Nakagawa/Harima, *Hanrei Kougyou Shoyuiken Hou* (Study on Court Decisions relating to Industrial Property Law), Case 3 [Tamotsu Aoyama]). For annotation of the court decision in the first instance of this case, which is the Tokyo District Court decision on July 30, 1963, Civil Court Decisions by Lower Courts, Vol. 14, No. 7: p. 1505, see Monzou Takino, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions), Case 28; and Kazuko Matsuo, *Jurist*, No. 353: p. 130. Other similar decisions include the court decision in the second instance of this case, which is the Tokyo High Court decision on February 28, 1967, The Law Times Report, No. 207: p. 147.

⁶ The court held that a device made by a board member in charge of market development and sales planning is not a device related to his duties in the Tokyo High Court decision on May 6, 1969 <supra note 2>.

⁷ For similar opinions, see Fujiyoshi, *Tokkyo Hou* (Patent Law): p. 238; Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 221; JPO, *Chikuji Kaisetsu* (Step-by-Step Explanation): p. 98; Toyosaki, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 148; Takino, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 39; Mitsuishi, *Tokkyo Hou* (Patent Law): p. 180. However, if an invention had actually been completed before resignation and the employee resigned while keeping the fact of the invention secret in order to file an application for it afterwards, the invention is considered as having been made while the employee was still with the company (Osaka District Court decision on May 18, 1989, *Tokkyo To Kigyuu* (Patent and enterprises), No. 128: p. 49 / Court Decisions in Suits against Appeal/Trial Decisions, 1979 (District Court): p. 239 / Patent News No. 5210 and No. 5211 (the Continuous Kneading Machine case) ([Annotation] Eitarou Ikeda, *Tokkyo Kanri* (Patent management), Vol. 30, No. 5: p. 471), Nagoya District Court decision on September 2, 1996, Court Decision Journal, No. 1609: p. 137). On the other hand, the court ruled that if the framework of an invention had been made to a certain extent while the employee was working for a company, but the invention was completed after his resigning from that company and after joining another company in the process of implementing the employee's duties in that new company, it is an employee's invention of the latter company, in the Nagoya District Court decision on December 21, 1992, The Law Times Report, No. 814: p. 219 (the Multistory Car Park Floor Structure case).

4. Employer's License

(1) Content of the employer's license

If an employee makes an employee's invention and that employee or the successor to the right to obtain a patent obtains a patent right for it, the employer justifiably gains a non-exclusive license for the invention free of charge¹ (Section 35 (1) of the Patent Law). This employer's license takes effect upon registration of the patent² and it is effective against third parties without registration (Section 99 (2) of the Patent Law).

It should be understood that there is no limit to the scope of the employer's license³. This is because no limitation is expressed in the wording of the provisions. Also, in actuality, establishment of any limitation on the scope of application of the technology exploitable under the employer's license, either in terms of place or time, would be too disadvantageous for the employer, who invested funds and materials, and would be improper from the perspective of encouraging investment in inventions, particularly in an era of technological innovation like today.

The provisions in Section 35 of the Patent Law are mainly intended to protect the employee, but at the same time they secure a minimum guarantee for the employer. The employer's license is stipulated as being effective against a new patentee, etc. without registration, even if the employee transfers the patent right to a third party or grants an exclusive license for it (Section 99 (2) of the Patent Law). Another theory goes further, concluding that a transfer of the employer's non-exclusive license (statutory license) is also effective against third parties without registration⁴, but this is

¹ The license is free of charge in Japan, but this is entirely based on the nation's legal policy. The license is also free of charge in the United States, but a fee is charged in Germany although the country has a similar system to that of Japan.

² Section 35 of the Patent Law stipulates that the employer will obtain a non-exclusive license when the patent is granted, but this should be interpreted to mean that the employer can work the invention even before the grant of the patent. The details of this issue will be discussed in the following Item.

³ The court held that the scope of the non-exclusive license for an employee's device is not limited to use of the device, but also includes manufacture, transfer, lease, and exhibition of the device, in the Tokyo High Court decision on September 25, 1985, *The Law Times Report*, No. 576: p. 90 (the Horse Racing Ticket Vending Machine case). For details, see Nakayama, *Hatsumeishaken No Kenkyuu* (Study on Rights of the Inventor): p. 184; Monzou Takino, *Shiyounin Hatsumeiken Ron* (Discussion on Employees' Rights to Inventions) (Chuo University Press, 1966): p. 221; Nobuo Monya, "Shokumu Hatsumeii Ni Motozuku Shiyousha Nado No Houtei Tsuujuu Shiyouken Ni Tsuite No Jakkan No Kousatsu (Brief Examination of the Employer's Statutory Non-exclusive License for an Employee's Invention)," *Seikei Hougaku*, No. 13: p. 239; Mutsuo Ooya, "Shokumu Hatsumeii (Employees' Inventions)," edited by Kazuo Inoue, *Tokkyo Kanri* (Patent Management) (Yuhikaku, 1966): p. 142.

⁴ See Toyosaki, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 300. For an opposing

improper. Section 99 (2) of the Patent Law only provides for cases in which the patent right is transferred or an exclusive license is granted for it, while, Section 99 (3) of the Patent Law provides that the transfer of a non-exclusive license is not effective against third parties unless it is registered, even if it is a statutory license. Although there is such stipulation, there are hardly any cases where Section 99 (3) of the Patent Law would be applicable in actuality⁵.

There is also a theory that considers the non-exclusive license to remain with the employer even if the employer is assigned the right to obtain a patent by the employee but returns the right to the employee or transfers the right to a third party and a third party obtains the patent right⁶, but this is false. When the right to obtain a patent is assigned by the employee to the employer, the employer obtains both the right to obtain a patent and the right to work the invention, and the license of the employer extinguishes as a result of the merger of rights. Accordingly, a third party to whom the employer transfers the right to obtain a patent obtains both rights in a complete form, which means that the minimum guarantee secured for the employer has been fulfilled. Any subsequent transfer of the right to obtain a patent from the employer would be the same as an ordinary transfer, so it does not involve any special treatment attributable to an employee's invention, as a matter of course. Such a transfer would jeopardize the safety of business dealings⁷. The same holds true when the employer receives the patent right from the employee by assignment⁸. In any case, when the right to obtain a patent or the patent right itself is once transferred from the employee to the employer, the license no longer remains with the employer, and there is no good reason to interpret that it does, even if the right to obtain a patent or the patent right is returned to the employee or transferred to a third party by the employer⁹.

discussion, see Monya, *supra* note 3: p. 241.

⁵ The details will be discussed in Section 9, Subsection 4, Item 3., 4. (4) "Changes in the Parties Concerned."

⁶ See Monya, *supra* note 3: p. 243; and Yoshifuji, *Tokkyo Hou* (Patent Law): p. 176.

⁷ See Mutsuo Ooya, *supra* note 3: p. 142; and Enatsu, *Hiyousha Hatsumei Seido* (Employees' Invention System): p. 534.

⁸ For details, see Nobuhiro Nakayama, "Shokumu Hatsumei Ni Tsuite No Shiyousha No Jisshiken (Employer's License for an Employee's Invention)," Patent News, No. 5660; Nakayama, *Hatsumeishaken No Kenkyuu* (Study on Rights of the Inventor): p. 185; and Nakayama, *Chuukai Tokkyo* (Annotated Patent Law), Vol. 1: p. 297 [Nakayama]. Also, page 77 of Hiroya Kawaguchi, *Tokkyo Hou No Kouzou To Kadai* (Structure and Problems of the Patent Law) (Sanrei Shobou, 1983) also seems to stand on the same idea.

⁹ In short, the important thing is not to disable the employer from working the invention against his/her intent. So, there is no need for special treatment in cases where the employer makes some disposition by his/her own intent.

(2) Treatment before the grant of the patent

The non-exclusive license of the employer under Section 35 of the Patent Law is stipulated to take effect when the patent is granted, but in reality a long time is required from completion of an invention to the grant of the patent, so the employer may need to work the invention even before the grant of the patent. Therefore, the issue of whether or not the employer can work the invention before the grant of the patent presents an important issue of interpretation.

The purport of Section 35 of the Patent Law is to adjust the interests between the employer who provided funds and materials and the employee who provided the technical idea, and this purport is not changed by the point in time being before or after the grant of the patent. Accordingly, it should be interpreted that the employer can justifiably work the employee's invention free of charge even before the grant of the patent¹. This may deviate from a discussion on interpretation of the Patent Law, but a company does not always file a patent application for its employee's invention. Instead, it often keeps it secret as its own know-how. It should be understood that the employer can also use such know-how free of charge.

5. Succession to Right and Grant of Exclusive License

(1) Introduction

¹ For similar opinions, see Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 225; Toyosaki, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 149; Nobuo Monya, "Shokumu Hatsumei Ni Motozuku Shiyousha Nado No Houtei Tsuujou Jisshiken Ni Tsuite No Jakkan No Kousatsu (Brief Examination of the Employer's Statutory Non-exclusive License for an Employee's Invention)," *Seikei Hougaku*, No. 13: p. 239; Hashimoto, *Tokkyo Hou* (Patent Law): p. 175 (it mentions that the provisions are, practically, not considered to prohibit the employer, etc. from working the invention before the grant of the patent); Mutuo Ooya, "Shokumu Hatsumei (Employees' Inventions)," edited by Kazuo Inoue, *Tokkyo Kanri* (Patent Management) (Yuhikaku, 1966): p. 143. For an opposing view, see Mitsubishi, *Tokkyo Hou* (Patent Law): p. 182. The specific meaning of the opposing view is not quite clear, but the assumable gist is that the Patent Law has no relation to this problem. If so, the employer can freely work the invention until the laying open of the application unless there is no other special contract, but during the period from the laying open to the registration, the employer must individually negotiate with the employee to obtain a license, or else, he/she may later receive a claim for compensation (Section 35 (1) of the Patent Law). Then, after the registration, the employer obtains a statutory non-exclusive license, which enables free working of the invention. Such interpretation is neither reasonable nor does it suit actual conditions. The Patent Law should rather be interpreted that the employer can consistently work an invention which could become an employee's invention both before and after the registration. Simply speaking, the employer obtains a non-exclusive license after the patent registration, but before that, he/she can only work the invention (meaning that no compensation will be claimed for the employer's working of the invention, and the act of working does not constitute a tort).

An employer obtains a statutory non-exclusive license for an employee's invention, but is rarely satisfied with it, and often seeks to obtain the right to obtain a patent, the patent right, or an exclusive license. However, if this matter is left to the principle of the freedom of contract between the employer and the employee, the employee is likely to be one-sidedly disadvantaged due to the power relationship. Therefore, the Patent Law provides for certain restrictions on the contract between the employer and the employee. Specifically, it provides that, in the case of an invention that does not fall under an employee's invention (free invention), "any contractual provision, service regulation or other stipulation providing in advance that the right to obtain a patent or the patent right shall pass to the employer, etc. or that he shall have an exclusive license for such invention shall be null and void" (Section 35 (2) of the Patent Law). Looking at it from another way, this means that establishment of such a stipulation is not prohibited, nor is it prohibited to transfer the right to obtain a patent or the patent right or grant an exclusive license by free contract between the employer and the employee, be it an employee's invention or a free invention, as long as it is after the completion of the invention¹. This guarantees the employer the ability to obtain stronger rights to the invention than a non-exclusive license in return for a reasonable remuneration by concluding a contract in advance, and guarantees that the employee will receive a reasonable remuneration when he/she transfers an employee's invention to the employer or gives the employer an exclusive license for it.

Although a contract provision or other stipulation providing in advance for the transfer or the like of a set of inventions that include inventions that are not employees' inventions would be null and void, the entire contract would not be nullified, only the portion relating to free inventions (partial nullification)².

(2) Requirements -- Stipulation on Succession, etc. to Right

¹ The transfer of right after completion of a free invention would be made by a contract between the employer and the employee on an equal footing, and generally, the remuneration for transfer is higher than that for an employee's invention (Yoshifuji, *Tokkyo Hou* (Patent Law): p. 246). Needless to say, the employer cannot force the employee to transfer a free invention. If the employer puts undue pressure on the employee to conclude a transfer contract, the contract may be judged as invalid by reason of being contrary to public policy.

² Decision of the Osaka District Court on May 18, 1979, *Tokkyo To Kigyō* (Patent and Enterprises), No. 128: p. 49 / Court Decisions in Suits against Appeal/Trial Decisions, 1979 (District court): p. 239 / Patent News No. 5210 and No. 5211 (the Continuous Kneading Machine case).

There are a number of modes in which succession to a right or grant of an exclusive license can be stipulated in advance with respect to employees' inventions. The presumable modes would include labor contracts, collective labor contracts, and employment regulations. Section 35 of the Patent Law refers to "any contractual provision, work regulation¹ or other stipulation," but its meaning is not quite definite. The main purpose of this provision is to protect the employee who made the invention but, as mentioned earlier, it should be interpreted as guaranteeing a certain level of rights for the employer, who offered physical assistance such as funds and materials. In other words, the fact that the employer can make provision for succession, etc. to rights in advance regarding employees' inventions is one type of benefit that the employer derives from employees' inventions. Accordingly, a provision in "any contractual provision, work regulation or other stipulation" not only means an agreement or contract between the employer and the employee, but also covers possibilities for creating a stipulation on succession, etc. to rights by other methods. It should be interpreted that such a provision can also be made by the employer's one-sided indication of his/her intention. Most theories do not seem to take into account stipulation other than by contract, but that is unreasonably disadvantageous for the employer and does not suit the actual conditions². Section 35 of the Patent Law does not obligate the employee to conclude a contract to transfer, etc. the right to the employer, but only provides for nullification of a stipulation in advance on free inventions. If the method of the transfer, etc. of right were limited to contract, the employer would be left with no way to seek for succession, etc. to the right once the employee refused to conclude such a contract. This would make the status of the employer extremely unstable and would be problematic for encouraging investment in inventions and promoting inventive activities. Therefore, it is necessary to interpret that a stipulation by the employer's one-sided indication of his/her intention without

¹ The term "work regulation (*kinmu kisoku*)" is not generally used in labor law, but it should rather be considered as a concept under the Patent Law. In practice, such stipulations are likely to be made in the employment regulations. What is more, the concept of employment regulations under the Labor Standards Law had already been in existence at the time of enactment of the current Patent Law (1959). Therefore, consideration should be given to the reason for purposefully not using the term "employment regulations" in light of such circumstances.

² In practice, the stipulation is usually made in the employment regulations or provisions on employees' inventions (Mutsuo Ooya, "*Shokumu Hatasumei* (Employees' Inventions)," edited by Kazuo Inoue, *Tokkyo Kanri* (Patent Management) (Yuhikaku, 1966)). The employment regulations and provisions on employees' inventions are not necessarily contracts. There are different theories on the legal nature of employment regulations and a consensus has yet to be reached. However, such regulations at least subject to various restrictions under the Labor Standards Law, so in that sense, they are not entirely within the employer's free discretion.

concluding a contract is also effective³. In the case where no contract or employment regulations exist, the reasonable intentions of the parties would be presumed and that determination would be made by taking into consideration all the practices and other factors of the company⁴.

It is also possible to make a stipulation by “provisions on employees’ inventions” one-sidedly created by the employer, but once the stipulation is established, any revision of it would have to be made in accordance with the legal nature of the stipulation, so it would not necessarily be sufficient for the employer to one-sidedly indicate his/her intention. If the stipulation is made by contract, its revision would require the consent of both parties, and if it is made by an employment regulation, the revision would have to be made in accordance with the Labor Standards Law. If the stipulation is made by the employer’s one-sided indication of his/her intention, it could again be revised by the employer’s one-sided indication of his/her intention.

If there is no stipulation on succession to the right, the employer cannot demand succession to the right against the employee’s intent after completion of the invention⁵. However, it goes without saying that the employer and the employee can

³ For the same opinion, see Mutsuo Ooya, *supra* note 2: p. 139. For an opposing opinion, see Enatsu, *Hiyousha Hatsumei Seido* (Employees’ Invention System): p. 566. If the provision were to be interpreted in such a way that the right could only be transferred by contract, once the employee refuses to conclude the contract, the only option the employer has would be to claim that the employee cannot refuse the contract due to the employee’s obligation under a general duty of loyalty pertaining to the labor contract. However, such reason for a claim is too abstract and ambiguous to secure a minimum guarantee for the employer.

⁴ In the Tokyo High Court decision on July 20, 1994, Court Decisions Relating to Intellectual Property, Vol. 26, No. 2: p. 717 (the Signal Demodulator case), the court held as follows: after mentioning that “apart from a case where the express intent of the employee, etc. can be presumed, it is not easily presumable that the reasonable intention of the employee is that the patent rights, etc. to the employee’s invention should belong to the company,” it stated that “an implied consent cannot be presumed when the employer’s side apparently has the intention that employees’ inventions should justifiably belong to the company free of charge.” In general, a practice or an implied consent to transfer the right to the employer in return for a reasonable remuneration would be presumable in many cases.

⁵ The court ruled against this idea in the Tokyo District Court decision on July 14, 1959, Civil Court Decisions Relating to Labor, Vol. 10, No. 4: p. 645 (Taihei Paper Manufacturing’s dismissal case) ([Annotation] Yoshirou Fukase, *Jurist*, No. 208: p. 132; Yoshinobu Someno, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) Case 29; Sumio Shinagawa, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) [Second Edition] Case 14). In that case the plaintiff, who was a (temporary) employee of the defendant company that had no stipulation on succession to rights relating to employees’ inventions, filed a patent application in his name for an employee’s invention he made, but the defendant company asked the plaintiff first to withdraw the application and later to change it to a joint application by the plaintiff and the defendant company in fear of the technology becoming open to the public. However, the plaintiff indicated his desire either to transfer the right to the defendant company after the grant of the patent or to receive a patent license fee for the invention, and also requested the company to make provisions as to employees’ inventions, but the defendant company indicated its intention to dismiss the plaintiff by

make a deal as to the rights on a equal footing by free will.

(3) Effect

(A) Timing of the succession to right and grant of an exclusive license (hereinafter referred to as “succession or license”)

giving an allowance for dismissal without notice in advance. The plaintiff argued that it was an abuse of the right of dismissal, but the court ruled that as long as the two parties' opinions are in opposition regarding important contents of the contract for the handling of inventions, the defendant's intention to cancel the employment contract cannot be considered as a socially unreasonable measure. Although this case takes the form of a labor-related case, it is actually an issue over interpretation of the Patent Law, and the content of this court decision should be considered to be improper.

The commonly held view makes the mistake of limiting the “stipulation on succession to or license of a right” to a contract. According to this view, the contract has to be either a preliminary contract or a contract of assignment with a suspensive condition (similar to a condition precedent in common law jurisdictions). With regard to its specific content, there is a theory in which the right to obtain a patent is considered to be transferred to the employer upon completion of the invention¹, and a theory in which the employer is considered to have the right to consummate the contract². The latter is further divided into two theories: a theory in which the right to obtain a patent is transferred to the employer upon exercise of the employer’s right to consummate the contract³, and a theory in which an obligation is imposed on the employee when the employer exercises the right to consummate the contract, and the right to obtain a patent is only transferred to the employer when the employee gives his/her consent⁴. There is also a theory that this is determined by the content of the contract between the parties⁵.

However, all of these theories are improper in that they see the stipulation on succession, etc. to rights within the scope of a contract. The employer’s right to the succession or license can take effect either by agreement between both parties (labor contract, collective labor contract, etc.) or by the employer’s one-sided indication of his/her intention. The timing of the succession to or license of a right must also be examined separately for these two types of cases.

First, let us examine the case where the succession or license takes place by contract. The contract would be either a preliminary contract or a transfer contract whose suspensive condition is the completion of the invention, the choice of which would be determined by agreement between the parties⁶. When the content of that

¹ Morioka, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 39; Reiko Aoyagi, “*Shokumu Hatasumei* (Employees’ Inventions) (2),” Makino, *Kougyou Shoyuiken Soshou Hou* (Code of Legal Procedure relating to Industrial Property): p. 293.

² Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 224.

³ Hiroya Kawaguchi, *Tokkyo Hou No Kouzou To Kadai* (Structure and Problems of the Patent Law) (Sanrei Shobou, 1983): p. 75 basically regards the issue as a matter of interpreting the intentions of the parties concerned, but when the intentions are not clear, it considers the right to be transferred when the employee notifies the completion of the invention or when the employer indicates an intention to obtain the right.

⁴ Monya, *Chuushaku Tokkyo Hou* (Annotated Patent Law): p. 35 [Monya]; Monzou Takino, *Shiyounin Hatsumeiken Ron* (Discussion on Employees’ Rights to Inventions) (Chuo University Press, 1966): p. 224.

⁵ Toyosaki, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 146.

⁶ Since this is a matter of contract, it is possible to make a different agreement. For instance, a contract could be made to transfer the patent right to the employer upon registration of the patent. In that case, however, the transfer of the patent right is not a consensual contract, so, cooperation of the employee will be required for the transfer, and the right will be transferred when the registration

agreement is not clear, the reasonable content of the agreement between the parties should be determined by comprehensively considering the various circumstances. As obtainment of a patent is a race against time, the agreement is often determined to be a transfer with a suspensive condition in actual cases, because it enables prompt processing⁷. In the case of a transfer contract with a suspensive condition, the right to obtain a patent is transferred to the employer upon completion of the invention.

If the intentions of the two parties were judged to be the making of a preliminary contract, the employer's display of his/her intention to consummate the contract would be required. In the case in which the contract is a consensual contract, the contract is completed merely by the employer's display of his/her intention to consummate the contract and the right is transferred as an effect of the contract, thereby not requiring the employee to display his/her intention of consent⁸. On the other hand,

is actually made.

⁷ There are many theories that deny approval of transfer with a condition precedent (Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 224; Monya, *Chuuushaku Tokkyo Hou* (Annotated Patent Law): p. 35 [Monya]). The reasons can be summarized in the following three categories: (a) if the employee transfers the right to obtain a patent to a third party, that transfer would be invalid, because the right to obtain a patent has already been transferred to the employer upon completion of the invention, so it is inconvenient (Oda/Ishikawa: p. 224; Mutsuo Ooya, "Shokumu Hatsumei (Employees' Inventions)," edited by Kazuo Inoue, *Tokkyo Kanri* (Patent Management) (Yuhikaku, 1966): p. 150 is also considered to stand on the same idea); (b) in the case of a joint invention, the transfer to the employer cannot be made unless the co-owners of the right to obtain a patent give their consent, which would be a contradictory situation (Monya); and (c) for protection of workers. Nevertheless, all of these three are based on misunderstanding. First of all, in the case where the employee transfers the right to obtain a patent to a third party, the employer and the third party will set up against each other, and whichever party that satisfies the requirement for setting up against the other (filing of the application in this case; (Section 34 (1) of the Patent Law) simply obtains the full right. A theory in which the party who first obtained the right by transfer has the full right and any other subsequent transfer is invalid is erroneous in that it does not take into account the requirements for setting up against other parties regarding the transfer of right. Next, in the case of a joint invention, the right to obtain a patent cannot be transferred to the employer without the consent of the other joint inventors (Section 33 (3) of the Patent Law), but that does not constitute a reason to deny the transfer contract with a suspensive condition itself. It is also possible that such a contract in general cannot be executed when: the condition has been fulfilled but the subject matter has been destroyed; when cooperation of a third party cannot be received; when a third party has obtained the right; when permission under administrative law could not be gained; or when law has been amended. However, that does not serve as a ground for denying the transfer contract with a suspensive condition itself. The contract should be held to be effectively formed, and if a problem arises, it only has to be solved according to the principles of civil law, such as assumption of the risk and default of obligation. In addition, the denial of a transfer contract with a suspensive condition does not lead to protection of workers. Whichever the theory, the employee has an obligation to make a transfer or the like of the right to the employer as long as there is a stipulation for the transfer. Thus, the ultimate conclusion is the same, only making slight differences in the timing of the transfer, etc. of the right. Not only are these slight differences hardly beneficial for the employee, but they only serve as a cause of trouble.

⁸ If the employee's consent were also to be required for a consensual contract, the preliminary contract would be meaningless (Saburou Kurusu, *Keiyaku Hou* (Law of Contract) (Yuhikaku, 1967):

in the case in which the contract is a formal contract, some sort of act of the employee (the person having the obligation to make the preliminary contract) is required in addition to the employer's display of his/her intention to consummate the contract. Specifically, the matter should be examined case-by-case, depending on whether the subject matter of the contract is the transfer of the right to obtain a patent before the filing of the patent application, the transfer after the filing but before registration, the transfer after the registration, or the grant of an exclusive license⁹. The first two are consensual contracts, which do not require cooperation of the employee in transferring the right, so the right is transferred merely by the employer's display of his/her intention to consummate the contract. On the other hand, the latter two are formal contracts, which require cooperation of the employee for the transfer, etc. of the right, so the right is not transferred merely by the employer's display of his/her intention to consummate the contract. The system is described above in a theoretical sense but in reality it would be rare for the intentions of the two parties to be the making of a preliminary contract.

Next, let us examine the case in which the succession to or license of a right takes place by the employer's one-sided display of his/her intention. The timing of the transfer or the like of the right can be one-sidedly determined by the employer in principle, but when the employee's cooperation is required for the succession or license, the transfer, etc. takes effect when that step is taken.

The specific timing of the transfer, etc. of a right is as follows. No formal requirements are needed for transfer of the right to obtain a patent before the filing of the patent application. Only the filing of the patent application is required to make the succession to the right effective against third parties (Section 34 (1) of the Patent Law). Therefore, it is possible to stipulate to the effect that the right to obtain a patent shall be transferred to the employer upon completion of the invention by the employer's one-sided display of his/her intention¹⁰.

In the case of a transfer of the right to obtain a patent after the filing of the

p. 22).

⁹ Many theories overlook the important point of whether the contract is a consensual contract or a formal contract, and only discuss whether the transfer of the right takes effect solely by the employer's indication of his/her intention to consummate the contract or whether the consent of the employee is required. This shows a lack of adequate contract law analysis.

¹⁰ The court held that the right to obtain a patent was transferred to the company upon completion of the invention by the effect of an employment regulation in the Osaka District Court decision on May 18, 1979, *Tokkyo To Kigyō* (Patent and Enterprises), No. 128: p. 49 / Court Decisions in Suits against Appeal/Trial Decisions, 1979 (District Court): p. 239 / Patent News, No. 5210 and No. 5211 (the Continuous Kneading Machine case).

application but before registration, notification is required to make the transfer effective (Section 34 (4) of the Patent Law), but unlike in the old Patent Law, there is no need to attach a certificate of transfer to the notification, and as long as the employer has grounds to file the application, it can make the notification on its own¹¹. Therefore, in this case also, it is possible to stipulate the timing of transfer of the right to obtain a patent to the employer solely by the employer's one-sided display of his/her intention.

In contrast, transfer after the registration of the patent only takes effect by registration (Section 98 (1) (i) of the Patent Law). The registration must be made either by applications by both the person entitled to the registration and the person having the obligation to register (Section 18 of the Patent Registration Order) or by attaching a written consent of the person having the obligation to register (Section 19 of the Patent Registration Order). Accordingly, the right is not transferred merely by the employer's one-sided display of his/her intention, but only when the employee cooperates by filing an application. As long as there is a stipulation about the transfer of the right, the employee has no freedom to refuse to cooperate in the transfer of the right. If the employee refuses to cooperate, the employer can register the transfer of the right on his/her own by receiving a court judgment (Section 20 of the Patent Registration Order). In any case, the time of the transfer of the right is when the registration is concretely made.

Grant of an exclusive license can only take place after patent registration, and registration is required in order for the license to take effect (Section 98 (1) (ii) of the Patent Law), so the situation is the same as in the case of transferring the patent right.

(B) Remuneration

¹¹ The JPO Commissioner can issue an order to produce written proof of the person in question being the successor, when necessary (Section 5 of the Regulations under the Patent Law). Therefore, in practice it is more desirable to have a certificate of transfer prepared.

When the employee transfers the right to obtain a patent or grants an exclusive right to the employer, the employee is entitled to receive “reasonable remuneration” (Section 35 (3) of the Patent Law). The amount must be decided by reference to the “profits that the employer, etc. will make from the invention” (Section 35 (4) of the Patent Law), but as there are no public calculation standards for this¹, there is no other way but to wait for the accumulation of court decisions and information gathered from actual practices.

The profits that the employer will make from the invention should be considered as including not only the profits from merely working the invention, but also the benefits gained by enjoying exclusive profits². Therefore, those profits do not only include the profits the employer gained by having a third party work the invention or transferring the right to a third party, but also the profits the employer gained by exclusively working the invention on its own³. Also, the profits of the employer are the profits objectively foreseen at the time of succession to or license of the right, which not only includes the license fee it actually received, but also the “profits that the employer will make,” including the case where the company works the invention by

¹ In Germany, detailed standards for the remuneration are created by the Federal Minister for Labor (Rightlinie für die Vergütung von Arbeitnehmererfindungen im Privaten Dienst vom 20.7.1959), Bundesanzeiger Nr. 156 vom 18.8.1959, Beiträge, geändert 4.4.1967, BGBl. I S. 953). For details, see Nakayama, *Hatsumeishaken No Kenkyuu* (Study on Rights of the Inventor): pp. 166-; Kazuaki Tezuka, “*Nishi Doitsu No Shokumu Hatsumei Hoshou Shishin No Kaitei Ni Tsuite* (About Revision of East German Guidelines on Compensation for Employees’ Inventions),” Patent News, No. 7141. In Japan, there is “*Kokka Koumuin No Shokumu Hatsumei Ni Taisuru Hoshoukin Shiharai Youryou* (Outline on Payment of Compensation for Employees’ Inventions Made by Government Officials)” (JPO, 59 *Tokusou*, No. 1366, 1984) regarding government officials.

² Aoyagi, *supra* note 1 in (3) (a): p. 296. Tokyo District Court decision on December 23, 1983, Court Decisions Relating to Intangible Property, Vol. 15, No. 3: p. 844 (the Stainless Steel Gold Plating Method case) ([Annotation] Edited by Ichirou Kobashi/Kouichirou Senmoto, *Chiteki Zaisanken Hanrei Kenkyuu* (Study on Court Decisions Relating to Intellectual Property) (Japan Intellectual Property Association, 1989): p. 49 [Kouichi Fujiwara]; Hiroya Kawaguchi, *Hatsumei* (Invention), Vol. 81, No. 11: p. 66; Tatsuki Shibuya, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition) Case 16); Osaka District Court decision on April 26, 1984, Court Decisions Relating to Intangible Property, Vol. 16, No. 1: p. 282 (the Automatic Focusing Device case); and its *Koso*-appeal trial, which is the Osaka High Court decision on November 28, 1984, Court Decisions Relating to Intangible Property, Vol. 16, No. 3: p. 733.

³ For that reason, Section 35 of the Patent Law would be applicable regarding the remuneration even if the employer did not file a patent application for the invention but kept it secret as know-how, and the remuneration would be calculated by considering the profits gained by practically obtaining exclusive status (Tokyo District Court decision on December 23, 1983, *supra* note 2). In the Tokyo District Court decision on September 30, 1992, Court Decisions Relating to Intellectual Property, Vol. 24, No. 3: p. 777 (the Triangular Plate case), the court stated that matters which occurred after the transfer, such as whether or not the invention was registered as a patent, and whether or not the invention was worked or licensed (as well as the amount of the license fee) can also be referred to as data for determining a reasonable remuneration.

itself.

In calculating the remuneration, the Law provides that it shall be “decided by reference to the amount of contribution the employer, etc. made to the making of the invention” (Section 35 (4) of the Patent Law)⁴.

Although it is not a matter of the amount of remuneration, many companies do not pay the whole amount of remuneration upon the succession to or license of the right but, instead, divide payment into compensation for the filing of the application, compensation for the registration, compensation for the working, and so on. This should be considered as one valid method of payment⁵.

Furthermore, payment of remuneration and the transfer or the like of the right do not necessarily have to be conducted concurrently⁶. The transfer or the like can be made at the time mentioned in (A) above, and it is not permissible for the employee to refuse to cooperate in the procedure for the transfer of the right due to the reason that the remuneration is not paid concurrently.

(4) Other Issues

(A) Right to obtain a patent in another country

⁴ See *Shokumu Hatsumei To Hoshoukin* (Relation between Employees' Inventions and Compensation), edited by the research center of the Japan Institute of Invention and Innovation, (Japan Institute of Invention and Innovation, 1988). Concrete examples are as follows: (i) a case where the employer invested an enormous amount of research funds, and the research facilities and the staff were fully utilized, and as a result, the compensation was determined to be an amount equivalent to 5% of the technical cooperation fee which the company gained as a remuneration for the working of the invention (Tokyo District Court decision on September 28, 1983, Court Decisions Relating to Intangible Property, Vol. 15, No. 3: p. 620 (the Tokyu-style Precast Concrete Pile case), [Annotation] Kazuhiko Takeda, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Cases) (Second Edition) Case 15; Mutsuo Ooya, *Tokkyo Kanri* (Patent Management), Vol. 34, No. 6: p. 747); (ii) a case where the remuneration to the employee was judged to be slightly below 10% and 7% (different percentages were applied to two inventions) of the license fee the employer would gain if the employer were to grant a license to a third party (Tokyo District Court decision on December 23, 1983, *supra* note 2); and (iii) a case where the reasonable remuneration was determined to be 65% (considering the contribution made by the employer) of an amount equivalent to the license fee (2% of the estimated amount of sales) that the employer would receive if it were to grant a license to a third party (Tokyo District Court decision on September 30, 1992, *supra* note 3). In nature, this issue should be determined case-by-case, by taking all related circumstances into consideration.

⁵ Osaka District Court decision on April 26, 1984 (*supra* note 2); for a similar opinion, see Yoshifuji, *Tokkyo Hou* (Patent Law): p. 243.

⁶ Osaka District Court decision on May 18, 1979 (*supra* note 10 in (3) (b)).

Section 35 of the Patent Law provides for the way in which employees' inventions should be handled in Japan, and does not provide for how they should be handled in other countries. When an employee makes an employee's invention in Japan, the question of how it would be handled in another country depends on the law of that country (not only patent law, but also international private law). It is effective to stipulate in advance to the effect that if the employee has the right to file a patent application in another country, the right shall be transferred to the employer¹.

The handling of the right in other countries is determined by the laws of the respective countries. In many countries, an employer who is the transferee can file the patent application under its own name, but there are countries like the United States that do not approve transfer of the right to file a patent application. The problem would be with the processing in the case where it has been stipulated in Japan by contract or other means to transfer to the employer the right to obtain a patent in a country that does not approve transfer of the right to file a patent application. Although such transfer is lawful in Japan, the filing of a patent application by the transferee is not allowed in the United States even if it was agreed upon between the parties concerned, so the specific content of such contract or other arrangement would be susceptible to different interpretations. The essence of such a contract or one-sided indication of an intention is to grant a patent right, which is an exclusive right, to the employer. Therefore, in Japan, the contract or the like should not be interpreted as being invalid, but should be construed to have an effect that is as close as possible to its content. In many cases, the reasonable intention of the parties in the case of contract or the content of the intention in the case of one-sided display of an intention is presumed to be to file a patent application in the employee's name with the necessary fees paid by the employer, and to transfer the right while the application is pending.

(B) Relation between joint inventions and employees' inventions

In the case of a joint invention, the right to obtain a patent is commonly owned by all inventors concerned, and one's share of ownership cannot be transferred without the consent of all the other joint owners (Section 33 (3) of the Patent Law). It would not be a problem if all the inventors are employees of the same employer, but if they are

¹ There is also a theory that a stipulation to have the right to obtain a patent overseas automatically transferred to the employer is invalid (Enatsu, *Hiyousha Hatsumei Seido* (Employees' Invention system): p. 566), but the Patent Law does not mention anything regarding this matter. In order to make such a stipulation invalid, there needs to be a ground outside the Patent Law (e.g. being against public policy), but it is difficult to consider that while the right in Japan is effective under the Patent Law it is against public policy in the case of an overseas patent.

hired by different employers, the relationship would be complicated. Since joint research is becoming increasingly common recently in large-scale R&D in order to diversify the risks and for other reasons, various problems are occurring as a result.

In such a case, each employee will deal with the related right with his/her own employer, but the consent of all the other joint owners would be required for transferring his/her share of the right to obtain a patent (Section 33 (3) of the Patent Law) or his/her share of the patent right (Section 73 (1) of the Patent Law), or for granting an exclusive license (Section 73 (3) of the Patent Law). Thus, although it is an employees' invention, the employee needs to gain the consent of the other joint owners to transfer, etc. those rights to the employer. If the consent of the other inventors cannot be gained, the employer will not be able to succeed to or obtain a license to the right even if there is a stipulation as to the succession or license. Nevertheless, there is no reason to blame the employee if the right cannot be transferred for such cause.

If one of the joint inventors is one's employee and that invention falls under an employee's invention, the employer should be justifiably entitled to a non-exclusive license for the invention, even when the right cannot be succeeded to¹.

In any case, if there are multiple employers concerned, the relationship among their rights would be extremely complicated, so it is desirable to sort out the handling of the rights by contract in advance when conducting joint research.

(C) Directors' inventions

¹ It may seem doubtful that the employer can have a license to the entire invention despite his/her employee being only one of the joint inventors, but this should be the proper interpretation, because a person having a share of a patent right can work the entire invention regardless of the amount of the share owned (Section 73 (2) of the Patent Law).

Any transaction between a company director and that company requires approval of the board of directors (Article 265 of the Commercial Code). Then, is the approval of the board of directors also required when transferring the rights to an employee's invention made by a director to the company or granting an exclusive license for it to the company? Many theories say that the approval is required¹, but that is unrealistic. The approval of the board of directors should only be required for a transaction that causes a conflict of interests between the company and the director, and should not be uniformly required for all transactions².

An invention made by a director should not require the approval of the board of directors, as long as it is processed under the same stipulation as that for other employees. As patent applications often need to be filed quickly, appropriate timing may be lost by waiting for the board of directors' meetings that are usually only held once or twice a month, and could rather bring disadvantage to the company, which runs contrary to the purpose of Article 265 of the Commercial Code to protect the company. This issue is very important, because there are a large number of directors that concurrently serve as employees in Japan.

It goes without saying that the approval of the board of directors would be required for providing a special remuneration that is different from that for general employees to the director who made the invention.

¹ Toyosaki, *Kougyou Shoyuiken Hou* (Industrial Property Law): p. 149; Yoshifuji, *Tokkyo Hou* (Patent Law): p. 241; Zennosuke Nakagawa/Koue Toyosaki, *Jitsuyou Houritsu Jiten* (Practical Dictionary of Law) [Monya] (Dai-ichi Hoki Publishing, 1972): p. 48; Senmoto, *Tokkyo Hou* (Patent Law): p. 78. In the Tokyo District Court decision on December 23, 1983, Court Decisions Relating to Intangible Property, Vol. 15, No. 3: p. 844 (the Stainless Steel Gold Plating Method case), the court stated in opposition to the defendant's allegation of the transfer being invalid because it had not gained the approval of the board of directors meeting, that a report on preparation of the filing of the application had been made in the board of directors, so that should be recognized as the approval. The approval of the board of directors was not taken up as a big point of issue in this court decision. If, supposing that the question was considered to be whether or not the transfer caused a conflict of interests, the issue should rather be the amount of remuneration for the transfer instead of whether or not the transfer was approved. This is because the transfer itself brings nothing but profits to the company, so the only way the company's profits are harmed is when the amount of remuneration is too high. Therefore, this court decision is insufficient to conclude that the approval of the board of directors is required under case law.

² For instance, if a director of a bank deposits money as a general user, it may technically be a transaction with the company, but does not cause a conflict of interests, so it does not require the approval of the board of directors.

6. Inventive Ability of a Legal Entity

Since the Meiji period, there have been disputes in Japan over whether or not a legal entity has inventive ability, in connection with the issue of the theoretical concept of legal entities (judicial persons). Under the theory that considers a legal entity to be a legal fiction, a legal entity has no inventive ability because invention is a factual act¹. On the other hand, under the theory that considers a legal entity to be something that actually exists, a legal entity has inventive ability².

It is not only inappropriate to discuss the issue of employees' inventions based on the theoretical concept of legal entities as was done in the past, but it has also obstructed elucidation of the theory of the employees' invention system. It is clear that an inventive act is actually conducted by an employee, who is a natural person, so the point of issue is to whom the result of the employee's mental labor should originally be attributed. This issue should not be resolved by discussions on the theoretical concept of legal entities, but should be solved separately for each respective legal domain concerned³. Therefore, ultimately, the answer to this issue should be derived by examining the legislative concept of the Patent Law.

As mentioned earlier, the Japanese Patent Law is based on the concept that an invention is made by a natural person to whom the rights to the invention originally belong, which also applies to employees' inventions. In addition, an inventor has the inventor's right of credit (inventor's personal right), which is the right to be mentioned as the inventor in a certificate of patent⁴. If the name of a legal entity were identified as the inventor, the significance of the right of credit would be greatly reduced⁵. Both

¹ Sadajirou Sugimoto, "Tokkyo Hou Taii (Precis of the Patent Law) (3)," *Kokka Gakkai Zasshi* (National Academic Journal), Vol. 20, No. 6: p. 11; Kiyose, *Tokkyo Hou* (Patent Law): p. 107.

² Matsumoto, *Tokkyo Hou* (Patent Law): p. 52; Masatarou Fujie, *Kaisei Tokkyo Hou Youron* (Gist of the Amended Patent Law) (Genshoudou, 1922): p. 10; Nobuo Monya, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions), Case 2. Toshiaki Oda, "Houjin No Hatsumei Nouryoku Ni Tsuite (Inventive Ability of a Legal Entity)," *Hatsumei* (Invention), Vol. 55, No. 11: p. 16 basically adopts the theory that considers a legal entity to be something that actually exists, but mentions that it does not have a factual ability with regard to making inventions so the concept of a "business's invention" must be abandoned.

³ With regard to the question of to whom the tangible article should originally belong when an employee manufactures a tangible article, it is considered that the article originally belongs to the employer irrespective of the theoretical concept of legal entities. So, there is no reason to bring up the issue of the theoretical concept of legal entities only in the case of invention.

⁴ Article 4bis of the Paris Convention, Section 36 (1) (ii) of the Patent Law, Form 26 stipulated in Section 23 (1) of the Regulations under the Patent Law, Section 64 (2) (iii) of the Patent Law, Forms 67 and 68 stipulated in Section 66 of the Regulations under the Patent Law.

⁵ Nakayama, *Tokkyo Houshiki Mondai* (Patent Formality Issues): p. 199.

the JPO's practices and court decisions⁶ interpret that an invention originally belongs to the natural person who made the invention⁷.

Item 4 Aliens

1. Aliens' Eligibility to Enforce Rights

Today, as international exchanges are dramatically increasing in all areas including among people, commodities, capital, and information, many countries around the world recognize aliens' eligibility to enforce rights, in principle. The Civil Code of Japan also acknowledges private rights of aliens under Article 2, unless prohibited by law or treaty. In connection with this, Section 25 of the Patent Law provides for cases in which aliens can enjoy the individual eligibility to enforce rights concerning patents. According to this section, an alien has the individual eligibility to enforce rights related to a patent in the following three cases.

⁶ Tokyo District Court decision on March 16, 1955, Civil Court Decisions in Lower Courts, Vol. 6, No. 3: p. 479 (the Rubber Swimming Bladder case) ([Annotation] Koue Toyosaki, *Shouji Hanrei Kenkyuu* (Study on Commerce-related Court Decisions) Fiscal 1955: p. 210; Monya, *supra* note 2; Haruo Gotou, *Tokkyo Hanrei Hyakusen* (Second Edition), Case 11) is a case under the old Patent Law, but still serves as a valuable precedent even under the current law.

⁷ For details, see Nakayama, *Hatsumeishaken No Kenkyuu* (Study on Rights of the Inventor). For an opposing theory, see Monya, *supra* note 2, and for an opinion that tries to find the inventive ability of a legal entity through legislation, see Toshiaki Oda, "*Houjin No Hatsumei Nouryoku Ni Tsuite* (Inventive Ability of a Legal Entity), *Hatsumei* (Invention), Vol. 55, No. 11: p. 16.

The first is the case where the alien is domiciled or has a residence (or is established, in the case of a legal entity) in Japan. This requirement is written in the same manner as the provision on patent administrators residing abroad (Section 8 of the Patent Law) and the provision on the scope of powers of attorney (Section 9 of the Patent Law). A domicile refers to the base and center of one's life, and one does not need to have an intention to settle there permanently. A tentative address cannot be considered to be a domicile in this context. A residence refers to a place which one continuously inhabits although it is not the base and center of one's life (Article 22 of the Civil Code). An establishment refers to a place where one conducts business with a continued intention, but does not necessarily coincide with the concept of the place of business of a foreign company stipulated in Article 479 of the Commercial Code, and its substance must be determined from the perspective of the Patent Law. The concept of an establishment that serves as the basis for the individual eligibility to enforce rights also exists in the Paris Convention (Articles 2 (2) and 3), so its meaning should be interpreted as being consistent with that in the Convention. The establishment mentioned here includes all establishments that are practically engaged in business, except for those that exist only in name. It does not merely refer to stores¹, but also places such as factories and farms.

The second is the case where the alien is a national of either a country that provides a national treatment to Japanese people or a country that adopts the reciprocity principle. In short, the Patent Law provides that if the patent-related rights of Japanese nationals are recognized in the alien's country under the same conditions as those for the nationals of that country, the patent-related rights of that country's nationals will also be acknowledged in Japan².

The third is the case where there are specific provisions in a treaty. The Paris Convention is the most important treaty, but there are also countries that conclude individual treaties with Japan³.

¹ Toyosaki/Nakayama, *Radasu Kokusai Kougyou Shoyuiken Hou* (Ladas International Industrial Property Law): p. 1224.

² An alien may be ordered to submit a document proving that the alien's country adopts the reciprocity system, when filing a patent application (Section 7 (2) of the Regulations under the Patent Law). Submission of the document is not required for the following countries that are designated by an official announcement (Announcement No. 149 of the Ministry of Economy, Trade and Industry in May 1960): Pakistan, Argentina, Chile, and Hong Kong (among these, some have lost their significance as a country). Once an alien submits the document and the JPO confirms it, subsequent aliens of that country do not have to submit the document. For details, see Nakayama, *Chuukai Tokkyo* (Annotated Patent Law), Vol. 1: p. 163 [Nakayama].

³ Countries that have concluded individual treaties with Japan are India, Peru, Pakistan, and El Salvador. However, as these countries are members of the WTO, these individual treaties have lost

Aliens who are not nationals of the countries that fall into one of the above three categories cannot enjoy the individual eligibility to enforce rights concerning patent, but such people would be rare in reality.

The rights related to patents mentioned here are not only substantive rights such as the right to file a patent application, but also include procedural rights such as the right to demand a trial for invalidation⁴.

Due to the economic globalization trend, harmonization efforts are being made with respect to the patent system and all the other intellectual property systems. It is desirable to settle the issue in a way that recognizes the broadest possible rights of aliens. An ideal theory would be to eliminate the reciprocity principle and to open up the door to all aliens⁵, but then countries that have no patent system and countries that discriminate against aliens would have no incentive to rectify such situations. In practice, however, there are no substantial problems relating to this issue, because the Paris Convention and the TRIPS Agreement, to which more than 100 countries have acceded, adopt the national treatment principle.

2. Definition of Alien

their meaning.

⁴ See the court decision in note 1 in 3. “Nationals of Countries with which Japan Denies Diplomatic Relations” mentioned later (the Case where a National of a Country with which Japan Denies Diplomatic Relations Demanded a Trial for Invalidation of a Trademark Registration). For an opposing opinion, see Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 27.

⁵ The newest industrial property law, the “Law Concerning the Circuit Layout of Semiconductor Integrated Circuits” (the so-called Semiconductor Chip Law) (Law No. 43 of 1985) does not adopt the reciprocity principle, but recognizes ownership rights for all aliens. Meanwhile, the U.S. Semiconductor Chip Protection Act adopts the reciprocity principle, but since this was the world’s first legislation of its kind, it is said to have been intended to promote similar legislation in other countries.

A person who does not have Japanese nationality is referred to as an alien. Under the Patent Law, a stateless person should also be considered as an alien¹. However, the JPO Commissioner can order submission of a nationality certificate when he/she recognizes it to be necessary in connection with the procedures taken by an alien (Section 7 (1) of the Regulations under the Patent Law), so a stateless person may be subject to a restriction only in that respect. Nevertheless, it should be considered that an alien who is domiciled or has a residence in Japan does not fall under the case that requires a nationality certificate. In addition, an alien who is domiciled or has a residence in a member state of the Paris Convention should be treated according to the interpretation of the Paris Convention (Section 26 of the Patent Law), and as a result, such alien would have the eligibility to enforce rights concerning a patent².

3. Nationals of Countries with which Japan Has No Diplomatic Relations

¹ Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 27; Yoshifuji, *Tokkyo Hou* (Patent Law): p. 247; Gotou, *Pari Jouyaku Kouwa* (Lecture on the Paris Convention): p. 83.

² In practice, a stateless person who is domiciled or has a residence in Japan or in a member state of the Paris Convention must submit a written proof or oath to that effect or a written proof or oath stating that he/she has no nationality upon filing a patent application or taking an appeal/trial procedure (Formality Examination Manual, Generalities: p. 2).

There is a question as to whether or not eligibility to enforce the rights concerning patent in Japan is recognized for a national of a country with which Japan does not have diplomatic relations, but which recognizes such eligibility for Japanese nationals or adopts the reciprocity principle. There is only one court decision regarding this matter¹. The gist of the decision is that the question of whether or not to diplomatically acknowledge a country as a state is only an issue in diplomatic policy, and as long as the country satisfies substantive requirements for a state, it complies with the purpose of the reciprocity principle and it is reasonable on the basis of the equality principle of the Paris Convention to recognize rights related to patents for that country's nationals. This conclusion is reasonable, and is not controversial in theory either. Nevertheless, even if the country with which Japan denies diplomatic relations were a member of the Paris Convention, the Convention would not take effect between that country and Japan due to the lack of diplomatic relations. Therefore, nationals of such country would not be able to enjoy the benefits of the Paris Convention, such as the right of priority, in Japan, and would consequently be considerably disadvantaged in reality.

4. Effect of Violation of Section 25 of the Patent Law

A patent application that violates Section 25 of the Patent Law is rejected (Section 49 (2) of the Patent Law). Even if the application were registered, the violation serves as a ground for invalidation (Section 123 (1) (ii) and (vii) of the Patent Law), and once a trial decision of invalidation becomes final and conclusive, the patent lapses retroactively (Section 125 of the Patent Law). However, if the patent owner becomes ineligible to enforce the rights related to a patent after the patent registration, the patent becomes invalid from that point (proviso of Section 125 of the Patent Law).

¹ Tokyo High Court decision on June 5, 1973, Court Decisions Relating to Intangible Property, Vol. 5, No. 1: p. 197 (the East Germany case) ([Annotation] Saburou Kuwata, Jurist, No. 553: p. 151; Akihiro Gotou, *Shougai Hanrei Hyakusen* (100 Selected Court Decisions relating to Foreign Affairs) (Enlarged Edition): p. 282; Shouichi Kidana, *Shougai Hanrei Hyakusen* (Second Edition) Case 119; Teruo Doi, *Kigyuu Hou Kenkyuu* (Study on Business Law), No. 235: p. 2). In this case, the plaintiff, who was a legal entity of the German Democratic Republic with which Japan had no diplomatic relations, demanded a trial for invalidation of a trademark registration, but since the demand was dismissed by the JPO, the plaintiff filed a suit against the JPO's trial decision. Although it is a case under the old Trademark Law (Law of 1921), it also serves as a valuable precedent under the current law. This case is not related to recognition of rights, but to procedures. The *Jokoku* appeal for this case was dismissed on the ground that the original decision was reasonable, as mentioned in the Supreme Court decision on February 14, 1977, Court Decision Journal, No. 841: p. 26.

If a patent right is transferred from the patent holder to an alien who is ineligible to enforce the patent rights, the patent right itself does not become invalid, but the transfer is invalid¹.

Subsection 2 Subject Matter of Right

Item 1 Definition of the Subject Matter of Right

1. Definition of an Invention

¹ Oda/Ishikawa, *Shin Tokkyo Hou* (New Patent Law): p. 28

The subject matter of a patent right is an invention, but only a few patent laws in the world stipulate the definition of an invention¹. The old Japanese Patent Law (Law of 1921) did not have definition provisions either, so the definition was left to scholars' theories and court decisions. However, as post-war legislation often included definition provisions and because the definition of an invention is important, the definition was stipulated in Section 2 (1) of the Patent Law for the purpose of clarification².

According to the Patent Law, "'invention' means the highly advanced creation of technical ideas by which a law of nature is utilized" (Section 2 (1) of the Patent Law). This is considered to be based on the definition by Kohler³. Many theories are more or less based on a similar concept, though the expressions may be slightly different.

At the same time, there are also theories that indicate doubts in establishing a definition of an invention in patent law⁴. Indeed, there may be a point in the opinion that it is sufficient for patent law to only define patentable inventions, and there is no need to create a definition of inventions in general in patent law⁵. As long as patent law protects inventions, a definition of inventions is not meaningless. However, there remains the question of whether it should be stipulated in patent law or should be left to scholars' theories and court decisions. If it is stipulated in patent law, the concept of an invention would be clarified, and it would be easier to determine the scope of application of the law. On the other hand, the concept of an invention would be fixed, so there is a slight possibility that the law would not be able to meet the new demands of the times. Particularly in an era of tremendous technological innovation as in recent years, some newly emerging technologies do not fit the concept of an invention in the

¹ Some patent laws have formal definition provisions, but practically do not define what an invention is, such as "the term 'invention' means invention or discovery" (35 U.S.C. 100 (a); here a "discovery" implicitly suggests a selection invention). Meanwhile, the United Kingdom had certain definition provisions in the Law of 1949 (§ 101 (1)), but deleted them in the Law of 1977.

² JPO, *Chikujou Kaisetsu* (Clause-by-Clause Explanation of Industrial Property Laws): p. 21.

³ Kohler, *Lehrbuch des Patentrechts* (1908), S.13. Takeo Suzuki, "*Koora No Hatsumei No Gainen* (Kohler's Concept of Invention)," *Tokkyo To Shouhyou* (Patents and trademarks), Vol. 3, No. 9: p. 29.

⁴ Isay, *Patentgesetz und Gesetz betreffend der Schutz von Gebrauchsmustern*, 5. Aufl., S. 41., Elster, *Urheber und Erfinder, Warenzeichen und Wettbewerbsrecht*, 2. Aufl., S. 284. *Tokkyo Hou Seminaa* (Patent Law Seminar) (1) *Hatsumei* (Invention) (Yuhikaku, 1969): p. 12 (Statement by Hara).

⁵ The current Japanese Patent Law defines inventions in general in Section 2 (1) and mentions that, of such inventions, those that satisfy the requirements in Section 29 are patentable. For an opinion that reveals doubts about separately stipulating a definition of inventions in general and another one for patentable inventions, see Monzou Takino, "*Hatsumei No Teigi* (Definition of an Invention)," *Hougaku Shimpou* (Courant on Law), Vol. 74, No. 11/12: p. 55; Takeshi Akiyama, "*Hatsumei, Hakken, Shinkisei* (Invention, Discovery, Novelty)," *Tokkyo Kanri* (Patent Management), Vol. 12, No. 1: p. 12.

conventional sense⁶. In order to deal with such needs promptly, it may be better to leave the definition of inventions to theories and court decisions⁷.

The Japanese Patent Law has a certain definition provision, but its details are left to theories and court decisions. The following section discusses the content of that definition.

2. Utilization of a Law of Nature

⁶ For instance, computer software and biological inventions constitute kinds of such new technologies. Of course, the question of whether or not it is appropriate to protect all of these new technologies by patent law should be examined, but at least it is a fact that patent law loses flexibility by including provisions on the definition of inventions.

⁷ Akiyama, *supra* note 5: p. 12.

First of all, an invention must utilize a “law of nature” (Section 2 (1) of the Patent Law). Usually, utilization of a law of nature is comprehended as having the same meaning as utilization of elemental forces¹. A law of nature itself (e.g. the universal law of gravitation) cannot be considered as utilization of a law of nature, so it is not an invention.

The term law of nature in this context should be interpreted as indicating only that mere mental activities², pure and simple academic principles³, artificial arrangements⁴, and so forth are excluded.

Court decisions also hold that ciphering methods combining characters, numbers and symbols are not inventions for they do not utilize a law of nature⁵, and an

¹ For a theory that shows doubts about taking the laws of nature to mean the same as elemental powers, see Takeshi Akiyama, “*Hatsumei, Hakken, Shinkisei* (Invention, Discovery, Novelty),” *Tokkyo Kanri* (Patent Management), Vol. 12, No. 1: p. 15. The definition that an invention must utilize a law of nature simply adopts the theory advocated from the 19th to the 20th century. In those times, the system of patents for substances was not popular and the concept of selection inventions was still not clear. As a matter of course, the presently disputed technologies such as computer software and biotechnology did not exist. Therefore, today, it is necessary to interpret the concept of a law of nature quite broadly, in which case there is hardly any meaning in debating over the difference in the meaning between a law of nature and elemental powers.

² For example, memorization techniques and methods of displaying and selling goods (these may contribute to greatly increasing sales, but they only utilize people’s psychology; some of them could be protected as trade secrets, but those like display methods, which would become publicly known, cannot be protected as trade secrets), melodies, rhythms, etc.

³ For example, mathematical principles such as the Pythagorean theorem, economic principles, legal principles, etc.

⁴ For example, rules of sport and games, cipher code books, etc.

⁵ There are two cases concerning cipher. Both of them are cases under the old Patent Law, but the concept of inventions is considered to have not changed from the old Law in the current Law, so they are valuable precedents even under the current Law. It should rather be regarded that Section 2 (1) of the current Law was created through these precedents. The Tokyo High Court decision on February 28, 1950, Court Decisions in Administrative Cases, Vol. 1, No. 7: p. 1066 (the Alphabetic Single Cable Code Creating Method case) ([Annotation] Yoshihito Aratama, Patent, Vol. 6, No. 5: p. 11), and its final instance, the Supreme Court decision on April 30, 1953, Civil Court Decisions by the Supreme Court, Vol. 7, No. 4: p. 461 ([Annotation] Tamotsu Aoyama, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition) Case 2; Masateru Katsumoto, *Saikousai Minji Hanrei Hihyou* (Remarks on Supreme Court Decisions in Civil Cases) FY 1953: p. 165); Tokyo High Court decision on November 14, 1953, Court Decisions in Administrative Cases, Vol. 4, No. 11: p. 2716 (the Japanese-Character Single Cable Code Creating Method case) ([Annotation] Kousaku Yoshifuji, *Tokkyo Hanrei Hyakusen*, Case 1). While it may be clear in consideration of the times in which these cipher-related court decisions were handed down, the cipher methods mentioned here are classical ones that used random code tables. Such cipher methods merely utilize artificial principles and do not utilize a law of nature. However, current encryption technologies are completely different. Encryption technologies are indispensable for the spread of electronic money and e-commerce, which will become increasingly important in an information era. The recent encryption technologies are practically software, so the issue of their patentability is the same as the issue of the patentability of software. In fact, many encryption technologies have been patented.

advertising method to display advertisements by moving them in rotation around a few sets of utility poles and billboards, using a catch on each pole, does not constitute an invention because it does not utilize elemental powers in any way⁶.

Given that a law of nature must be utilized, those things that are against a law of nature are not inventions. An eminent example that runs against a law of nature is a perpetual motion machine, and this cannot be regarded as an invention⁷.

Further, even if something is created through a mistaken understanding of a law of nature, if a certain result is derived therefrom, it would be an invention⁸.

Conventionally, there had been disputes over the questions of whether or not inventions of substances and inventions of uses utilize a law of nature. Nevertheless, this question has been resolved for both of them. Presently, not only are new

⁶ Tokyo High Court decision on December 25, 1956, Court Decisions in Administrative Cases, Vol. 7, No. 12: p. 3157 (the Utility Pole Advertising Method case) ([Annotation] Mitsumasa Tooyama, *Hatsumeï* (Invention), Vol. 54, No. 7: p. 11; Yoshio Ishikawa, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition) Case 1). There was also a case where an invention of an electronic dressing table and mirror that places a television behind it to enable a person to see his/her back was judged unpatentable for merely being a method of arranging a television unit without a technical means utilizing a law of nature (Tokyo High Court decision on February 12, 1986, Patent News, No. 6901). Also, it was held that a device to use the margins of a book as spaces for spot announcements to deliver entertaining content and advertisements is not sufficient to be protected as a utility model in a Tokyo High Court decision on July 31, 1951, Court Decisions in Administrative Cases, Vol. 2, No. 8: p. 1273 (the Spot Announcement Device case) ([Annotation] Nobuo Monya, *Tokkyo Hanrei Hyakusen* (Second Edition), Case 7).

⁷ Tokyo High Court decision on April 4, 1952, Court Decisions in Administrative Cases, Vol. 3, No. 3: p. 563 (the Perpetual Motion Machine case); Tokyo High Court decision on March 31, 1956, Court Decisions in Administrative Cases, Vol. 7, No. 3: p. 640 (the Self-Generator case); Tokyo High Court Decision on June 27, 1967, Court Decisions in Suits Against Appeal/Trial Decisions, 1967: p. 441 (the Homopolar Direct Current Generator case); Tokyo High Court decision on June 29, 1973, The Law Times Report, No. 298: p. 255 (the Infinite Power Generating Method case) ([Annotation] Hidetaka Aizawa, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition), Case 6). Masahiko Gotou, *Eikyuu Kikan No Yume To Genjitsu* (Dreams and Reality of Perpetual Motion) (Japan Institute of Invention and Innovation, 1988) describes in detail that a perpetual motion machine is impossible as it goes against a law of nature, the energy conservation law. There is also an idea that an infeasible invention such as a perpetual motion machine can be patented, because it would cause no actual harm. In the United Kingdom, perpetual motion machines are patented, because although they are unfeasible, they may be applied in some other inventions.

⁸ Yoshifuji, *Tokkyo Hou* (Patent Law): p. 51; Mitsubishi, *Tokkyo Hou* (Patent Law): p. 98. The court held that even if the creator of a device lacked awareness or had erroneous awareness of the causal relation or theoretical relation between the means to solve the problem and the action/effect, it does not affect its ability to be protected as a device in a Tokyo High Court decision on October 29, 1987, Court Decisions on Intangible Property, Vol. 19, No. 3: p. 409 (the Drum Brake Shoe Supporting Mechanism case). A similar decision was rendered in a Tokyo High Court decision on September 28, 1997, Court Decisions in Suits Against Appeal/Trial Decisions, 1993: p. 159 (the *Dokudami* Deodorizing Method case). In short, it is sufficient to have a certain effect achieved by a specific technical means that utilizes a law of nature, even if, in extreme cases, it may appear as a devilment to the inventor.

substances patentable, but also inventions of new uses for known substances are also patentable⁹.

The question of whether an invention utilizes a law of nature is probably the most difficult for computer software. Software is a system for creating and executing a program, which can be boiled down to a method of use of a computer. While its core part is a program, it does not solely consist of a program. The system design specifications, flow charts, and manuals are also included in the software. A program is a combination of instructions for processing information on a computer, and the question is whether or not it utilizes a law of nature. A program itself is similar to a mathematical formula merely expressing human mental processes, so if a program (program list) is filed for a patent, it would be refused as not utilizing a law of nature¹⁰. However, the eligibility of an invention to qualify as an invention under the statute is not immediately denied merely because the invention partially includes a program. In other words, if the program is filed in combination with hardware as a method/device for enhancing or controlling the hardware performance or as a computer-readable storage medium on which a program is recorded¹¹, it may be registered¹². In fact,

⁹ The question arose for inventions of uses in connection with an invention regarding an insecticide. For instance, if one discovers that a known chemical substance called DDT has an insecticidal effect, he/she can obtain a patent for it as an insecticide containing DDT or an insecticidal method using DDT (Yoshifuji, *Tokkyo Hou* (Patent Law): p. 62). For details on inventions for uses, see Shouji Kamon, “*Youto Hatsumei Ni Tsuite* (One Use Invention),” Book Commemorating Judge Hara’s Retirement, Vol. 1: p. 145; Shouji Matsui, “*Iwayuru Youto Hatsumei No Jittai To Sono Kousatsu* (Actual Status of the So-Called Use Invention and Its Study),” *Tokkyo Kanri* (Patent Management), Vol. 15, No. 3: p. 181; Shouji Matsui, “*Kagaku Bussitsu No Youto Hatsumei To Tokkyoken* (Relation between an Invention of Use of a Chemical Substance and a Patent Right),” *Articles in the Memory of Professor Ishiguro*: p. 204; Souta Asahina/Yasuo Tamura, “*Youto Hatsumei* (Invention of Use),” *Tokkyo Kanri*, Vol. 19, No. 11: p. 903.

¹⁰ Examination Guidelines (1993), Part VIII, Chapter 1: p. 6. Many other countries also take the same attitude in legislation or case law. Article 52 of the European Patent Convention stipulates that computer programs are not patentable, and many European countries abide by this policy.

¹¹ Conventionally, a claim for a medium (medium patent) was not recognized. (“Revised Examination Guidelines” (published in June 1993) describes a “storage medium on which a computer program is recorded” as an example of “mere presentation of information,” which is listed as one of the “(5) Inventions that are not technical ideas” in Part II, Chapter 1, “Industrially Applicable Inventions”.) However, in “Implementing Guidelines for Inventions in Specific Fields” (adopted for applications filed on or after April 1, 1997), Chapter 1 “Computer Software Related Inventions,” 1. Description Requirement for Patent Specifications, 1.1 Claims, “A computer-readable storage medium having a program recorded thereon or a computer-readable storage medium having structured data recorded thereon” is described along with the process category and product category. There remains a legal question of whether the applications filed in the form of medium claims, which had been refused in the past for the reason that they are not technical ideas, can be accepted by mere change of implementing guidelines without legal amendment. Nevertheless, there is no doubt that medium claims will come to be important inventions in practice. The Implementing Guidelines position a medium claim as a kind of product claim, and provides the following as descriptive examples: “A computer-readable storage medium

many inventions, which are actually software as such, are registered in those forms¹³.

having a program recorded thereon; where the program is to make the computer execute procedure A, procedure B, procedure C, ..."; "A computer-readable storage medium having a program recorded thereon; where the program is to provide function A, function B, function C, ... to the computer."; and "A computer-readable storage medium having structured data recorded thereon; where the structured data comprises portion A, portion B, portion C, ..." As a matter of course, not all programs and data are patented even if they are filed as medium claims. To be eligible they must be statutory inventions; that is, technical ideas utilizing a law of nature.

¹² See "Examination Guidelines on Computer Program Related Inventions (Part I)" (1975); "Implementing Guidelines for Inventions Relating to Microcomputer-Applied Technology" (1982); Examination Guidelines (1993), Part VIII, Chapter 1, "Computer Software Related Inventions." According to the "Examination Guidelines (Part I)" above, if the theory used for attaining a specific result (causal relation of the method) does not utilize a law of nature (e.g. a program for obtaining the circle ratio by using the Monte Carlo method; or a program for solving *shogi* (Japanese chess) problems), the program does not utilize a law of nature. On the other hand, if the cause and effect relationship of the method utilizes a law of nature (e.g. a program that pays attention to the properties of a rolling machine and the nature of the rolled material, and utilizes such properties to control the rolling machine to roll the material into a specific shape), the program utilizes a law of nature. It further describes that a claim in the form of a program as such, a computer as such, a storage medium on which a program is recorded, or a programmed computer is not acceptable. These Examination Guidelines limit the form of the claim to a process claim. However, the subsequent Implementing Guidelines (1982) clearly state that medium claims are also patentable. Meanwhile, the Examination Guidelines (1993) state that if the information processing by the software utilizes a law of nature, or if a hardware resource is utilized (excluding mere use of a hardware resource), the program utilizes a law of nature, and cites many actual examples. The flowchart shown on page 6 of the Implementing Guidelines is attached hereto as a reference. See Software Information Center, "*Sofutowea Kanren Gijutsu No Arikata No Kenkyuu Houkokusho* (Study Report on Ideal Software-Related Technology)" (1996).

¹³ See Hirokazu Aoyama, *Sofutowea No Tokkyo* (Software Patents) (Kogyo Chosakai Publishing, 1993); Yoshiaki Aida, *Sofutowea Tokkyo Nyuumon* (Introduction to Software Patents) (Nikkan Kogyo Shimbun, 1993). Interesting changes have been observed in U.S. case law regarding this matter. The details can be referred to in the below-mentioned treatises. In short, the trend of the U.S. case law is toward recognizing patentability for a broader scope of inventions. In *Gottschalk v. Benson and Tabot* 409 U.S. 63 (1972) (invention of a method of converting numerical values in the binary coded decimal system into those in the pure binary system), after rendition of various decisions by lower courts, the court denied the patentability of this patent application using rather ambiguous language. It stated that if such patent were registered, it would monopolize the mathematical formula, which would virtually have an effect of patenting the algorithm itself. Later, in *Parker v. Flook* 437 U.S. 584 (1978), the court mentioned that a method is not denied of its patentability merely for including a mathematical algorithm, and in *Diamond v. Diehr* 450 U.S. 571 (1981), the court recognized the patentability of the invention of a method to control the vulcanization molding of rubber by using a computer. Ever since, inventions that are actually inventions related to software came to be widely patented. Recently, even a data processing method and a device for the cash management account of securities companies was patented (*Paine, Webber, Jackson and Curtis v. Merrill Lynch, Pierce, Fenner and Smith v. Reynolds* (Third Party Defendant) 564 F. Supp. 1358 (1983, D. Delaware)).

Grant of a patent for a method and a device for efficient resource allocation using linear programming called Karmarkar's Algorithm (applicable to inventory management, establishment of telecommunication networks, creation of timetables, IC chip designing, etc.) (U.S. Patent 4744026-8 (1988); its Japanese patent is Patent Registration No. 2033073.) was taken up as big news. With regard to this issue, see Norikazu Inaba, "*Suushiki Kaihou Kanren Hatsumei No Tokkyosei Ni Tsuite* (Patentability of Inventions related to Methods of Solving Mathematical Formulas)," Patent, Vol. 44,

For example, patents have been granted for inventions including a process of binary data conversion¹⁴, a medical processing system¹⁵, and a library management device¹⁶.

Utilization of a law of nature means that the invention abides by causality based on natural science, and the invention must always be able to attain the same effect; in other words, be repeatable¹⁷. However, repeatability does not necessarily mean that the same effect can be achieved with a 100% probability. If the effect can definitely be achieved with even a slight probability, the invention can be considered as repeatable¹⁸.

Repeatability is the most controversial issue for biological inventions. There is also a theory that denies repeatability of biological inventions, because unlike industrial products, organisms could develop individual specificity according to the environment and they are subject to mutation¹⁹. It is true that organisms have more noticeable individual specificity, but industrial products could also have individual

No. 1: p. 40.

For details on the situation in the United States, see Hiroshi Furusawa, “*Konpyuutaa Puroguramu No Tokkyosei Ni Tsuite* (Patentability of Computer Programs),” AIPPI, Vol. 19, No. 9: p. 2; Hiroshi Furusawa, “*Benson Hanketsu Igo No Konpyuutaa Puroguramu No Tokkyosei* (Patentability of Computer Programs after the Benson Case),” *Dokkyo Law Review*, No. 13: p. 1; Hiroshi Furusawa, “*Amerika Ni Okeru Konpyuutaa Sofutowea No Houteki Hogo No Doukou* (Trend of Legal Protection for Computer Software in the United States),” *Gakkai Nenpou*, No. 6: p. 1; Translated by Keiichi Yamamoto, “*Konpyuutaa Kanren Shutsugan Ni Kansuru Beikoku Tokkyo Shouhyouchou No Gaidorain* (USPTO Guidelines on Computer-related Applications),” AIPPI, Vol. 26, No. 12: p. 2; Frank Jordan (translated by Kanesaka), “*Amerika Gasshuukoku Tokkyo Shouhyoukyoku Ni Yoru Konpyuutaa Kanren Hatsumei No Gaidorian Kettei* (USPTO Decides Guidelines on Computer-related Inventions),” *Patent*, Vol. 35, No. 9: p. 65; Takeo Sawamura/Shin Uchihara, “*Keisanki Puroguramu Ha Tokkyo No Taishou Ni Naruka -- Beikoku Tokkyokyoku Ni Okeru Kouchoukai Kara* (Is a Computer Program Patentable? -- From the Public Hearing at the U.S. Patent Office),” *Tokkyo Kanri* (Patent Management), Vol. 16, No. 11: p. 653; Kansai Tokkyo Kenkyukai, Software Research Team, “*Konpyuutaa Kanren Hatsumei No Hogo* (1) - (26),” *Patent*, Vol. 35, No. 9: pp. 69-; Kansai Tokkyo Kenkyukai, Software Research Team, *Sofutowea Kankei No Tokkyo Ni Tsuite* (Software-related Patents) (Japan Institute of Invention and Innovation, 1987).

¹⁴ Patent *Koukoku* Publication No. *Showa* 56-46168.

¹⁵ Patent *Koukoku* Publication No. *Showa* 58-43779.

¹⁶ Patent *Koukoku* Publication No. *Showa* 58-51299.

¹⁷ The requirement that an invention be repeatable can also be derived from the viewpoint that the invention must be a technical idea. Theories in Japan are divided into one deriving the repeatability requirement from “utilization of a law of nature” and one deriving it from the fact that an invention must be a “technical idea.” However, there is no use in such arguments. It is sufficient to merely conclude that repeatability is required for a “technical idea by which a law of nature is utilized.” For a theory stating that technology includes the concept of utilizing a law of nature, see Shigeru Yoshida, “*Hatsumei No Honshitsu* (Essence of Invention),” in the Book Commemorating Judge Hara’s Retirement, Vol. 1: p. 83.

¹⁸ Generally speaking, the probability would be lower for more pioneering inventions. For instance, the pearl culturing invention of Koukichi Mikimoto is said to have had a very small probability for success.

¹⁹ Hattori, *Tokkyo Hou Yousetsu* (Introduction to the Patent Law): p. 61.

differences according to environmental conditions. Therefore, there should be no reason to deny repeatability of the invention, as long as the subject matter is a fixed specie or variety of organism²⁰. The question of whether or not it is appropriate to protect a new organism itself under the Patent Law is a matter of argument²¹, but at least, it is not reasonable to deny the patentability merely for the reason that such invention is unrepeatable. Nevertheless, as genes of organisms have not been sufficiently elucidated yet, it may be unavoidable for such inventions to be denied compared with industrial products at the current stage. It is only a matter of time for patents to be commonly granted for organisms themselves.

The above suggests that the concept of a law of nature has gradually come to be interpreted with a broader scope. Now there are calls for clarifying the current status of how utilization of a law of nature is functioning as a requirement today and, furthermore, for determining once again whether such requirement is truly necessary at present.

Legal protection cannot be extended to all achievements of human mental activity. Nevertheless, unless legal protection is extended to certain kinds of achievements, incentives for R&D would be lost. Thus, achievements that should be protected under the Patent Law and those that should not be protected must be distinguished from each other²². It can be concluded that the requirements of “industrial applicability” and “utilization of a law of nature” were adopted for that reason. However, the practical reason why utilization of a law of nature should be required is no longer so clear²³. In the core industries in the 19th century, specifically, the mechanical and chemical fields, these requirements were meaningful as markers for discrimination. Nevertheless, today, even an invention that is practically computer software itself tends to be regarded as a statutory invention depending on how the claims are described, so there is a call to review the significance of utilization of a law of nature²⁴. Is there truly no need to protect any of the technical ideas that do not

²⁰ Examination Guidelines (1993), Part VIII, Chapter 2 “Biological Inventions.”

²¹ “*Shokubutsu Tokkyo To Shubyo Hou* (Plant Patents and the Seeds and Seedlings Law)” edited by Nobuhiro Nakayama, (Kodansha, 1985). For the details of the Seeds and Seedlings Law, see: *Shubyo Hou No Kaisetsu* (Explanation of the Seeds and Seedlings Law) edited by Seeds and Seedlings Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries, (Chikyusha, 1983).

²² The achievements can either be distinguished based on whether or not they constitute a statutory invention, or whether or not they have patentability, but the conclusion is the same either way.

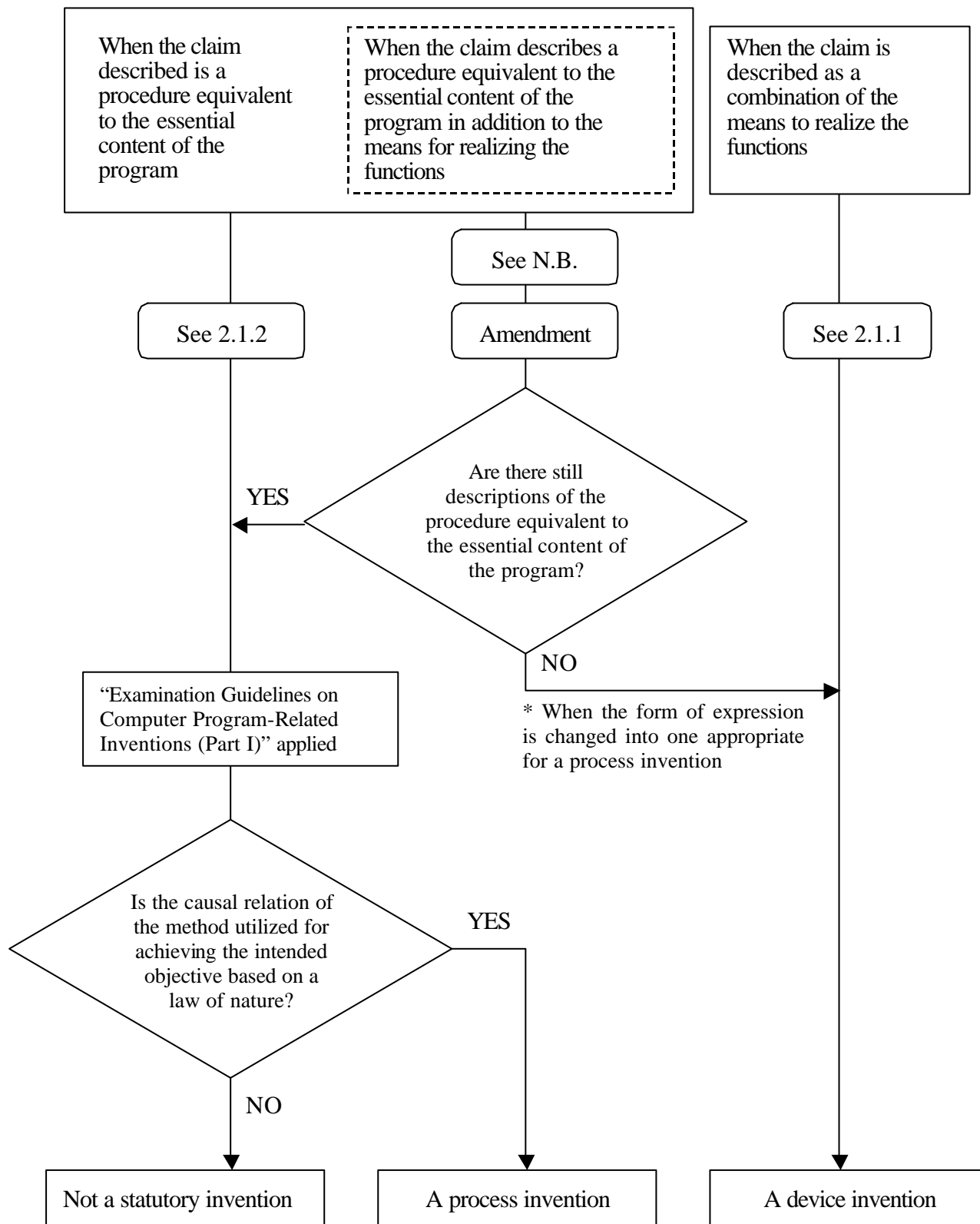
²³ Adoption of utilization of a law of nature as a requirement could have the function of roughly dividing science and technology, but today it is difficult to discriminate between the two.

²⁴ Kawaguchi, *Kouzou To Kadai* (The Structure of and Problems in the Patent Law): p. 40 advocates that the requirement of utilizing a law of nature should be abolished. If it were to be abolished, it

utilize a law of nature? It seems to be about time that we should look for a requirement that replaces the requirement of utilizing a law of nature, but we still do not have one yet. For the time being, we should interpret the requirement of utilizing a law of nature in a relaxed manner, and incorporate new requirements in the Patent Law if they are strongly demanded by society.

would be necessary to carefully study the impact.

Flowchart Indicating the Application of “Examination Guidelines on Computer Program-Related Inventions (Part I)”



N.B.: When the claim describes a procedure equivalent to the essential content of the program in addition to the means for realizing the functions, Examination Guidelines (Part I) is applied unless the descriptions of the procedure are changed to appropriate descriptions of the means for realizing the functions.

2.1.1: When the constituent features required for an invention relating to microcomputer-applied technology are described as a combination of the means for realizing the functions, it is a device invention, and there is no need to apply Examination Guidelines (Part I).

2.2.2: When an invention relating to microcomputer-applied technology includes a procedure equivalent to the essential content of the program as its constituent feature, examination should be made as to whether or not the “causal relation of the method” is based on a law of nature according to Examination Guidelines (Part I) in order to determine whether it is a statutory invention.

3. Technical Ideas

An invention must be a technical idea (Section 2 (1) of the Patent Law). A technique, or an “art,” is a concrete means for attaining a certain purpose¹, which needs to be feasible and repeatable. In other words, the same result must be attained even when a third party having the average level of skills in that technical field implements the art. Therefore, a mere skill (knack), a musical performance technique, and a sports technique are not arts². Mere presentation of information³ is not an art either.

A technical idea must not be abstract, but concrete. Accordingly, mere presentation of a problem alone or presentation of an idea without indicating a concrete method to solve the problem is not an invention⁴. Even if a method to solve the

¹ Takeda, *Tokkyo No Chishiki* (Knowledge of Patents): p. 58; Yoshifuji, *Tokkyo Hou* (Patent Law): p. 54.

² This is also referred to as the objectivity of an art.

³ Mere presentation of information refers to where there is no distinctive feature in the means of presenting information, but only in the presented information. For example, it is not possible to obtain a patent for a “new record” by recording a new tune (presentation of new information) onto a phonograph record, which is an already known medium (means of presentation). If the phonograph record is a novel medium involving an inventive step, a patent can naturally be obtained for the medium itself, but as a tune is not an “art” in the sense mentioned in this context, it has no patentability though the information (tune) itself is new. However, the so-called “medium patent,” recognized in the implementation guidelines that were adopted in 1997 is a different matter. With regard to medium patents, see note 11 of “2. Utilization of a Law of Nature” of this book.

⁴ Shigeru Yoshida, “*Hatsumei No Honshitsu* (Essence of Invention),” Book Commemorating Judge Hara’s Retirement, Vol. 1: p. 73. Also, the court reasoned that “in light of the purpose of the patent

problem were indicated, the invention would be an incomplete invention and would not be treated as a statutory invention if that method could not attain the purpose.

The requirements of utilizing a law of nature and the invention being a technical idea are virtually inseparable, and should be regarded as a combined requirement for an invention.

4. Creativity

An invention must be “creation” of technical ideas. As far as it must be a “creation,” the mere finding of an already existing thing is a discovery, and not an invention. However, the difference between the two is delicate, as mentioned earlier.

system, it is reasonable to consider that the technical content must be structured concretely and objectively to the extent that a person with ordinary skill in the technical field can repeatedly work it and attain the intended technical effect; therefore an invention in which the technical content is not structured to meet the above level is incomplete, and cannot be considered to be an “invention” as mentioned in Section 2 (1) of the Law” in the Supreme Court decision on October 13, 1977, Civil Court Decisions by the Supreme Court, Vol. 31, No. 6: p. 805 (the Medicinal Product case) ([Annotation] Nobuhiro Nakayama, *Journal of the Jurisprudence Association*, The University of Tokyo, Vol. 96, No. 3: p. 372; Shigetoshi Matsumoto, *The Law Times Report*, No. 362: p. 106; Shigetoshi Matsumoto, *The Law Times Report*, No. 367: p. 93; Shigetoshi Matsumoto, *Kigyohou Kenkyuu* (Study on Business Law), No. 260: p. 32; Ryuuchirou Senmoto, *Journal on Civil and Commercial Law*, Vol. 79, No. 1: p. 111; Youtarou Nunoi, *Kigyohou Kenkyuu*, No. 240: p. 31, Tatsuki Shibuya, *Patent News*, No. 4110; Kazuhiko Takeda, *Tokkyo Kanri* (Patent Management), Vol. 25, No. 7: p. 723; Takeshi Akiyama, *Patent*, Vol. 30, No. 12: p. 16; Shouji Matsui, *Hatsumei* (Invention), Vol. 72, No. 4: p. 16; Tsuneteru Aragaki, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition) Case 4; Edited by Nakagawa/Harima, *Hanrei Kougyou Shoyuiken Hou* (Study on Court Decisions relating to Industrial Property Law) Case 2 [Hiroya Kawaguchi]).

There is also an argument over whether or not an art needs to be unprecedented and novel or uncommon to be creative, but there is no use in such argument. These requirements are examined in the novelty or inventive steps, which are patentability requirements, and there is no other way but to treat the invention claimed by the party (a so-called subjective invention) as an invention before conducting such examination. Even if an art does not seem to include anything new, objectively, it would be treated as an invention as long as it has been created¹. Such invention may not be patentable, but there is no point in arguing whether or not it falls under the general concept of an invention.

5. Advanced Art

¹ A patent application that does not include anything new is not refused for not corresponding to an “invention” as mentioned in the main paragraph of Section 29 (1) of the Patent Law, but for lacking novelty or involvement of an inventive step. JPO, *Chikujou Kaisetsu* (Clause-by-clause Explanation of Industrial Property Laws): p. 21; Watanabe, *Kougyou Shoyuken Hou* (Industrial Property Laws): p. 15; Takeda, *Tokkyo No Chishiki* (Knowledge of Patents): p. 125.

The definition of an invention in Section 2 (1) of the Patent Law includes the term “advanced.” This term is not so important for the definition of an invention, but was merely included to distinguish an invention from a device, which is the subject matter of utility models¹. The definition of a device (Section 2 (1) of the Utility Model Law) is almost the same as the definition of an invention (Section 2 (1) of the Patent Law), only lacking the term “advanced.” This means that utility models are registered even if they are lower in level than patents².

6. Incomplete Inventions

¹ JPO, *Chikujou Kaisetsu* (Clause-by-Clause Explanation of Industrial Property Laws): p. 22.

² The issue of how much difference there is between the two in actual examination is a different question.

An incomplete invention is not a statutory invention, meaning it is not an “invention” under the Patent Law. An idea that cannot constitute an invention has been called a “non-invention,¹” which is different in concept from an incomplete invention. An incomplete invention, on the other hand, is an idea that has the appearance of an invention, but lacks a concrete method to solve the problem it poses². As such an incomplete invention is often merely a casual idea and third parties cannot work it by only looking at the specification, it is usually not useful for raising the general technological standard of society³.

The concept of an incomplete invention often appears in the chemical field, in which there frequently are cases where the claim is described in a rather general manner but the working example in the specification, which is backed by experiments, is narrower in scope. Chemistry is referred to as a science of experiments, and it is often difficult to determine feasibility with a mere idea, unless it is backed by experiments.

¹ For example, a game rule or an advertising method.

² It is difficult to specifically distinguish between complete inventions and incomplete inventions, and one can only learn to make the distinction through practical experience. A court decision indicating one criterion for the determination is the Tokyo High Court decision on June 21st, 1984, Court Decision Journal, No. 1131: p. 135 (the Noxious Organism Control Agent case) ([Annotation] Yoshihiko Satou, Court Decision Journal, No. 1148: p. 204). In this decision, the court held that a description based on objective and concrete experimental data cannot be considered as an incomplete invention, even if it does not meet the desirable standard to be published as experimental data in an academic treatise on experiment and research. It goes without saying that this point is determined by the description in the specification. Also see, the Supreme Court Decision on January 28, 1969, Civil Court Decisions by the Supreme Court, Vol. 23, No. 1: p. 54 (the Atomic Energy Generator case) ([Annotation] Kunio Yano, *Housou Jihou* (Bar Journal), Vol. 26, No. 6: p. 156; Nobuo Monya, Journal of the Jurisprudence Association, The University of Tokyo, Vol. 87, No. 6: p. 758; Yoshinobu Someno, Journal on Civil and Commercial Law, Vol. 62, No. 3: p. 490; Kouzou Mimino, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition), Case 3; Koue Toyosaki, Jurist, No. 500: p. 568; Edited by Nakagawa/Harima, *Hanrei Kougyou Shoyuiken Hou* (Study on Court Decisions relating to Industrial Property Law), Case 1 [Takehiko Suzuki]), Tokyo High Court decision on July 22, 1965, Court Decisions in Administrative Cases, Vol. 16, No. 8: p. 1387 ([Annotation] Masanari Ooba, *Tokkyo Hanrei Hyakusen* (Second Edition), Case 5). For a similar opinion, see Ryuuchirou Senmoto, Journal on Civil and Commercial Law, Vol. 79, No. 1: p. 111, and for an opposing opinion, see the book commemorating the seventieth birthday of Professor Uchida [Yoshihiko Satou]: p. 153.

³ If the incomplete invention were something that was only an inch away from completion, it could be useful for raising the general technological level of society (e.g., See Supreme Court decision on January 28, 1989, supra note (2)). However, under the first-to-file system, there is a higher chance for people to file an incomplete invention in order to acquire the prior right. To eliminate such applications, and to treat only completed inventions as inventions would contribute to fair technological development competition (Takeda, *Tokkyo No Chishiki* (Knowledge of Patents): p. 76) and would comply with the purpose of the Patent Law. Further, the court stated that an invention is incomplete by its mere conception alone, and the conception of a certain technical matter must take a concrete shape, in the Tokyo High Court decision on April 27, 1976, Court Decisions in Suits against Appeal/Trial Decisions, 1976: p. 449; *Tokkyo To Kigyuu* (Patents and Enterprises), No. 90: p. 19 (the Mahjong-Rule Pachinko case).

In such case, the part of the claim that exceeds the scope of the working example or the scope that a person skilled in the art can easily work based on the working example is treated as an incomplete invention under Japanese practice⁴.

An invention in a field other than chemistry can also be incomplete. For example, in a field of inventions in which safety must be secured, an invention that does not involve a measure to avert danger is treated as an incomplete invention⁵. In addition, an invention in which the purpose cannot be attained with the technical means described in the specification is treated as an incomplete invention⁶.

An invention of a microorganism which cannot be easily obtained by a person skilled in the art is treated as an incomplete invention unless the applicant deposits the microorganism with an institution⁷ designated by the JPO Commissioner⁸. An

⁴ The court judged that unless the chemical reaction is proved and the effect is confirmed by a working example, etc., there is no other way but to treat it as an incomplete invention or insufficient disclosure, and when it is unclear which one the invention falls under, it is not erroneous to treat it as an incomplete invention in the Tokyo High Court decision on January 27, 1976, Court Decisions Relating to Intangible Property, Vol. 9, No. 1: p. 16 (the Vinyl Acetate Manufacturing Method case) ([Annotation] Shigetoshi Matsumoto, The Law Times Report, No. 367: p. 93). In addition, the court judged a manufacturing method for a starting material of a certain compound to be an incomplete invention, stating that it was not disclosed to the extent that a person skilled in the art could easily work it, in the Tokyo High Court decision on October 20, 1993, Court Decisions Relating to Intellectual Property, Vol. 25, No. 3: p. 622 (the MB-530A Derivative case).

⁵ Supreme Court decision on January 28, 1969 (*supra* note 2). The invention in question was an atomic energy generator, but the court judged it to be an incomplete invention, stating that it lacked a concrete method sufficient for averting the great danger unavoidably pertaining to atomic fission, and that the danger is a unique one that cannot be prevented by ordinary means and methods applied in ordinary power plants. This decision has been subject to controversy. On the one hand, there is an opinion that such method for averting danger can constitute a separate invention, so the invention in question should be regarded as a complete invention as it is. On the other hand, some say that unlike the relation between an engine and a brake, an invention of an atomic reactor has its significance in extracting the energy safely, so an invention lacking a concrete method of securing safety should be regarded as an incomplete invention. There is also a view that such safety issue is not an issue over the completeness of an invention, but is an issue of industrial applicability, which is a patentability requirement. Annotation on the original decision (Tokyo High Court decision on September 26, 1963, Court Decisions in Administrative Cases, Vol. 14, No. 9: p. 1532) can be found in Masanobu Shibasaki, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions), Case 8; Takeshi Akiyama, Patent, Vol. 17, No. 1: p. 71 and No. 2: p. 22. Also, though the term “incomplete invention” was not used, the court held that a socket for which safety has not been ensured is not qualified to be protected as a practical industrial device (terminology under the old Law) in a Tokyo High Court decision on May 28, 1968, The Law Times Report, No. 225: p. 198 (the Multiple-Way Plug case).

⁶ Tokyo High Court decision on November 30, 1977, Court Decisions Relating to Intangible Property, Vol. 9, No. 2: p. 738 (the Course Rope Floats case).

⁷ Specifically, the National Institute of Bioscience and Human-Technology Agency of Industrial Science and Technology is designated as the depository institution.

⁸ Deposit of the microorganism and furnishing of its samples are obligated under the Budapest Treaty. If the microorganism is deposited with an international depository authority (the National Institute of Bioscience and Human-Technology Agency of Industrial Science and Technology in

invention described in a patent specification must be easily workable from the description in the specification by a person skilled in the art, but many inventions relating to microorganisms cannot be worked without obtaining the microorganism in question. Such inventions for which follow-up attempts are difficult would be treated as incomplete inventions if they were filed only on paper, so an exception is made to the principle of documentary proceedings, so as to treat them as complete inventions by deposition of the microorganism.

An incomplete invention is rejected upon examination due to the ground that it does not correspond to an “invention” as set forth in the main paragraph of Section 29 (1) of the Patent Law⁹. However, since whether or not an invention is complete is determined solely based on the filed documents, it is sometimes difficult to distinguish an incomplete invention from insufficient disclosure (Section 36 (4) of Patent Law) in reality. In theory, it would be contradictory to refuse something that is not complete as an invention based on the ground of insufficient disclosure, but as long as it is difficult to distinguish between the two from the documents, it would not be illegal to refuse it in either way¹⁰. If these two types have to be clearly distinguished by first determining

Japan is designated as an international depositary authority), it is recognized by the Contracting States as satisfying the procedure for making a deposit in one’s own country’s depository.

⁹ This had been the long-established practice, but confusion occurred in that practice, when the court mentioned that “no provisions in the entire Patent Law are considered to stipulate matters on the completion or incompleteness of an invention claimed in a patent application, and no provisions are found to stipulate that a patent application can be refused based on the ground that the invention is incomplete,” and held that an incomplete invention cannot be refused based on the ground that it does not correspond to an “invention” as set forth in the main paragraph of Section 29 (1) of the Patent Law in the Tokyo High Court decision on September 18, 1974, Court Decisions Relating to Intangible Property, Vol. 6, No. 2: p. 281 (the Medicinal Product case) ([Annotation] Shigetoshi Matsumoto, *Kigyohou Kenkyuu* (Study on Business Law), No. 260: p. 32; Kazuhiko Takeda, *Tokkyo Kanri* (Patent Management), Vol. 25, No. 7: p. 723; Takeshi Akiyama, Patent, Vol. 30, No. 12: p. 16; Shouji Matsui, *Hatsumei* (Invention), Vol. 72, No. 4: p. 16; Youtarou Nunoi, *Kigyohou Kenkyuu*, No. 240: p. 31; Tatsuki Shibuya, Patent News, No. 4110). This court decision was reversed in the last instance, so the conventional practice regained force (Supreme Court decision on October 13, 1977, Civil Decisions by the Supreme Court, Vol. 31, No. 6: p. 805, [Annotation] Nobuhiro Nakayama, Journal of the Jurisprudence Association, The University of Tokyo, Vol. 96, No. 3: p. 372; Shigetoshi Matsumoto, The Law Times Report, No. 362: p. 106; Tsuneteru Aragaki, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions) (Second Edition) Case 4; Edited by Nakagawa/Harima, *Hanrei Kougyou Shoyuiken Hou* (Study on Court Decisions relating to Industrial Property Law) Case 2 [Hiroya Kawaguchi]; the book commemorating the seventieth birthday of Professor Uchida [Kouichi Mizuta]: p. 3; Ryuuchirou Senmoto, Journal on Civil and Commercial Law, Vol. 79, No. 1: p. 111).

¹⁰ A non-invention that cannot in any way constitute a statutory invention is rejected based on the main paragraph of Section 29 (1) of the Patent Law. It is basically the same regarding an incomplete invention, but it should not be considered as illegal even if it were refused for violation of Section 36 (4). The consequence is the same either way, but there is also an opinion that finds a difference in the possibility for amendment between the two (Annotation by Shigetoshi Matsumoto and Hiroya Kawaguchi in *supra* note 9). Nevertheless, whichever provision should be applied, the

the completeness of the invention and then judging the sufficiency of disclosure, the examiner would have to conduct a substantive investigation free from the filed documents, but that is practically impossible.

act of adding to something that is not concretely backed up in the specification by making later amendment should be interpreted as addition of a new matter, which is not permissible (it would have fallen under a change of gist before the 1993 amendment of the Law). The court confirmed that, in the case where an invention is incomplete, there is no room for remedying the defect by making amendment, unlike in the case of a deficiency in the description, in a Tokyo High Court decision on June 3, 1993, Court Decision Journal, No. 1493: p. 126 (the Rotor Fixator case). (As a conclusion, the trial decision that the invention was incomplete was reversed in that case.) In applying either provision, however, the making of an amendment by deleting from the claim the part of the specification that is not concretely backed up should be allowed. As a matter of course, such amendment may not be enough to obtain a patent for a non-invention, and an incomplete invention may remain as incomplete even after such deletion. Regarding this point, some people make the criticism that it is not proper to recognize what was an incomplete invention at the time of filing as a complete invention by amendment. However, some inventions may have been judged as incomplete at the time of filing only due to the largeness of their scope and could have been judged as complete at the time if the scope of the invention had been more limited (especially in the chemical field). At the same time, there are many people who criticize the idea of not distinguishing between incomplete inventions and insufficient disclosures (Annotation by Tatsuki Shibuya, Kazuhiko Takeda and Shigetoshi Matsumoto in *supra* note 9). Incidentally, although the following are court cases under the old Law, the court ruled that even if an invention was complete subjectively, it would be unpatentable as being an incomplete invention, if the disclosure was insufficient in the Tokyo High Court decision on May 29, 1962, Court Decisions in Suits Against Appeal/Trial Decisions 1962: p. 225 (the Frequency Wave Filter case) ([Annotation] Masanobu Shibasaki, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions), Case 21) and in the Tokyo High Court decision on July 22, 1965, Court Decisions in Administrative Cases, Vol. 16, No. 8: p. 1387 (the Unique Colloid Manufacturing Method case) ([Annotation] Masashige Ooba, *Tokkyo Hanrei Hyakusen* (Second Edition), Case 5).

Item 2 Types of Inventions (Categories of Inventions)

Inventions can roughly be divided into product inventions and process inventions, and process inventions are further divided into inventions of processes of manufacturing products and other process inventions. Product inventions and process inventions not only differ in the expressions of the claims, but also in the legal effects of the patent rights owing to such difference (Sections 2 (3), 37 (iii) and (iv), 101, 104, 175 (2) (ii) and (iii) of the Patent Law).

Product inventions are technical ideas materialized into the form of products, which involve no chronological elements. On the other hand, process inventions are inventions involving chronological elements, which are “constituted of several sequential acts or phenomena aimed toward a certain purpose.¹” Since the type of invention affects the legal force of the patent, the type is not determined merely from how the claims are described by the applicant, but from the substance of the invention, in principle². However, in reality, it is often difficult to draw a clear line between product inventions and process inventions. Particularly in the case of use inventions, no strict distinctions are made between these two types of inventions.

Also, when determining senior and junior applications, two inventions can be considered to be the same as long as the technical ideas are the same, even if one was a process invention and the other was a product invention according to the claim descriptions³.

The categories of inventions are limited to the above three types under the current Law, but that will not necessarily remain the same in the future. For instance, if computer software products come to be traded not in the form of physical media (products), but on-line, it would be necessary to consider the need for a new invention category.

¹ Tokyo High Court decision on May 21, 1957, Court Decisions in Administrative Cases, Vol. 8, No. 8: p. 1463 (the Radiation Shielding Method case) ([Annotation] Tomohira Taniguchi, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions), Case 3; Shouji Kamon, *Tokkyo Hanrei Hyakusen* (Second Edition), Case 9).

² Tokyo High Court decision on April 14, 1959, Court Decisions in Administrative Cases, Vol. 10, No. 4: p. 774 (the Gas Cutting Burner case) ([Annotation] Kousaku Yoshifuji, *Tokkyo Hanrei Hyakusen* (100 Selected Patent-related Court Decisions), Case 4).

³ Tokyo High Court decision on October 5, 1977, The Law Times Report, No. 364: p. 278 (the OF Cable Manufacturing Method case) ([Annotation] Hidefumi Kuroda, *Tokkyo Kanri* (Patent Management), Vol. 30, No. 8: p. 867). Regarding this issue, see also Masami Shimamune, “*Mono To Houhou* (Product and Process),” Book Commemorating Judge Hara’s Retirement, Vol. 1: p. 127.