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THE PROTECTION IN JAPAN OF INVENTIONS BY EMPLOYEES DURING COURSE OF THEIR EMPLOYMENT

BUNZO TAKINO* AND WARD M. FRENCH**

Nowadays when collaboration between Japan and United States is at a high level of development, it would be worthwhile to consider employee inventions and their protection in Japan. In all industrially advanced countries, inventions and the devices or the processes they produce are highly important to business, and the efficient administration of patents is a present day mark of good business management. Thus, the efficient handling of problems related to employee inventions is of utmost importance to both management and labor.

It is customary for companies to seek in their own name patents covering inventions of their employees. Employees possessing initiative and originality seek and develop practical applications of scientific principles to the production processes within a company. The resulting inventions and the continuing and increasing demand for new developments resulting from the high technical level of modern production recommend to wise management that it build and maintain an employee force of the highest stability and experience.

The subject of inventions of employees has been involved with fair labor standards in much the same way that the subject of wage and hours has been treated under contemporary labor laws. Legislation on the subject of employee inventions seeks to protect the full time employee inventor by distinguishing him from laborers whose physical rather than intellectual job product is the subject of the labor contract with the employer.

A West German statute, *Das Gesetz für Arbeitnehmererfindung*, is the most significant piece of legislation expressive of the above viewpoint for the protection of employee inventors. In most instances the subject of employee inventions is dealt with in terms of legal principles, emanating from the areas of both patent and labor law, with the former playing the dominant role in the development of applicable principles. The West German law may be called epoch making in the sense that it clearly recognizes that the regulation of employee inventions is a

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part of the labor law, and not merely to be disposed of under laws governing patents and other industrial property.¹

The West German law has served as a model for a number of countries which have revised their laws in the area of employee inventions. This problem is causing growing concern in Japan, and in 1959, at the time of the revision of the statutes governing industrial properties, it was regarded as highly important. The resulting revisions were small, continuing to deal with the problem in terms of patent law. However, this revised law is expressive of the present Japanese view on the subject of protection of employee inventors.

This article will explain the principles involved in article 35 of the Patent Law of Japan, as revised in 1959, dealing with employee inventions in Japan. The history of the revisions which have produced the present article will be discussed, then an interpretation of article 35 will be made, and finally an analysis and criticism of this article through a comparison with foreign laws will be provided.

HISTORICAL BACKGROUND—PROTECTIONS OF EMPLOYEE INVENTIONS

The Meiji Government, ending the feudal system of the Tokugawa Shogunate which had lasted for 300 years, declared its policies to be the "development of industries, the increase of production," and the "enrichment of country and strengthening of military power." The Summary Regulation for Monopoly (*sembai ryaku-kisoku*) was issued as early as 1871, for the purpose of stimulating original ideas and creative talents, and later in 1909 in order to respond to the rapid development of industries following the Russo-Japanese War, the Government revised the then four statutes relating to industrial properties and for the first time introduced a provision for the protection of employee inventions.²

This provision stipulated that inventions made by virtue of the

¹ Under the law, the creative activities of the worker are clearly protected and the rights of the employer are limited. The law is not limited to patentable inventions and application procedures but also covers technical improvements and compensation therefor. The law also covers a wide variety of subjects such as the holding of the patent, requirement for assignment of the patent, the measure of compensation, and duties of the employee (assignment, notice, and holding invention confidential).

² The provision was contained in the 1909 amendment to the Patent Law (*Tokkyohō*) art. 3 (Law No. 36, 1899). The first provision covering employee inventions in the fields of industrial properties, prior to the 42nd year of Meiji (1909), was made in the Ornamental Design Law (*Ishōhō*) of the 32nd year of Meiji, art. 5 (1899): "the right of application for registration of the ornamental design which is contrived at another's trust or with the expense of an employer belongs to the trust of the employer unless there exists contrary stipulation in a contract." Enatsu, *The Employer Invention System and its Practice*, 59 HATSUMEI (Invention) 21 (1962).

occupational position of an employee or a person under contract, unless otherwise provided, would be acquired by the manager or the employer, and that as to the inventions other than those developed by virtue of the occupational position of an employee or a person under contract, a promise of assignment in anticipation would be null and void.³ It should be noted that the law declared the principle that inventions developed by virtue of the occupational position of employees would be automatically acquired by the employer as an original owner. This law as a whole had many loopholes in its application, and a revised patent law was promulgated in 1921. The revised law contained a provision for the protection of the employee inventor⁴ that followed the principles of the present patent law. The legal attempt to vest the employer with the Right of Non-exclusive License (*tsūjō jissshiken*) of the patent covering service inventions was established at this time. During the deliberations concerning the proposed bill in the Imperial Diet, the House of Commons passed the bill with a provision that the invention of an employee should not be licensed to the employer without due compensation but, as a result of opposition in the House of Peers, the law was passed as originally proposed by the Government.⁵

On January 10, 1957, the report of the Law Revision Committee for Industrial Property (*Kōgyō Shoyūkenseido Kaisai Shingikai*) was submitted to the Government. This report was the final product of the Committee which had been established in 1950 to examine the probable future requirements for revision of the law of industrial property in order to cope with the rapid technical development following World War II. This report expressly stated that "the problem of inventions developed by virtue of the occupational position of employees received the most heated discussions in the Committee."

The Law Revision Committee proposed revision of the law covering inventions by employees as follows:

1. The Scope of Assignment in Anticipation:

The scope in which the promise of assignment in anticipation is allowable with respect to inventions by employees should be limited to

³ Patent Law (*Tokkyohō*) art. 3 (Law No. 36, 1899), as amended in 1909: "The right to obtain a patent for the invention made during the course of official or contractual duty shall be acquired by the person in charge of its management or the employer unless otherwise provided in the regulation for service duty or in the term of contract."

⁴ Patent Law (*Tokkyohō*) art. 14 (Law No. 96, 1921).

⁵ KIYOSE, PRINCIPLES OF PATENT LAW 65 (1922).

the extent that such invention is deemed to be within the scope of business of the employer, and to the extent that it should be carried out by virtue of occupational position or occupational experience.

2. Compensation of the Employee Inventor :

(a) When the employer acquires by the promise of the employee, before completion of the invention, the right to apply for a patent or the assignment of the patent right, the employee has the right to demand from the employer a reasonable amount of compensation. This also applies to the case wherein the assignment is made by contract entered into by the employer and the employee after the invention has been completed.

(b) The profit obtainable by the employer from the invention shall be taken into account when fixing the amount of compensation of the employee.

(c) In measuring the amount of compensation, the employer shall accept the measure proposed by the employee should the employee demand be based on the actual profit obtainable in the future by the employer in use of the invention or in sub-licensing it to any other person, or by assignment of the right to apply for patent or assignment of the patent to any other person.

Despite heated discussions, the Committee followed the basic principles of the old patent law of 1921, particular revisions being: (a) to clarify the requirements for employee inventions, and (b) to clarify the measure for employee compensation. The Committee discussed the question of whether or not to recognize inventions of juridical persons, and it finally rejected such recognition on the ground that it admitted a conclusion opposite to the purpose of protection of employee inventions. The Committee also heard proposals that the concept of employee inventions should be abolished, left to agreement between the parties, or covered by the provisions of the labor law rather than the patent law. These views were not adopted by the Committee because it was felt that the protection of the employee inventors would be better achieved through the present law. The point that the labor law would be better able to provide various measures for the protection of employee inventor was also considered. Concerning the argument that the legal right of non-exclusive license of the employer should be made compensatory, it was concluded that the old law could provide better harmony to balance the demands on both sides. The proposal that a special organ for arbitration should be instituted was rejected on the grounds that providing such an organ solely for arbitrating the disputes arising out of the employee invention would not be of much benefit.

THE SCOPE AND DEFINITION OF ARTICLE 35 OF THE PATENT LAW OF JAPAN

The legal basis for the protection of employee inventors in Japan is provided in article 35 of the Patent Law promulgated in 1959 (called "the new Patent Law" as compared with the patent law promulgated in 1921). As has been seen, in the process of the revision of the old patent law, the protection of employee inventors was one of the important and much discussed matters in the Law Revision Committee of 1950. However the report of the Committee submitted to the Government in 1956 stated that revision should be as minimal as possible without seriously changing the fundamental principles of the old patent law. As a result the new Patent Law maintains largely the principles involved in the Committee's report.⁶

Thus, the new Patent Law does not aim at solving positively and thoroughly the important and complex problems related to inventions of employees, and it provides only minimum regulation with regard to the acquisition of patent rights and the validity of contracts in connection with these rights. The revised provisions of the new Patent Law are limited to the acquisition of title to service inventions, as a special type of patent right, and to contracts in connection with service inventions. When viewed from the point of a fair adjustment in the relationship between the employer and employee, the provisions of the new Patent Law actually cover only a very small portion of the overall regulatory field. In the wider area of regulatory action can be seen the necessity for establishing a special organ for arbitration dealing with the rights and duties of the employer with regard to the inventions and devices within an enterprise and, more particularly, with the duty of the employee to report inventions to the employer and to keep them confidential. If not only patentable inventions, but also proposals for improvements within an enterprise, are included as part of the problem, the scope of the new Patent Law of Japan is exceeded.

However, the new Patent Law may be justified on the ground that it attempts to maintain the principles of the old patent law during the present stage of technical development in Japan. The protection afforded to employee inventions has been clarified, and provision has been made for more definite requirements for such inventions. It is

⁶ HANABUSA, COMMENTARY ON THE NEW INDUSTRIAL PROPERTY LAWS 65 (1960); ODA, COMMENTARY ON THE NEW PATENT LAW 220 (1961); TAKINO, LECTURES ON THE NEW INDUSTRIAL PROPERTY LAWS 38 (1962).

also to be expected that the invention of an employee will be accorded more favorable treatment through the setting of standards for measuring compensation. The result should be an improvement in the amount of compensation in cases of acquisition by the employer of a patent right of an invention developed by an employee, out of the scope of his service, but within the scope of the business of the enterprise.

The provisions of article 35 of the new Patent Law of Japan [hereafter referred to as article 35] are as follows:

1. Any employer, juridical person, or national or local public organization (hereafter referred to as "employer") shall have a right to a non-exclusive license on the patent of an invention developed by an employee, officer of a juridical person, or personnel of national or local government (hereafter referred to as "employee") if the nature of the invention is within the scope of the employer's business and if the acts leading to such invention (hereafter referred to as "service invention") are within the past or present duty owed by the employee to the employer, and the employer shall have this right even though the right of filing an application for the patent has been assigned and the patent obtained.

2. As to inventions developed by the employee except in the case of service inventions, contracts in anticipation, or regulations governing the duty of employees and all other terms which stipulate in advance the assignment to the employer of his right of obtaining the patent, patent right, or the creation of the right of exclusive license on the said patent to the employer shall be null and void.

3. The employees shall have the right to demand a reasonable amount of compensation when the employers have, by contract or by regulations governing the duty of the employee or otherwise, obtained from the employees the right to apply for a patent of the invention of the employee or the patent right thereof or the right of exclusive license on the patent.

4. The amount of compensation shall be determined by taking the amount of profit receivable by the employers through the utilization of the invention and the degree of contribution of the employer in the development of the invention into consideration.

Article 35 is based on the principle that the invention developed by the employee initially belongs to the employee in just the same way as was provided in article 14 of the old Patent Law. The Invention of the Employee (*shiyōnin hatsumei*) may be classified as a service Invention (*shokumu hatsumei*) or as a so-called Free Invention (*jiyū hatsumei*). The inventive capacity of juridical persons was discussed during the revision of the old patent law, but the theory was not adopted.

While the service invention initially belongs to the employee,⁷ the Right of Non-exclusive License (*Tsūjō jisshiken*) is by the operation of law [article 35 (1)] given to the employer. Furthermore, Assignments in Anticipation (*yōyaku shōkei*) are allowable only as to service inventions under article 35(2). The concept of "employee" here includes employees of private enterprises and of public corporations and even the manager thereof, a concept not recognized by the German Law.

As to compensation, the employer, by virtue of article 35(3), owes a duty to pay a reasonable amount of compensation for the patent right acquired whether based on the assignment in anticipation or the right of exclusive license in anticipation of the patent. In the determination of reasonable compensation, article 35(4) requires that due consideration be given to the amount of profit likely to be derived from the invention and received by the employer and the degree of contribution made by the employer to the development of the invention. As to the right of non-exclusive license of the service invention acquired by the employer, there need be no compensation paid to the employee inventor.

Service Inventions. The provisions covering the requirements for and effect of the service invention are similar to the principles of the shop right under the U.S. law.

For inventions developed by the employee, the requirements for constituting a service invention are: (a) the invention must be within the scope of the business (*gyōmu han-i*) of the employer (*shiyōsha*) and (b) the act (*kōi*) of the employee (*jūgyōsha*) in achieving the invention must be a part of his service (*shokumu*), past (*kako*) or present (*genzai*), to the employer. An attempt will be made to elucidate each of the following concepts: "the employer," "the employee," "the scope of business," "the act in achieving the invention," "past or present," and "service."

The word "the employer," as used in article 35, means the owner of an enterprise and includes all individual employers, juridical persons, and national or local public organizations. The term "the employee" is synonymous with the employee working under the service contract of the *Civil Code*, and his employer can take the form of a natural person, a private juridical person, or a public

⁷ KANEKO & SOMENO, INDUSTRIAL PROPERTY LAWS 110 (1960).

juridical person. It should be noted here that there is no uniform usage of the expression "the employer" among the several statutes, and one should be careful in ascertaining the meaning of "the employer." For instance, in article 10 of the Labor Standards Law (*Rōdō kijunhō*) (Law No. 49, 1947), "employer" is defined as the managing officer of the enterprise with all other persons performing acts for the employer defined as "general workers." This concept is not equivalent to "employer" in the sense of article 35.

The "employee" includes general workers, officers of juridical persons, and employees of the national and local governments. The word in this provision should be construed in just the same way as "employee" is in the *Civil Code*.⁸

To constitute a service invention, it must be an invention the technology of which is within the scope of the business of the employer. With regard to the scope of business, two different interpretations have been propounded. One is that the scope of business should be determined by the Formal Objects of the Enterprise (*jūgyō mokuteki*) as defined in the articles of incorporation of the particular juridical person;⁹ the other interpretation is that it should be determined by the actual basis of the business performed by the employer inclusive of tentative attempts to extend the business.¹⁰

Service inventions must necessarily be "inventions developed through the performance of the duty of the employee," for this is

⁸ PATENT BUREAU, COMMENTARY ON THE NEW INDUSTRIAL PROPERTY LAWS 74; HANABUSA, *op. cit. supra* note 6. In the *Civil Code* the officers of juridical persons include the directors in article 52, the provisional director in article 56, the supervisor in article 58. In the *Commercial Code* the officers of juridical persons include directors of corporations in article 254, the auditors of corporations in article 275, the unlimited partner in limited partnerships in article 151, and the director of limited corporations in article 25 of the Limited Company Law (*Yūgengashahō*) (Law No. 74, 1938), and the auditor in article 33 thereof. There are two cases regarding employee inventions. In one case, plaintiff's father made a novel device that was an improvement of the oven for production of lime nitrogen, the production being the business of defendant company. At this time he was not only the managing director but also the technical supervisor general in the company. In 1954, he filed an application for registration of a utility model on this novel device. The application was registered in August 1955. The Tokyo District Court held: "Plaintiff's father engaged in the improvement of the oven as the chief executive of the technical department pursuant to managing policy of defendant company. The resulting act for the development of the said device shall be deemed as within his official duty." Tokyo Dist. Ct., No. 38 (*ne*) 2043, July 30, 1963.

⁹ HANABUSA, *op. cit. supra* note 6, at 66.

¹⁰ For example, the invention of a weaving machine in the textile industry is said to be outside the scope of business, as is the invention of a method of testing the quality of soap in the factory of soap manufacture, and the invention of a container for liquid soap in said factory is also outside the scope of business, though these interpretations are very doubtful. In the textile industry, the invention of a power receiving device by an employee in charge of power receiving equipment is said to be outside the scope of business.

the essential element of the service invention in the proper sense of the term. While under article 14 of the old Patent Law, service inventions were "those wherein the act of invention is part of the duty of the employee, the officer of a juridical person or the employee of government," under article 35 the scope of service invention is further clarified as "action leading to inventions whether performed in the past or present employee's service to the employer."

"Action leading to development of an invention as part of the service of the employee" includes not only the instance of an invention within the scope of the duty of the employee, but also instances where the act of the employee is expected as part of his speculative duty of renovation and improvement, as in the case of employees who are employed to supply simple physical labor.¹¹ The provision that "acts leading to an invention" shall be deemed to be included within "service duty" anticipates the possibility that an invention has been conceived in free hours as in many cases where an invention may be realized through an inspiration.

The new Patent Law provides that "the official duty" must be within "the past or present duty of the employees under the employment of the employers." "Under the employment of the employers" refers to inventions developed by employees during their term of employment. This phrase necessitated the addition of "the past or present duty" in the clause. This means that when an employee is under the employment of an employer, the act of developing an invention either in the present or in the past is included in his duty regardless of his being transferred from one position to another in the enterprise.¹² For instance, an invention developed by the chief of accountants, who had been the factory manager of the enterprise previously, is still a service invention if it would be classified as a service invention in his previous position. Inventions are not developed by direction but are developed by chance. The time of completion of an invention cannot be anticipated, and yet, in most cases, they are based on the experience in a particular enterprise. On the other hand, an invention by a person who has retired from an enterprise is not deemed to be a service invention even though it is based on the experience in that particular enterprise.¹³ This, at best, is very unreasonable

¹¹ PATENT BUREAU, REP. OF LAW REVISION COMMITTEE FOR INDUSTRIAL PROPERTY 20 (1957); PATENT BUREAU *op. cit. supra* note 8, at 73.

¹² *Id.* at 74.

¹³ ODA, *op. cit. supra* note 6, at 212.

because the time of completion of an invention cannot be foretold and is known only to the inventor. Some measure should be provided in order to prevent an inventor from deliberately avoiding service invention responsibilities.¹⁴

The service invention provided for in article 35 is only one type of invention which may be developed by an employee. With respect to other inventions, some specific legal effects are set forth. As an example, the employer is entitled to enter into a contract of assignment in anticipation with the employee inventor, and when the employer cannot acquire the patent right or the right of exclusive license under the patent, the employer is then given a non-exclusive right of license under the patent. Accordingly, it is held null and void when an employer enters into an agreement with, or binds by office regulations, an employee to assign his contingent rights to obtain a patent, the right of patent, or the exclusive license to an invention other than a service invention.

The right of non-exclusive license to a service invention is conferred on the employer by rule of law, and this right is effective without registration of the assignment.¹⁵ In case the patentee demands trial for a modification,¹⁶ or should the patentee release the patent, or the licensee abandon the license,¹⁷ it is necessary to obtain the consent of the person who has the right of non-exclusive license of the service invention.¹⁸ In all other cases, the transfer of an existing right is allowed only (similar to other rights of a non-exclusive license) when the transfer accompanies a transfer of the enterprise by which the license is exercised, when the consent of the patentee has been obtained, or when the transfer is made by inheritance or other general rule of succession.¹⁹

Problem of the Title to Employee Inventions. The touchstone of the problem of employee inventions is the question of who should acquire title to the invention. On this point there exists the usual and longstanding differences of opinion as to whether title belongs in the inventor or the applicant. If importance is to be attached to the act of publication of the invention by the applicant, it follows that the right of invention should be given to the publisher. However, from

¹⁴ KANEKO & SOMENO, *op. cit. supra* note 7, at 11.

¹⁵ Patent Law (*Tokkyohō*) art. 99(2) (Law No. 121, 1959), in 6 EHS No. 6850A [hereafter cited Pat. L. Japan].

¹⁶ *Id.* at art. 127.

¹⁷ *Id.* at art. 97.

¹⁸ ODA, *op. cit. supra* note 6, at 345.

¹⁹ Pat. L. Japan, art. 94 (1).

the point of view that the right of invention belongs, as a matter of natural right, to the person who has brought about the invention, the applicant should be the person who has acquired his title from the inventor. The past tendency in various countries has been to put stress on the basic right of the inventor to his invention.

The new Patent Law of Japan, similarly, denies the initial right of acquisition by the employer, recognizing only the right of non-exclusive license in the employer if the invention satisfies the requirements of law. This principle of satisfaction of the requirements of law can be clearly seen in articles 35(1) and 35(3).

One of the basic arguments for the idea that the employer should initially acquire the right of invention is based on the principle, found in the *Civil Code* and assumed by the labor law, that the fruit of the labor of workers under employment belongs to the employer.²⁰ Another approach is that an invention within the scope of a business is a result of experience with the techniques and the materials utilized in the enterprise and that to try to separate the enterprise and the invention is an attempt to separate unseparables. In answer to these two arguments, it can be said that the work product obtained under the contract of employment or under the labor relationship should be the average work product of general workers, not the fruit of a distinct and special work product such as an invention, *i.e.*, the origination of technical ideas is the product of special mental effort and is unsuitable for reward in terms of wages or salary. The concept that the right of invention is transferred to the employer prior to the invention's completion because the personality of the laborer is subordinated to the employer can be considered as an infringement of the fundamental right of human integrity provided for by the Japanese Constitution. Thus, in Japan the theory of initial acquisition by the employer can be easily denied.

However, it does not follow that the ideal protection of employee inventors is attained by a mere denial of the legal concept of initial acquisition by the employer. Proper legal safeguards are also necessary. On the other hand, because the protection of employee inventors may be safeguarded by proper provisions in the patent law, even under a legal system wherein the theory of initial acquisition is adopted, it is unnecessary to place too much emphasis on the theory of the initial acquisition by the employer.²¹

²⁰ ODA, *op. cit.* *supra* note 6, at 213.

²¹ Italian Patent Law, arts. 23-26 (1939).

Contracts for Employee Inventions. The right to an employee invention, in general, belongs basically to the natural inventor. Consequently, after completion of the invention, the transfer of the right to apply for the patent or the transfer of the patent right to a third person should be made by an act of assignment. This is true in the case where an employee has developed an invention within the scope of the business of the employer. Here it is a fundamental principle that the employer gets an assignment from his employee inventor.

In order to avoid an over-advantageous position for the employee, the principle of "assignment in anticipation" was introduced for service inventions, but in those cases where an assignment in anticipation is not made, the law grants a non-exclusive license to the employer who is unable to acquire the patent right by assignment.

Because the nature of an assignment in anticipation is (in law) a kind of pre-contract provided for in the *Civil Code of Japan*, article 556, the transfer of the right is not effective unless the independent contract for the transfer is newly entered into between the parties concerned following the completion of the invention. Counter arguments may be raised, but it is probably safer to conclude that the transfer of the right should be carried out by an independent contract in order to effect an absolute transfer as long as the terms in a former promise did not create prior absolute transfer.²² Consequently, if the right has been transferred to a third party prior to the conclusion of the independent contract, the employer has only the right to damages.

The preliminary promise of assignment may be made either by way of contract between the parties, as part of the employment contract or by an insertion in the regulations governing the duty of employees. However, in a case where the inventor applied for a patent on a service invention without the existence of a clear assignment in anticipation, the court recognized the employer's right to dissolve the employee's service contract.²³ It is both desirable and convenient that such promises, whether related to service inventions or inventions by employees, be uniformly handled.

If a contract is contrary to the provisions of law, it is null and void.²⁴

²² ODA, *op. cit. supra*, note 6, at 224.

²³ *Tsutsui v. Ohira Seishi K.K.*, HANREI JIHŌ (No. 192) 31 (1959) (Tokyo Dist. Ct., 19 Civil Dept., July 14, 1959).

²⁴ JAPANESE CIVIL CODE, arts. 90-92 (1962). Regulations for service duty in one company simply read, "when the employee has developed any invention or device within the scope of the business of the corporation." This kind of regulation should be construed as effective only to the extent of an invention developed during the course of the duties of the employee and within the scope of business of the corpora-

This is especially true when the contract of assignment is broader than the scope of the service invention as defined in article 35. It is not certain whether such a contract as a whole is nullified or whether the contract will be effective to the extent of the service invention. However, terms of an extremely inclusive or abstract nature will make the contract null and void in its entirety.

Compensation. In accordance with article 35, the employer can acquire the patent right or an exclusive license of the service invention, either by assignment in anticipation or by contract after the completion of the invention. In either case the employee acquires the right to demand payment of a reasonable amount of compensation by virtue of article 35(3). As to inventions other than service inventions, the assignment thereof can be carried out by way of an independent contract between the employer and employee. However, as to the service invention, if the employee does not agree to assign his invention to the employer or has assigned the patent right or has granted exclusive license of his invention to a third party, the employer is entitled to non-exclusive license of the patent. Since this non-exclusive license is granted by operation of law to the employer, the employee is not allowed to demand compensation for it.

The measure of compensation is lawful if the calculation thereof is properly made between the parties. Article 35(4) sets forth a standard for calculating the amount of compensation. It provides that both the amount of profit which may be derived or received by the employer from the utilization of the invention and the extent of contribution made to the employee by the employer in the course of development of the invention shall be taken into consideration. In determining the extent of contribution made by the employer, the expenses for research and the materials are to be included.²⁵

The amount of profit may vary depending upon whether it is based on the amount of profit calculated after considering the specific con-

tion. There are other regulations for service duty providing that: "if the invention is in its nature within the scope of the business of the corporation, and if the act resulting in the invention belongs to the present or past duty of the employee..." or providing that the corporation shall be notified of inventions within the scope of the business of the employee and that service inventions among them shall be assigned to the corporation. It should be noted particularly in the last alternative, the duty of making a report is extended to inventions within the whole scope of business of the corporation.

²⁵ The SWISS CODE DES OBLIGATIONS tit. 10, § 343 (Swiss 1911), provides as follows: "An invention which an employee makes in the course of his service activity belongs to the employer if the inventive activity is within the duty of the employee or, in any event, if the employer has reserved such a claim in the service contract."

dition of the employer or whether it is based on a reasonable estimate of the value of the invention. The latter should be the proper method because the employer, as owner of the enterprise, will receive profit as a result of his monopoly of the invention. Article 35(3) says that the employer shall pay compensation for the employee invention. This means that the payment must not be a sort of bonus. If the invention is the fruit of labor based on the contract of employment, the compensation might properly be reduced to wages or salary. However, compensation for the invention must be a special compensation under the policies of the Patent Law and by the nature of the contract of employment. Though the amount contributed by the employer for the development of the invention may be deducted from the amount of compensation, the compensation should be based on the value of the invention itself. Accordingly, the compensation should be determined on the basis of the amount which would be paid for a free invention or as royalty for a license.²⁶

ANALYSIS AND CRITICISM OF ARTICLE 35

In spite of the fact that article 35 is a highly effective provision, adopted only after protracted deliberations, it earns certain demerits for its regulation of the protection problem as can be seen by contrasting it to the legislative and other legal measures existing in foreign countries. The Japanese law attempts to approach the problem within the scope of the patent law or of the law of industrial property. By contrast, there are several countries which go further to protect general technical improvements made by employees in enterprises. Still other countries, though limiting the area of protection to the scope of their patent laws, try to protect employees by dealing separately with each type of employee invention. Then there are the legal institutions such as those found in Anglo-Saxon countries in which the purpose of the law is to provide for settlement only if a dispute arises between the parties. Finally, in nations like West Germany and the Scandinavian countries statutes relating to employee inventions may set up a legal institution to settle disputes between the employer and the employee inventor from the standpoint of the national need to encourage inventions.

²⁶ *Netherlands*, Patent Act § 10, para. 1 (1910), provides as follows in the English translation: "The right to obtain a patent shall be acquired by the employer, if the person who develops the invention as to the method of manufacture or the improvement thereof, performs his official duty to exercise his special knowledge and skill in behalf of the other person."

Definition of Service Invention. Article 35 takes up, as the field for regulation, only the service invention defined by strict requirements. Countries which also have the concept of the service invention as a sole ground for regulation are Switzerland, Holland, the United Kingdom,²⁷ and the United States.²⁸ Yet in these countries no attempt is made to set up the further requirement concerning the scope of business of the employer in the service invention. Definition of service invention is limited to an invention which has been developed during the term of employment or an invention which has been developed in the performance of the official duty of the employee. The view taken by the Japanese Patent Law might properly be a prerequisite for the employer's right of non-exclusive license, but to limit the scope of the assignment in anticipation to the narrow requirement of business scope is repugnant to the fundamental principle of the freedom of contract.²⁹ This indicates that to define the service invention by a single criterion is improper. On the other hand, there are countries which define the service invention by two, and even three or more criteria. In summary, multi-criteria countries³⁰ either parallel their approach to the service invention with their approach to the invention within the scope of business, or the approach to the service invention is subdivided into many classes.³¹

²⁷ The English law, which is the accumulation of many judicial precedents, cannot be included precisely in this category. In England the principle that an invention made by an employee belongs to the employer is based on the theory that employees making useful and patentable inventions are trustees for the master and are working in trust for him. *Barrington Products (Leicester) Ltd. v. King* [1958] R. Pat. Cas. 212 (1958); *Barnet Instruments, Ltd. v. Overton*, 66 R. Pat. Cas. 315 (1949); *British Cakabesem Ltd. v. Moncrieff*, 65 R. Pat. Cas. 165 (1948); *Triplex Safety Glass Co., Ltd. v. Scolah*, 55 R. Pat. Cas. 21 (1937); *Adamson v. Kenworthy*, 49 R. Pat. Cas. 57 (1931); *Mellor v. William Bearmore & Co., Ltd.*, 43 R. Pat. Cas. 361 (1926-7), and 44 R. Pat. Cas. 175; *British Reinforced Concrete Engineering Co., Ltd. v. Lind*, 34 R. Pat. Cas. 101 (1917); *Edisonia, Ltd. v. Forse*, 25 R. Pat. Cas. 546 (1908); Cf. *Worthington Pumping Engine Co. v. Moore*, 20 R. Pat. Cas. 41 (1902).

²⁸ SILVA COSTA, *THE LAW OF INVENTING IN EMPLOYMENT* 13 (1953). The principle called shop rights was developed.

²⁹ Anglo-Saxon laws recognize freedom of contract as broadly as possible. Austrian laws treat the contract as the most important factor. Though the West German Law is mandatory, still it is flexible as well.

³⁰ Those countries which define the service invention by two criteria are *West Germany*, Law of Invention of Employees, art. 4, para. 2 (1957); *Italy*, Patent Law, arts. 23-24 (1939); *Portugal*, Patent Law, art. 9 (1940); *Denmark*, Law Concerning Inventions of Employees, art. 5 (1955); and *Finland*, Patent Law, art. 24; and those countries which define the service invention by three or more categories are *Sweden*, Law Concerning Inventions of Employees, art. 3 (five categories), *Austria*, Patent Law, art. 56, para. 3 (1925), and *Canada*, Public Servants Inventions Act 3-4 Eliz., ch. 40.

³¹ Among these, the provision of article 5 (b) of the Patent Law of Austria (1925) most closely resembles the provision in article 35 of the Patent Law of Japan. However, it further subdivides the service invention within the scope of business into 3 different concepts: (a) the service invention in a narrow sense (*Dienstleistung in*

The Problem of Acquisition of Patent Rights. As noted above, the problem of the employee invention has its root in the most difficult question presented: whether the employee invention initially belongs to the employee inventor or whether it belongs to the employer? In most countries, including Japan, the basic principle is that the invention belongs to the employee as its originator. However, in the Latin and Anglo-Saxon countries, the ownership of the invention is based on the theory of initial acquisition by the employer. In France, the Cour de Cassation, in a precedent-making case, adopted the theory of common ownership rather than rely too heavily upon the facts regarding the enterprise urged upon it by the parties.³² The patent laws of some countries³³ contain a provision re-opening the initial acquisition of the service invention by the employer. In the United Kingdom, the old judicial precedents that uphold the initial acquisition of the employer are *prima facie* applicable unless stipulated otherwise by the contract between the parties.³⁴ Also, in the United States a contract has priority, but the service invention should initially be ascribed to the employee inventor, and in the absence of a contract only the shop right is allowed to the employer.³⁵

Even in those countries where initial acquisition of the service invention by the employer is recognized, better protection can be offered to employee inventors by a manipulation of the legal framework than in countries adopting the principle of acquisition by the employee inventors.³⁶

Contract as to Employee Inventions. Article 35, in providing for

engerem Sinne), (b) the service invention stimulated by the occupational circumstances (*Anregungserfindung*), and (c) the service invention through experience (*Erfahrungserfindung*). These are much broader than the provisions in the Patent Law of Japan. The scope of the service invention in the Patent Law of Japan is equivalent to (a).

³² Cour de Cassation, 1er decembre 1938, ann. 59,21; 29 novembre 1948, ann. 50,31.

³³ They are *Switzerland*, CODE DES OBLIGATIONS tit. 10 § 343 (1911); *Italy*, Patent Law, art. 23 (1939); and *Portugal*, Patent Law, art. 5 (1940).

³⁴ *Bloxam v. Klose*, 1 C. & P. 558 (Nisi Prius 1825). Recently, *British Celanese v. Moncrieff*, 65 R. Pat. Cas. 165 (1948); *Triplex v. Scoria*, 55 R. Pat. Cas. 21, at 29 (1938).

³⁵ *Barnet Instrument v. Overton*, 66 R. Pat. Cas. 315 (1949). SILVA COSTA, *op. cit. supra* note 28; Itô, *On the Patents of Employees in American Law*, 67 HÔGAKU KYÔKAI ZASSHI ("The Journal of the Jurisprudence Association") 79 (1949); Oda, *Treatment of Inventions of Employees in the United States*, 53 HATSUMEI (Invention) 4 (1953).

³⁶ Italy is a good example of this sort. In Italy, employee inventors are allowed to demand from the employer the payment of an adequate amount of compensation for the service invention, and when the employer does not comply with the demand, the invention belongs to the employee inventor. It should be noted that there is naturally some opposition to the principle of initial acquisition by the employer *per se* even in these countries.

the protection of employee inventors, defines the measure of the amount of compensation for the employee invention and states that the employer must pay to the employee inventor an adequate amount of compensation, not only in those cases where a contract of assignment in anticipation exists, but in all cases of service inventions. The situation is quite different for those types of inventions in which there is no applicable legal provision and the contract of assignment in anticipation is prohibited. However, a contract of assignment in anticipation will be valid so long as each provision of the agreement is reasonably certain to arise, and as long as the invention pertains to the scope of business of the employer.³⁷

When the employer receives a report that an invention has been completed, the employer is free to decide whether or not he will acquire rights to the invention and exercise license over it. Accordingly, it is then necessary to take the legal step of imposing the duty of report and delivery of the invention upon the employee, the duty of report upon the employer when he does not want to acquire the right to the invention, and the duty of compensation on the part of the employer when no license is exercised on the part of the employer over the patent. The law of West Germany covering employee inventions admirably provides for these points.

In the United Kingdom and the United States, the validity of contracts covering employee inventions is recognized to a great extent as long as the contract is not against the public policy and "mores" of the day. Any contract broad enough to require that all inventions developed by an employee, from the time of execution of the contract to the death of the employee, will be assigned to the employer would be void as against public policy. However, an agreement that provides that all inventions in the course of employment will be assigned to the employer has been held valid.³⁸ But it has been pointed out that it is desirable that such an assignment of an invention be limited to an invention within the scope of business of the employer.³⁹ However, a

³⁷ Starting from the theory of assignment of employee inventions to the employer, the duty of delivery to the employer of the service invention is imposed on the employee, and the employer is entitled to demand from the employee inventor the delivery of the invention and to exercise exclusive rights to the invention. At this point it differs from the provision of article 35 of the Patent Law of Japan. Acquisition of non-exclusive rights to the invention, which to some extent is equivalent to the non-exclusive license in article 35 of the Patent Law of Japan, is allowed to the employer in the West German Law so long as the invention is within the scope of the business of the employer.

³⁸ *Guth v. Minnesota Mining & Mfg. Co.*, 73 P.2d 385 (7th Cir. 1934).

³⁹ *WHITE, PATENTS FOR INVENTIONS* 160 (2d ed. 1955).

provision for special compensation based on the reasonable value of an invention will not be legally enforceable due to a lack of consideration. Consideration is covered by wages or salary and by a raise in wages or salary or privilege given to an employee.⁴⁰

Organ for Arbitration. The problem of measuring the amount of compensation to be paid for the employee invention is difficult. As we have seen, a solution may be possible by setting reasonable standards for measuring the amount of compensation by law but, parallel to that, the establishment and operation of a means for arbitration and settling the contesting interests of the employee inventor and the employer should be a key point for good administration of the principles of employee invention. At present no such vehicle for arbitration exists in Japan and the only governmental body available for the settlement of disputes between the employee and the employer is an ordinary court of justice.⁴¹ This is both time consuming and costly.

In many countries disputes arising out of employee inventions are settled by special methods.⁴² Several countries have an expert committee in the patent bureau empowered to decide the dispute.⁴³ There are other countries where a court of arbitration or a committee for arbitration can be convened from time to time.⁴⁴ One legal system provides for arbitration by a committee within the enterprise. Each of these institutions has its advantages and disadvantages. In Japan, in view of the fact that it was actually proposed by a law revision commission, the probable institution to be adopted in the future will be a special committee within the Patent Bureau.

CONTEMPORARY PRACTICES IN JAPAN FOR PROTECTION OF INVENTIONS BY EMPLOYEES

In Japan, unlike those jurisdictions where the laws are carried out in accordance with the mandates of judicial precedents, the actual practice of protection of employee inventors does not always coincide with the provisions and objects of the law. In order to see how employee inventors in government and public utilities are protected

⁴⁰ SILVA COSTA, *op. cit. supra* note 30 at 92.

⁴¹ As well as in the United States, Switzerland, France, Belgium, Denmark, and Finland.

⁴² In Austria, the labor tribunal has jurisdiction over such disputes.

⁴³ See *e.g.*, *West Germany*, Law of Invention of Employees, art. 9, ch. 5 (1957); *Netherlands*, Patent Act § 10, para. 2 (1910).

⁴⁴ See *e.g.*, *Sweden*, Law Concerning Inventions of Employees, art. 1 (c); *Italy*, Patent Law, art. 25 (1939); *Portugal*, Patent Law, art. 5 (1940).

in accordance with the provisions of the law, and how matters left to be unregulated under legal provisions are disposed of by the interested parties in practice, it is necessary to examine the practices of government establishments and enterprises. Yet the law should be in harmony with actual circumstances, or it will be a mere formality. The principles for protecting employee inventions are new in Japan, and it must be remembered that the materials for inquiry into the practice of the protection are difficult to obtain.

Article 35 of the Patent Law and Regulations for Service Inventions. Article 35 regulates service duty as to the service invention and as a mandatory provision imposes many restrictions as fundamental law. First, the regulation of official duty within an enterprise provides for the treatment of the employee invention only insofar as the service invention is provided for in article 35 (1). Second, since the employee has the right to demand from the employer an adequate amount of compensation for the assignment of his patent right or an exclusive license to the employer (article 35(3)), the provision for the amount of compensation must be fixed in detail in the regulation for official duty. An examination of types of regulations which are being provided for in practice with respect to these two points follows.

Clause "Definition of Service Invention" (SHOKUMU HATSUMEI). If the regulation for service duty defines and interprets the requirements for the service invention under article 35, it is quite valid. Sometimes the definition of employees is clarified in the regulation, as for instance, "temporary employees," "temporary technical employees," "the officers and advisors of the corporation." Further the scope of business is also clarified in a certain regulation by the statement that "the scope of business of the corporation is the scope of business as defined in the articles of incorporation." As has been stated before, the service invention definition in article 35 not only covers the requirement for exercising the non-exclusive license by the employer who has no express contract with the employee inventor, but also defines the extent to which a contract of assignment can be made in anticipation. The purpose of such a mandatory provision is to protect the employee who supposedly has a weaker bargaining position. Without the mandatory law it would become general practice for an employer to issue regulations as advantageous as possible for himself.

Article 35 is very useful if the circumstances involved in the motive

for issuance of the regulation are given cognizance. However, with the ever-increasing importance of inventions in enterprises, the position of inventors has been improved, and it is advisable that all necessary arrangements be made by a contract whereby the assignment in anticipation becomes legally effective in accordance with the demands of the fundamental principles of the freedom of contract. It is also advisable no attempt be made to make a regulation for service duty which is defective with respect to the amount of compensation and, as to the requirements for assignment of invention, legally effective. The development and management of inventions within an enterprise should be based on mutual confidence in the human relationship.

Adequate Amount of Compensation. There are some regulations for service duty with provisions to the effect that a proper amount of compensation for inventions will be paid. Some service duty regulations provide that only a particular body shall measure the amount of compensation. However, unless there is a provision that a definite percentage of the profit received by the employer will be paid to the employee inventor periodically, it can be presumed that an adequate amount of compensation will not be paid to the employee inventor. Of course it would be possible to pay a lump sum. But in such a case the amount of compensation must be equal to the amount of the purchase price of such an invention, irrespective of its success or failure; that is, the amount obtained by dividing the total amount to be paid as royalty by the number of acquired patent rights or a certain percentage of the estimated amount of profit anticipated by the employer through licensing the patent right.

The principal methods of payment of an amount of compensation (including more bonuses) for the service invention can be classified into Registration Compensation (*tōroku hoshōkin*) and Royalty (*jissai hoshokin*). In the royalty there are two methods of calculation. One is to pay a certain percentage (on a sliding scale) of the amount of profit received by the assignee of the invention. The other is by grading.

The above is best demonstrated by a few examples. In 1952 an instruction for payment of compensation for service inventions of National Government employees was issued. This was in turn revised in 1961. According to the instruction, the amount of registration compensation per case can be no more than ¥3,000. The amount of royalty per case is 30% of the profit received by the National Govern-

ment per year if that profit is less than ¥300,000, 20% of the amount exceeding ¥300,000, 10% of the amount exceeding ¥500,000, and 5% of the amount exceeding one million yen. If the profit of the National Government is ¥850,000 per year on one patent right, the amount of compensation will be ¥165,000, and the calculation thereof in units of ¥1,000 is as follows: $300 + 200 + 350 = 850$ profit per year; $300 \times 30/100 + 200 \times 20/100 + 350 \times 10/100 = 165$, the amount of compensation per year. However, the amount of compensation per year of an employee of the National Government is limited to ¥500,000.

Regulations for the compensation of inventions and devices in the Research Institute of Atomic Energy of Japan (effective in April, 1961) are models for the service duty regulations relating to inventions. Of particular significance is the fact that the amount of compensation is higher than in other regulated areas. The following itemized amounts of compensation are in the regulation.

Application bonus (article 15)

per patent:	¥3,000
per device:	¥2,000

Application compensation (article 16)

cost of filing per application: amount of actual cost.

Registration compensation (article 17)

per patent:	¥20,000
per device:	¥15,000

Royalty (article 18)

profit less than ¥100,000:	30%
profit between ¥100,000 - ¥300,000:	28%
profit " ¥300,000 - ¥500,000:	25%
profit " ¥500,000 - ¥1 million:	20%
profit " ¥1 million - ¥5 million:	15%
profit " ¥5 million - ¥10 million:	10%
profit above ¥10 million:	5%

Example of calculation (all in ¥1,000 unit) in the case of a profit of 850:

$$100 + 200 + 200 + 350 = 850$$

$$100 \times 30/100 + 200 \times 28/100 + 200 \times 25/100 +$$

$$350 \times 20/100 = 30 + 56 + 50 + 70 = 206$$

Amount of compensation: ¥206,000 per year

In regard to private corporations, statistics show the amount of registration compensation to range from a low of ¥2,000 to a high of 210,000. In an investigation conducted by the Patent Bureau in 1956

concerning compensation for service inventions in large enterprises, 123 inquiries were made with 102 responses. It was found that there were 29 corporations paying royalties (25 by grading system, 4 by sliding scale system). In the grading system the basis of payment was quite rough. The sliding scale system was more accurate, and the actual amount of compensation was classified into: (a) 0.1 - 0.5% of the amount of gross sales (for 3 years after the beginning of the actual practice of the invention); (b) not more than 10% of the profit derived by an invention having a successful result; (c) 3 - 5% of the profit derived (annually); and (d) 5% of appraised profit (payable at the end of each fiscal term).

CONCLUSION

The writers believe that the theory and practice of the protection of employee inventors in Japan have been, to a certain extent, clarified. Initially, as to the problem of whether an invention developed by an employee should belong to the employer or to the employee inventor, the conclusion is reached that some kind of right should be given to the employer. There is then the problem of the nature and extent of the invention that is the dominant factor in conferring the right to acquisition of title, or the right of license under the patent, to the employer. The non-exclusive license by operation of law under article 35(1) is shown as a possible answer adopted by the Japanese law.

Attention should also be given to whether or not such a provision is to be mandatory, and to the question of relative priorities between the principle involved in the provision and a contractual transaction. Article 35(2) appears as a restriction on the freedom of contract, finding its justification only through a recognition of the weaker position of the employee inventor.

The effectiveness of provisions relating to the employee invention also depends on the establishment of the principle of compensation. In this respect the Patent Law of Japan provides for compensation and gives some basis therefor, but article 35(3) and (4) cannot be said to be yet sufficient. However, no matter how concretely and precisely the provision may be defined, it would be worthless unless it meets the practice of private as well as public enterprises. Consequently, the development and establishment of the principle of compensation for the employee invention depend upon practical experience according to the actual conditions of enterprises in Japan, as well as on the regu-

lations for compensation for inventions of government employees. The regulations of some efficacious laboratories probably will be followed as good examples by other private enterprises if they are proper and reasonable. Also it has been stated that it is preferable to have a specific means for arbitration of disputes between the employer and the employee inventor concerning compensation for employee inventions.