

12 A Comparative Study of United States and Japanese Laws on Collaborative Inventions, and the Impact of those Laws on Technology Transfers

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This research examines United States and Japanese laws regarding patent rights in collaborative inventions, and inquires whether these laws may impede technology transfers by creating uncertainty regarding the ownership, validity, or enforceability of the resulting patents, or by imposing undue obstacles to the licensing or assignment of such patents. Where the laws of the two countries differ, this paper compares the merits of each approach and also assesses whether the differing approaches could be troublesome for cross-border transactions.

One of the most significant differences between United States and Japanese law regarding joint inventions is in the requirement of consent for certain activities involving a jointly owned patent. In Japan, unlike the United States, all joint owners of a patent must consent to a non-exclusive license of the patent, or to the transfer of a single joint owner's share, while in the United States, unlike Japan, a jointly owned patent cannot be enforced through an infringement action without the consent of all joint owners. Thus, while the consent requirements differ in the two countries, in each case they can present obstacles to the full enjoyment of a joint owner's share of the patent.

In both countries, the definition of joint inventorship is imprecise, and even honest mistakes in identifying which persons qualify as joint inventors can lead to invalidation. In the United States, such errors can often be corrected without invalidating the patent, but in Japan, no such correction mechanism exists.

Finally, in light of recent Japanese court decisions on the subject of remuneration for employee inventions, employer allocations of remuneration in the future will need to carefully identify and quantify the respective contributions of all joint inventors. Such precision is generally not required in the United States.

I Introduction

When a patentable invention arises from collaborative research, who has the legal right to obtain a patent for that invention? If several parties jointly own the right to obtain the patent, or share ownership of the patent itself, what are their respective rights with respect to exploiting or enforcing the patent? Do the current legal rules facilitate or impede the exploitation and transfer of patented technology?

These issues have received considerable attention in the United States, where identifying joint inventors can be essential to determining patent priority. In Japan, issues of joint inventorship and joint patent ownership have generally received less scrutiny. However, such questions have begun to receive greater attention in Japan, due in part to aggressive judicial interpretation of the rules governing compensation for employee inventions, and in part to the emergence of universities as joint owners of patents arising from collaborations with the private sector.

In both countries, important legal issues pertaining to joint inventorship and joint patent ownership include (1) defining joint inventorship; (2) the legal rights of joint inventors; (3) the ownership rights of joint inventors who contribute to fewer than all of the claims; (4) the consequences of errors in identifying joint inventors; and (5) the impact of joint inventorship issues on employee inventions.

This article examines the law of joint inventorship and joint patent ownership in both the United States and Japan, and considers how these laws may promote or impede the exploitation of patented technology.^(*)

II Defining Joint Inventorship

1 United States

In the United States, an inventor is the individual who "conceives" an invention. "Conception" means the "formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is

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hereafter to be applied in practice.”^{(*)2} An idea is sufficiently “definite and permanent” when “only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.”^{(*)3}

In order for a conception to lead to a patentable invention, the conception must be “reduced to practice,” which requires that someone “actually perform or carry out the conceived invention.”^{(*)4} Although reduction to practice is essential to patentability,^{(*)5} a person whose sole contribution to the invention was to reduce it to practice is not considered an inventor.^{(*)6}

For an invention to be joint, it must be “the product of the collaboration of the inventive endeavors of two or more persons working together toward the same end and producing an invention by their aggregate efforts.”^{(*)7} They need not work together physically or at the same time, they need not make the same amount or type of contribution, and they need not each contribute to the subject matter of every claim.^{(*)8}

To qualify as a joint inventor, a person must contribute to the conception of the invention, not merely its reduction to practice.^{(*)9} To contribute to the conception, it is not enough to suggest the general idea of the result to be accomplished rather than the means to accomplish it.^{(*)10} Thus, an employer or entrepreneur’s general request

that someone create a product to accomplish a task is not a joint inventorship contribution to that product.^{(*)11}

Ambiguity often arises when a person with specialized skills or knowledge assists the person who came up with the detailed conception of the invention. It is recognized that “an inventor ‘may use the services, ideas and aid of others in the process of perfecting his invention without losing his right to a patent.’”^{(*)12} However, it can often be difficult to determine whether a person who contributes such expertise has contributed to the conception itself, or has merely exercised the ordinary level of skill in the art.^{(*)13}

2 Japan

In Japan, the concept of inventorship and the standards for determining which collaborative contributions qualify as joint inventorship are generally similar to those in the United States, and equally challenging to apply.

Determining who qualifies as a joint inventor can be extremely difficult. It is clear, however, that a joint inventor must participate in the creation of the technical idea(s) of the invention,^{(*)14} and that it is not sufficient to be a mere assistant, advisor, or fundraiser, or to be the one who merely orders the work to be accomplished.^{(*)15}

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- (*)2 Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 (Fed. Cir. 1986) (quoting 1 Robinson on Patents 532 (1890)), *cert. denied*, 480 U.S. 947 (1987).
- (*)3 Burroughs Wellcome Co. v. Barr Laboratories, Inc., 40 F.3d 1223, 1228 (Fed. Cir. 1994), *cert. denied*, 516 U.S. 1070 (1996).
- (*)4 Oregon Health & Sci. Univ. v. Vertex Pharmaceuticals, Inc., 233 F. Supp.2d 1282, 1289 (D.Or. 2002).
- (*)5 Under U.S. law, a reduction to practice may be either *actual* (building the invention, making the composition of matter, or using the process) or *constructive* (providing an enabling description in the patent application). Thus, it is not necessary to actually build or use the invention in a tangible sense in order to obtain the patent.
- (*)6 See, e.g., Applegate v. Scherer, 332 F.2d 571 (CCPA 1964); 35 U.S.C. § 102(f).
- (*)7 Monsanto Co. v. Kamp, 269 F. Supp. 818, 824 (D.D.C. 1967); see also *Burroughs Wellcome*, 40 F.3d at 1227 (“A joint invention is the product of a collaboration between two or more persons working together to solve the problem addressed.”); *Kimberly-Clark Corp. v. Proctor & Gamble Distrib. Co.*, 973 F.2d 911, 915-16 (Fed. Cir. 1992).
- (*)8 35 U.S.C. § 116. Although joint inventors need not physically work together, they must “collaborate” in the sense of communicating with one another during the conception process, and must knowingly working toward the same goal. *Monsanto*, 269 F. Supp. at 824; *Kimberly-Clark*, 973 F.2d at 916.
- (*)9 *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 923 (1998); *Huang v. Calif. Inst. of Tech.*, 72 USPQ2d 1161 (Feb. 18, 2004) (citing *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998)). Sometimes the attempt to reduce an invention to practice reveals that the conception is in fact incomplete. *Burroughs Wellcome*, 40 F.3d at 1229. Under these circumstances, one who participates in completing the conception through experimentation or similar activities may make a sufficient contribution to qualify as a joint inventor. This is frequently true of chemical inventions. See *Board of Ed. ex rel Board of Trustees of Florida State University v. American Bioscience, Inc.*, 333 F.3d 1330, 1341-42 (Fed. Cir. 2003).
- (*)10 *Garrett Corp. v. United States*, 422 F.2d 874 (Ct. Cl. 1970), *cert. denied*, 400 U.S. 951 (1970).
- (*)11 *Hayhurst v. Rosen*, 1992 U.S. Dist. LEXIS 7312, *28, 1992 WL 123178, at *11 (citing *Morgan v. Hirsch*, 728 F.2d 1449, 1452 (Fed. Cir. 1984)).
- (*)12 *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985) (quoting *Hobbs v. United States Atomic Energy Comm’n*, 451 F.2d 849, 864 (5th Cir. 1971)).
- (*)13 See, e.g., *Ethicon*, 135 F.3d at 1468-69 (Newman, J., dissenting); *American Bioscience*, 333 F.3d at 1341-42.
- (*)14 *Modalities for Employees’ Inventions System*, IIP Bulletin, vol. 12, page 20 (2003) (citing Nakayama, *Kogyo Shoyuken Hou (Jo) Tokkyo Hou* (Indus. Prop. Law -- Book I, Patent Law), Part II, Ch. 1, Sec. 1, Subsec. 1, Item 1.2 (expanded 2d ed., Koubundu 2000) (translated at <http://www.iip.jp.or/translation>); Yoshifuji & Kumagai, *Tokkyo Hou Gaisetsu* (Overview of Patent Law) 187-88 (revised & enlarged 13th ed., Yuhikaku 1998)).
- (*)15 Nakayama, *supra* note 14, Part II, Ch. 1, Sec. 1, Subsec. 1, Item 1.2.

Professors Yoshifuji and Kumagai distinguish joint inventors from other collaborators by noting that a joint inventor must provide “substantial cooperation” rather than “insubstantial cooperation” in “the creation of technical ideas.”⁽¹⁶⁾ This standard would generally exclude an assistant who merely followed instructions,⁽¹⁷⁾ a supervisor or customer who provided the general theme for the work without providing a concrete conception,⁽¹⁸⁾ and a person who merely funded the research.⁽¹⁹⁾ If one person provides a concrete but incomplete idea, and another person completes the idea through the act of materializing it into a working device, they are joint inventors.⁽²⁰⁾ However, one who merely produces manufacturing drawings depicting another person’s complete conception of an invention is not a joint inventor.⁽²¹⁾

There is a strong consensus that joint inventors need not make equal contributions to an invention in order to be joint owners of the right to obtain the patent. It is somewhat less clear under current law whether their ownership of the right to obtain the patent should reflect the inventors’ proportionate contributions, or should be deemed to be equal. It would seem that the most practical approach, however, is to treat the joint inventors as equal owners unless they specify otherwise by contract.

III The individual rights of joint inventors

Unlike the general standards for determining joint inventorship, the laws regarding the rights of individual joint inventors and joint patent owners are quite different in Japan and the United States.

1 United States

In the United States, a patent application is filed by the inventors, not their assignees. Although the law generally requires that joint

inventors make their patent application jointly, a subgroup of the joint inventors may file the patent application if the omitted inventors either have refused to join in the application “or cannot be found or reached after diligent effort.”⁽²²⁾ In such a case, the joint inventors who file the application must do so on behalf of all of the inventors.

Each joint owner of a patent is free to work the patent, with no duty to share the proceeds with the other joint owner(s).⁽²³⁾ One joint owner may unilaterally execute a non-exclusive license, with no duty to share the royalties,⁽²⁴⁾ or may unilaterally assign his or her individual share of the patent.⁽²⁵⁾ These rules encourage maximum exploitation of the patent by each joint owner. However, the consent of all joint owners is required to execute an assignment or an exclusive license of the patent.⁽²⁶⁾ Any of these rules may be altered by contract.

Absent an agreement to the contrary, the consent of all joint owners is also required in order to initiate an infringement action. In *Ethicon v. United States Surgical*,⁽²⁷⁾ an alleged infringer succeeded in blocking an infringement suit by proving that the patent applicant inadvertently failed to name a joint inventor (who had made small contributions to only two out of 55 claims), and by persuading the omitted inventor to refuse to cooperate in the suit. Although the patent was still valid (because such inventorship errors are correctible under U.S. law), the patent was unenforceable against the infringer. Thus, the combined effect of (1) treating all joint inventors as equal owners of the patent, and (2) requiring unanimous consent to an infringement action, could undermine the enforceability, and thus the marketability, of any patent as to which a joint inventor might have been inadvertently omitted.

2 Japan

In Japan, all joint inventors must consent to any assignment of a joint inventor’s share of the

(16) Yoshifuji & Kumagai, *supra* note 14, at 187-89.

(17) *Id.*

(18) Tokyo High Court, Judgment by the 6th Civil Division, Dec. 24, 1991, Hanrei Jiho, No. 1417: p. 108 (the Automatically-Boiled Shrimp case) ([Annotation] Katsua Tamai, Jurist [Jurisuto], No. 1050: p. 180); Tokyo High Court Decision of August 15, 1985, S 59 (Gyou-Ke) No. 58.

(19) Yoshifuji & Kumagai, *supra* note 14, at 187-89.

(20) Tokyo High Court Decision of April 27, 1976, Torikeshishu (Court Decisions in Suits against Appeal/Trial Decisions) 1976, S47 (“Gyou Ke”) 25, p. 449 (the Mahjong-Rule Pachinko case) (translation supplied by the Institute of Intellectual Property (IIP), Tokyo).

(21) Tokyo District Court Decision of April 16, 1979, The Law Times Report [Hanrei Taimuzu], No. 395: p. 155 (the Grain Processing Method case).

(22) 35 U.S.C. § 116.

(23) *Ethicon*, 135 F.3d at 1468; 35 U.S.C. § 262.

(24) *Ethicon*, 135 F.3d at 1468.

(25) See generally *Continental American Corp. v. Barton*, 1991 U.S.App. LEXIS 8505 (Fed. Cir. 1991).

(26) *Id.*

(27) *Ethicon*, 135 F.3d at 1465-69; *Willingham v. Lawton*, 555 F.2d 1340, 1344 (6th Cir. 1977).

right to obtain a patent, and all joint owners of the right to obtain the patent (whether inventors or their assignees) must consent to the application; if even one joint owner fails to consent, the patent cannot issue, or will be subject to invalidation.^(*28)

An employer seeking a patent for an employee invention must be careful, therefore, to determine whether any person(s) other than its own employee(s) (who typically have assigned their rights to the employer) might qualify as joint inventors. Where two or more companies engage in joint research, for example, the contributions of each company's employees would need to be carefully documented in order to determine which (one or more) of the companies owns the right to obtain the patent. The same consideration would apply to a collaboration between a company and a university.

In Japan, the restrictions imposed by Section 73 on technology transfer involving jointly owned patents are a source of concern among many joint patent owners. According to that provision, one joint owner of a patent "may neither transfer his share nor establish a pledge upon it without the consent of all the other joint owners." Although each may work the patented invention without the consent of the others, unanimous consent is required in order to license the patent, either exclusively or non-exclusively.

The purpose of the joinder requirements for licensing and for assignments and pledges of individual ownership shares is apparently to protect weaker companies from the risk that another joint owner of their patent might license it, or assign a share, to a stronger competitor of the weak company. However, in some cases one joint owner is not in a position to work the patent which it jointly owns. This joint owner (which might be another company or a university) can derive little benefit from its share of the patent unless it assigns or licenses its share, which it will be unable to do without the other joint owner's consent. If the party that cannot work the patent has sufficient bargaining power, it may be able to negotiate with the other party for consent to a license or for a share of the profits derived from working the patent. An alternative that would protect universities and weaker companies that lack such bargaining power would be to eliminate the consent requirement, at least for non-exclusive licenses. Although one joint owner might license the patent to a powerful competitor of the other joint owner, this option

would be equally available to both joint owners.

Section 73 may also impede the borrowing ability of a joint patent owner, by interfering with the owner's ability to pledge a patent share as collateral, and by interfering with the involuntary disposition of the patent share in bankruptcy. At the very least, the law in this area should be clarified. Preferably, the law should facilitate borrowing so that small companies that jointly own patents can raise the capital they need to more effectively exploit those patents, and to fund further research. One possible way to accomplish this would be to give the other joint patent owners the right to buy back an encumbered patent share at some objectively-determined price, but only in the event of bankruptcy or default on the collateralized loan.

Although Japan has no statutes or case law precisely on point, most experts agree that one joint patent owner can bring suit against an infringer, and obtain injunctive relief, without the consent of the other owners. This view gains support from the Japan Supreme Court's Judgment of March 25, 2002,^(*29) holding that a single joint patent owner could unilaterally initiate a proceeding to revoke a Japanese Patent Office (JPO) decision invalidating the patent's registration. Although the Court did not indicate whether its conclusion would also apply to other types of unilateral legal actions by a joint inventor – such as an action against an infringer -- its decision supports the broad principle that each individual joint owner should have the power to protect the patent against extinguishment. This is the opposite of the U.S. approach, as exemplified in *Ethicon*, which makes jointly owned patents more difficult to enforce than patents with sole owners.

The same principle should permit a single joint owner to pursue an action for damages arising from infringement. The problem here lies in determining the amount of damages. Many experts believe that such plaintiffs should recover only their allocable share of the total damages that would have been awarded if all of the joint owners had joined in the suit – in other words, damages should be proportionate to a plaintiff's share of the patent. This approach offers the advantage of simplicity, and mirrors Article 117 of Japanese copyright law. As Professor Nakayama has noted, however, this approach is not without its own complexities, such as the question of how

(*28) Section 38 provides that "[w]here the right to obtain a patent is owned jointly, the patent may only be applied for jointly by all the joint owners." Failure of any owner to consent to the application is grounds for rejecting the application under Section 49(ii) or invalidating the patent under Section 123(1)(ii).

(*29) Minshu Vol. 56, No. 3, at page 574. (Case number 2001 (Gyo-hi) No. 154). The court's reasoning in this case closely paralleled its reasoning just one month earlier in a trademark case presenting the same issue. See Japan Supreme Court Judgment of February 2, 2002, Minshu Vol. 56, No. 2, at 348 (Case number 2001 (Gyo-hi) No. 142).

to calculate a damages award for a plaintiff who owns only a small percentage of the patent but is in fact working the patent more extensively than the other owners, or perhaps is the only one who is actually working the patent.^(*30) In light of these complexities, it is not surprising that Professor Monya questions the wisdom of the Article 117 approach, since it could lead to inconsistent rulings for different plaintiffs based on the same acts of alleged infringement; instead, he suggests, the nonconsenting owners should be joined in the lawsuit as involuntary defendants.

IV Where a patent contains multiple claims, does it matter whether a joint inventor contributed to more than one claim?

1 United States

According to *Ethicon*, the joint inventor of one claim is a joint owner of all claims combined in the same patent.^(*31) Therefore, the joint inventor of even a single claim in a patent, or that inventor's assignee, has the power to block assignments or exclusive licenses of the entire patent, to bar infringement litigation, and to grant non-exclusive licenses of the entire patent. Under current law, it is unclear whether joint patent owners can contract with one another regarding ownership of specific *claims*.

2 Japan

Although Japanese law has not directly addressed the question, most experts believe that, in the absence of a contract among all of the joint inventors, each would be presumed to own an equal share in the right to patent the joint invention.

A somewhat different question pertains to the ownership of the patent itself. Under current law, it is unclear whether a joint inventor (or the assignee of the joint inventor) who contributed to fewer than all of the claims in the patent would be a joint owner of all the other claims as well, or even whether a contract allocating patent ownership on a claim-by-claim basis could be enforced.^(*32) This question could be important where one or more claims of a joint patent are

subsequently invalidated. If one of the joint owners was the inventor (or assignee of the inventor) of the invalidated claims, but not of the still-valid claims, should that party still be treated as a joint owner of the entire patent?

Finally, employers attempting to comply with Section 35's requirement of "reasonable remuneration" for employee inventions will want some clarification of the rules pertaining to an employee's remuneration rights where the employee contributed to only some of the claims. Should the remuneration depend on the amount of profit derived from exploiting only those particular claims, or the entire patent? What if those particular claims are not exploited at all, but revenue is generated by other claims of the patent? Similarly, if those claims were rejected by the JPO, or are subsequently held to be invalid, is that employee still entitled to remuneration based on profits derived from other claims in the same patent?

V Consequences of Errors in Identifying Joint Inventors

1 United States

Regardless of whether the inventors have already assigned their rights, a valid U.S. patent must precisely identify the true inventor(s) of the claimed invention. A patent application may be rejected, and a patent may be invalidated, for either overinclusiveness or underinclusiveness in identifying joint inventors.^(*33)

Where the inventorship error is not due to deceptive intent, rejection or invalidation can generally be avoided by invoking one of two corrections mechanisms -- section 116 (applicable during the application process) or section 256 (applicable after the patent issues). However, priority of inventorship could still be lost, potentially invalidating the U.S. patent, if the patent's priority date is based on the activities of a party who is later determined to have been improperly included in the inventorship group.^(*34)

2 Japan

Although a Japanese patent application must name the true inventors, failure to do so is not

(*30) See Nakayama, *supra* note 14, Part II, Sec. 6, Subsec. 2, nn.5 & 6.

(*31) 135 F.3d at 1465-66.

(*32) Under Section 27 of the Japan Patent Office Regulations, joint inventors or joint patentees who wish to resolve their respective ownership rights by contractual agreement may do so, provided that they provide notice and documentation to the Patent Office. However, it is not clear whether a claim-by-claim division of rights could be effected through this mechanism.

(*33) 35 U.S.C. §§ 102(f), 111(a)(1).

(*34) This is because the United States bases priority on the date of invention rather than the date of filing. See, e.g., *Kimberly-Clark*, 973 F.2d at 916.

grounds for invalidation.^(*35) However, under Section 38, if any joint owner of the right to obtain the patent failed to consent to the filing of the application, the application should be rejected under Section 49(ii), or the patent, once issued, will be invalidated under Section 123(1)(ii).^(*36) In contrast to the liberal rules allowing correction of inventorship errors in the United States, Japanese law does not permit post-registration correction of a failure to obtain this unanimous consent.

Because patent applicants in Japan are typically not the actual inventors, but their assignees, uncertainties about inventorship can be reduced by making sure that all *possible* joint inventors have assigned their rights to the patent applicants. This is ordinarily the case where the joint inventors are all employed by the same company, but it would require special attention where the invention arose from collaborations among several companies, or between a company and university personnel (faculty or students). In such a case, a competitor could take advantage of an underinclusiveness error in order to invalidate the patent.^(*37)

Because Japanese patent law does not distinguish deliberate misrepresentations from inadvertent errors in this context, even an honest mistake as to inventorship, or as to the validity of an assignment agreement, could lead to invalidation. This result seems unjust with respect to the excluded inventor as well as any other joint inventors or assignees who acted without fraudulent intent, since the invalidation will extinguish their patent rights.

Recognizing the harshness of this result, in 2001 the Japan Supreme Court carved out an apparent exception where one of the applicants had forged an assignment from a joint inventor. The aggrieved joint inventor initiated a legal action to correct the application. However, before that legal action could be resolved, the patent examination was completed, and the patent was registered, with the forger's name in place of the true joint inventor's.^(*38) Concluding that invalidation would be unfair to the true inventors in this case, the Supreme Court ordered the transfer of the forger's share to the true joint

inventor. It is not clear, however, whether the Court would have reached the same conclusion if the error had been inadvertent rather than deliberate, or if the defrauded inventor had initiated his action after the patent had already been registered.

A better solution would be to amend the patent statutes to allow for corrections where the error in obtaining consent arises from honest misjudgments about joint inventorship. This would protect the reliance interests of all of the parties who share ownership of the right to obtain the patent, as well as the subsequent assignees or licensees of the defective patent.

VI How do joint inventorship issues affect rights in employee inventions?

1 United States

U.S. law does not require employers to compensate employees for their inventions; thus, employers are not constrained by the federal definition of joint inventorship in determining whether and how to reward employees for their inventions. The existence and amount of compensation for employee inventions is dictated by market forces, due to the mobility of the American workforce. Where a company does provide such compensation, it does not necessarily reflect the relative significance of each employee's contribution.

2 Japan

In Japan, errors in identifying the inventorship group can have a serious impact on the question of reasonable remuneration under Section 35. If non-inventors (such as supervisors or executives) are included in the compensation pool, the allocation to the true inventors would almost certainly be deemed unreasonable, since the method of allocation would not reflect the invention contributions of the parties. Similarly, if an employee's inventive contribution is erroneously disregarded, that employee could challenge this under Section 35. Even if the

(*35) Nakayama, *supra* note 14, at Part II, Ch.1, Sec.1, Subsec.1, Item.1(5).

(*36) Under Section 33, while the right to obtain a patent may be transferred, "the joint owner of the right to obtain a patent may not assign his share without the consent of all the other joint owners." However, this is not grounds for rejection under Section 49 or invalidation under Section 123.

(*37) The invalidation consequence is illustrated in the Judgment of the 6th Civil Division of the Tokyo High Court, Dec. 24, 1991, Hanrei Jiho, No. 1417: p. 108 (the Automatically-Boiled Shrimp case) ([Annotation] Katsua Tamai, Jurist [Jurisuto], No. 1050: p. 180), which cancelled a JPO Trial Decision upholding the validity of a utility model registration. In that case, the registrant had claimed to be the sole inventor of a device which was in fact the sole invention of another person. The facts of the case suggest that the registrant's misrepresentation was deliberate rather than inadvertent.

(*38) Judgment of June 12, 2001, Case number 1997 (0) No. 1918, Minsu Vol. 55, No. 4, at page 793.

inventorship group is identified correctly, a dissatisfied employee could challenge the respective allocations within the group.

Recent court decisions interpreting “reasonable remuneration” for employee inventions under Section 35 have caused employers to reexamine their remuneration policies.^(*39) The new version of Section 35, taking effect on April 1, 2005, emphasizes the importance of adopting reasonable procedures to determine the amount of remuneration awarded.^(*40)

The *Aspartame/Ajinomoto* case, decided by the Tokyo District Court on February 24, 2004, indicates that a “reasonable” allocation of Section 35 remuneration must reflect the actual contributions of each employee/inventor. In that case, the employees had followed the customary practice of deciding among themselves how their Section 35 remuneration should be allocated, awarding a 5/6 share to the most senior and highly placed inventor, without careful analysis of the actual significance of each person’s contribution. Based on a detailed analysis of the employees’ respective contributions to the invention, however, the District Court determined that the senior employee was entitled to only a 50% share (although it increased the overall remuneration amount). A court would probably undertake a similar analysis under the new version of Section 35. Thus, a thorough understanding of joint inventorship is now essential to compliance with Section 35.

VII Conclusions

Although the concept of joint inventorship is similar in the United States and Japan, in both systems the legal standards can be difficult to apply in practice. This can lead to inadvertent errors; in close cases, a court’s judgment might simply differ from that of the patentee(s). Japan may wish to consider adopting some type of correction mechanism so that fewer patents will be vulnerable to invalidation under Section 38 due to inventorship errors.

Joinder requirements can be problematic in the United States and Japan, but in different contexts. In the United States, the requirement that all joint patent owners consent to an infringement suit means that an inventorship error as to even a single claim can render an entire patent unenforceable, whereas the Japanese trend toward allowing unilateral

enforcement better protects the value of patents. In Japan, the joinder problem arises in the context of licensing, pledging, and assignments of shares; in particular, the consent requirement for non-exclusive licensing, while intended to protect smaller companies, may in fact disadvantage them, and it appears to disadvantage universities as well.

Although joint inventorship issues have not caused many problems for Japanese employers in the past, careful documentation of joint inventorship is now essential to compliance with Section 35, and continues to be essential to the validity of U.S. patents. It will also be important in determining ownership of the right to obtain a patent that results from collaboration between employees of two companies, or between company employees and university faculty or students.

While it may never be possible to define joint inventorship in a way that eliminates the possibility of errors in judgment, a review of the patent laws pertaining to joint invention and joint patent ownership could lead to reforms which would enable both the United States and Japan to increase the marketability and stability of patents for joint inventions, and thereby encourage more collaborations among companies as well as universities.

(*39) *E.g.*, *Olympus Optical Co., Ltd. v. Shunpei Tanaka*, Case No. Heisei 13 (ju) No. 1256, 1822 Hanrei Jiho 39 (Sup. Ct. Apr. 22, 2003); Tokyo High Court Decision of May 22, 2001 (Hanrei Jiho No. 1753, p. 23); *Yonezawa v. Hitachi*, Case No. Heisei 14 (ne) 6451 (Tokyo High Court, Jan. 29, 2004); *Nakamura v. Nichia Chemical*, Case No. Heisei 13 (wa) 17772 (Tokyo Dist. Ct. Jan. 30, 2004) (the blue LED case).

(*40) See Matsuo Nonaka, *Current Developments: Japanese Legislative Updates on Intellectual Property in 2004*, CASRIP Newsletter (Spring/Summer 2004).

