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COMMENTS

MANDATORY PUBLICATION OF PATENT APPLICATIONS PRIOR TO ISSUANCE OF PATENTS: A DESIRABLE CHANGE IN U.S. POLICY?

I. INTRODUCTION

Under current U.S. law, the Patent and Trademark Office keeps a patent application in confidence.¹ In 1952, Congress, in enacting 35 U.S.C. § 122, codified the rule of secrecy of patent applications, which had existed in the Patent Office for generations.² This veil of secrecy exists until the Patent Office grants a patent.³ Congress, however, presently is considering abandoning this practice in favor of a system that mandates publication of each patent application eighteen months after the first filing date.⁴ The United States is the only major country in the world that does not publish pending patent applications within eighteen months of the first filing date.⁵

The United States originally sought to change 35 U.S.C. § 122 as part of the effort to harmonize world intellectual property laws.⁶ In 1994, after the United States signed a bilateral accord

1. Current U.S. patent law provides that:

Applications for patents shall be kept in confidence by the Patent and Trademark Office and no information concerning the same given without authority of the applicant or owner unless necessary to carry out the provisions of any Act of Congress or in such special circumstances as may be determined by the Commissioner.

35 U.S.C. § 122 (1994).

2. *Sears v. Gottschalk*, 502 F.2d 122, 129 (4th Cir. 1974), *cert. denied*, 425 U.S. 904 (1976) (quoting H.R. REP. NO. 1923, 82d Cong., 2d Sess. 7 (1952) and S. REP. NO. 1979, 82d Cong., 2d Sess. 6 (1952)).

3. *Id.*

4. The eighteen-month "clock" would start with the earliest filing date and is not reset by filing a subsequent continuation to the original application. See H.R. 1733, 104th Cong., 1st Sess. § 2 (1995).

5. *Patent System Harmonization Legislation is Debated in Joint Senate-House Hearing*, 44 Pat. Trademark & Copyright J.(BNA) No. 1080, at 3 (May 7, 1992).

6. One motive the United States had in seeking to harmonize patent protection is to eliminate trade distortions caused by lack of adequate protection of intellectual property rights abroad. *Japanese Patent Policy: Hearing Before the Subcommittee on Foreign Commerce and Tourism of the Committee on Commerce, Science, and Transportation*, 101st Cong., 1st Sess. 18 (1989) [hereinafter *Japanese Patent Policy Hearing*] (statement of

with Japan, Congress proposed,⁷ but did not enact, eighteen-month mandatory publication.⁸ In the bilateral agreement, the United States agreed to begin eighteen-month publication by January 1, 1996.⁹ The current proposal for eighteen-month mandatory publication is in H.R. 1733.¹⁰ The U.S. Patent and Trademark Office has proposed changes to the Rules of Practice in Patent Cases to implement the eighteen-month publication of patent applications pursuant to H.R. 1733.¹¹

Part II of this Comment addresses the rationale behind confidential applications by examining policy concerns. Part III examines the arguments in opposition to and in support of mandatory publication. Finally, Part IV concludes that the United States should not implement eighteen-month mandatory disclosure and suggests instead that the United States provide translations of published foreign applications to inventors. This approach would avoid mandatory publication of inventions belonging to exclusively domestic filers while allowing all U.S. inventors access to internationally filed applications after eighteen months.

II. POLICY BEHIND THE PRESENT SYSTEM OF CONFIDENTIAL APPLICATIONS

The U.S. patent system provides patentees with protection within the United States.¹² Growth of global markets has led many companies to sell their products abroad. Some legislators

Michael K. Kirk, Assistant Commissioner for External Affairs, Patent and Trademark Office). See also 136 CONG. REC. E3497 (daily ed. Oct. 26, 1990) (statement of Rep. Kolbe) (stating that piracy of U.S. business's intellectual property added up to between \$43 and \$61 billion dollars a year—or 30 to 50% of our trade deficit). See generally *Jobs Through Anti-Piracy: Hearing Before the Subcommittee on Economic Policy, Trade and Environment of the Committee on Foreign Affairs House of Representatives*, 103d Cong., 2d Sess. (1994) [hereinafter *Jobs Through Anti-Piracy*]. Improving intellectual property protection abroad will help U.S. companies compete abroad and thereby improve the trade deficit. *Japanese Patent Policy Hearing*, *supra*, at 2 (statement of Sen. Burns).

7. S. 2488, 103d Cong., 2d Sess. (1994).

8. See Teresa Riordan, *U.S., Japan In Accord On Patents*, N.Y. TIMES, Aug. 17, 1994, at D1.

9. *Proposed Rules on 18-Month Publication of Applications are Issued*, 50 Pat. Trademark & Copyright J. (BNA) No. 1241, at 415 (Aug. 17, 1995) [hereinafter *Rules Issued*].

10. H.R. 1733, 104th Cong., 1st Sess. § 2 (1995).

11. 60 Fed. Reg. 42,352 (1995) [hereinafter *Proposed Rules*] (to be codified at 37 C.F.R. pts. 1, 3, 5) (proposed Aug. 15, 1995).

12. ROBERT L. HARMON, *PATENTS AND THE FEDERAL CIRCUIT* 4 (3d ed. 1994).

are urging a change in the U.S. patent system in an effort to gain greater patent protection for U.S. inventors abroad.¹³ Although the United States should diligently seek greater patent protection abroad, it should not abandon underlying policy concerns and compromise its patent system.

The Constitution grants Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries"¹⁴ This clause confers power to Congress for the purpose of promoting progress.¹⁵ To this end, the patent clause allows a "balance between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the 'Progress of Science and useful Arts.'"¹⁶ The government grants a monopoly as consideration for disclosure¹⁷ and to induce¹⁸ creative effort.¹⁹

13. See 138 CONG. REC. E1041 (daily ed. Apr. 10, 1992) (statement of Rep. Hughes); see also *The Patent System Harmonization Act of 1992* (S. 2605 and H.R. 4978); *Joint Hearing Before the Subcommittee on Patents, Copyrights and Trademarks of the Senate Committee on the Judiciary and the Subcommittee on Intellectual Property and Judicial Administration of the House Committee on the Judiciary*, 102d Cong., 2d Sess. 6 (1992) [hereinafter *Patent System Harmonization Act of 1992 Hearing*] (statement of Hon. Harry F. Manbeck, Jr., Commissioner, Patent and Trademark Office).

14. U.S. CONST. art. I, § 8, cl. 8.

15. Ellsworth H. Mosher, *W(h)ither Away the U.S. Patent Office?*, 74 J. PAT. & TRADEMARK OFF. SOC'Y 335, 336 (1992) (arguing clause 8 is a limited grant of power as compared to other clauses).

16. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989).

17. This is referred to as an "exchange-for-secret." See Fritz Machlup, *An Economic Review of the Patent System, Study of the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary, Study No. 15*, 85th Cong., 2d Sess. 21 (1958). "[Inventions] would be kept secret and . . . society can obtain the substantial benefit of disclosure only by offering patent protection in exchange for publication." *Id.* at 24.

18. This is referred to as the "monopoly-profit-incentive." *Id.* at 21. According to this theory,

[t]he profit expectations connected with the hope for a patent monopoly may induce inventive talents to exert their efforts, and venturous capitalists to risk their money, in research, experimentation, development, and pioneer plants; in order to be effective, the hoped-for gains from the hoped-for monopoly may have to be a multiple of the expenses incurred since few would want to risk the loss of their entire stakes unless they had a good chance of getting back much more than they put up

Id. at 23-24. "The thesis that the patent system may produce effective profit incentives for inventive activity and thereby promote progress in the technical arts is widely accepted."

Id. at 33. One noted English inventor remarked in 1850, "[t]here is not a working boy of average ability in the New England States . . . who has not an idea of some mechanical invention or improvement . . . by which he hopes to better his position, or rise to fortune."

The underlying philosophy of the U.S. system is that the best way to promote invention is to protect the property rights of the inventor, thereby creating the economic incentive to invent.²⁰ The U.S. system creates a contract, according to which an inventor discloses his invention if the government gives substantive rights in the form of a patent.²¹ This system has the benefit of providing an incentive to design around patented inventions, which results in the creation of new innovations.²² The United States designed the patent monopoly as "a reward, an inducement, to bring forth new knowledge."²³

III. THE DEBATE OVER EIGHTEEN-MONTH MANDATORY PUBLICATION OF PATENT APPLICATIONS

A. *Arguments Against Eighteen-Month Mandatory Publication*

There are several arguments against mandatory disclosure eighteen months after filing.²⁴ Critics argue that eighteen-month mandatory disclosure would: (1) discourage use of the patent system due to inadequate trade secret protection;²⁵ (2) benefit big

AARON E. KLEIN & CYNTHIA L. KLEIN, *THE BETTER MOUSE TRAP: A MISCELLANY OF GADGETS, LABOR-SAVING DEVICES, AND INVENTIONS THAT INTRIGUE* 27 (Beaufort Books 1982).

19. *Bonito Boats*, 489 U.S. at 151 (quoting *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 186-87 (1933)).

20. *Hearing Before the Subcommittee on International Trade of the Committee on Finance of the Senate*, 103d Cong., 1st Sess. 34 (1993) [hereinafter *International Trade Hearing*] (statement of Dr. Allen I. Mendelowitz).

21. *Japanese Patent Policy Hearing*, *supra* note 6, at 48 (statement of A. E. Hirsch, Jr., Pacific Industrial Property Association).

22. *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 828 (Fed. Cir. 1992).

23. *Graham v. John Deere Co.*, 383 U.S. 1, 9 (1966).

24. Some have stated that eighteen-month mandatory publication would be costly to the U.S. Patent Office. *Patent System Harmonization Act of 1992 Hearing*, *supra* note 13, at 57 (statement by Rep. DeConcini imputing statement to Harry F. Manbeck, Jr., Assistant Secretary and Commissioner of Patents and Trademarks). The focus of this Comment is on how best to stimulate new inventions. Increased cost may be justifiable if sufficient new innovation and economic growth results. That analysis is beyond the scope of this Comment.

25. "Unlike the patent law harmonization law proposed in 1992, the current proposed language on 18-month publication does not provide for accelerated examination of applications or first office actions within 18 months of filing." *Bill Proposes 20-Year Patent Term and 18-Month Publication of Applications*, 47 Pat. Trademark & Copyright J. (BNA) No. 1167, at 354 (Feb. 17, 1994).

industry²⁶ at the expense of small inventors,²⁷ and (3) implicitly change the philosophy of the patent policy.

1. Inadequate Trade Secret Protection

Under current U.S. law, “[p]ublication does not occur until the patent is actually granted.”²⁸ The U.S. Patent Office holds pending or abandoned²⁹ applications in secrecy.³⁰ The primary purpose of maintaining secrecy is to protect the applicant’s trade secret should the Patent Office not grant a patent.³¹ According to the Restatement of Torts, “[a] trade secret may consist of any formula, pattern, device or compilation of information which is used in one’s business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.”³² An inventor is faced with a choice of receiving a patent or maintaining a trade secret. As a trade secret, an inventor can “keep his invention secret and reap its fruits indefinitely.”³³

Critics of eighteen-month publication contend “[inventors] will have to disclose their secrets to competitors without any assurance that they will ultimately be granted a patent.”³⁴ Additionally, “[m]any inventors are concerned that publication of their patent applications will jeopardize their trade secret protection on inventions that turn out not to be patentable.”³⁵ Under an eighteen-month mandatory publication system, inventors who might otherwise use the patent system might now favor trade

26. “Multinational corporations filing applications around the world have a greater self-interest in harmonization than the small entity or individual applicants” *First to File and Inequitable Conduct Dominate ABA-PTC Meeting in Atlanta*, Pat., Trademark & Copyright L. Daily (BNA), Sept. 9, 1991, available in LEXIS, Patent Library, BNAPTD File [hereinafter *First to File*].

27. Independent inventors argue they will be hurt by an eighteen-month publication rule. Riordan, *supra* note 8, at D1.

28. 140 CONG. REC. S13,863 (daily ed. Sept. 30, 1994) (statement of Rep. DeConcini).

29. *Sears v. Gottschalk*, 502 F.2d 122 (4th Cir. 1974), *cert. denied*, 425 U.S. 904 (1976) (holding that abandoned applications are entitled to secrecy).

30. 35 U.S.C. § 122 (1994).

31. Samson Helfgott, *Cultural Differences Between the U.S. and Japanese Patent Systems*, 72 J. PAT. & TRADEMARK OFF. SOC’Y 231, 232-33 (1990).

32. RESTATEMENT OF TORTS § 757 cmt. b (1939).

33. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151 (quoting *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 186-87 (1933)).

34. Riordan, *supra* note 8, at D1.

35. 138 CONG. REC. E1041 (daily ed. Apr. 10, 1992) (statement of Rep. Hughes).

secret protection rather than risk the possible disclosure of a trade secret through the application process.³⁶

Mandatory publication could fail to adequately protect trade secrets to varying degrees. If the Patent Office ultimately decides not to grant a patent after the application has been pending longer than eighteen months, an applicant has lost the trade secret and has not gained the protection of the patent system in return. Although other countries may not protect trade secrets,³⁷ the United States considers trade secrets valuable and seeks greater international recognition of this form of intellectual property.³⁸ Loss of a trade secret with nothing in return would be neither an attractive exchange nor an effective inducement.³⁹ Under the current proposed legislation, an applicant could avoid this harsh result and retain the invention as a trade secret by choosing to abandon⁴⁰ his application before publication.⁴¹ Therefore, if an inventor's application is still pending as it approaches the eighteen-month mark, the inventor must make a difficult choice. He can either remain an applicant in hopes of *potentially* receiving a patent, or withdraw the application to ensure maintenance of a trade secret.

36. Proponents of eighteen-month publication argue that few applicants would be able to effectively utilize trade secret protection in lieu of patent protection. Although this may be true, a trade secret property right, however transient, exists in every invention. See HARMON, *supra* note 12, at 3. A trade secret may be valuable to an inventor even if it cannot extend to the length of a patent. The arguments presented in this section assume that trade secrets have a value to an inventor and that the loss of a trade secret is a loss of property.

37. In 1990, Japan enacted a law protecting trade secrets. *Jobs Through Anti-Piracy*, *supra* note 6, at 58 (prepared statement of Ira S. Shapiro, General Counsel to the U.S. Trade Representative). Prior to that, although "[t]he Japanese . . . [did] have trade secret protection available on a contractual basis, . . . [they did] not, to our knowledge, have any effective protection against third parties who wrongfully acquire or use trade secrets." *Japanese Patent Policy Hearing*, *supra* note 6, at 15 (statement of Michael K. Kirk, Assistant Commissioner for External Affairs, Patent and Trademark Office).

38. *Japanese Patent Policy Hearing*, *supra* note 6, at 15.

39. See *supra* notes 17-18 and accompanying text.

40. "[A]n application that is no longer pending shall not be published . . ." H.R. 1733, 104th Cong., 1st Sess. § 2 (1995).

41. Eighteen-month mandatory publication as proposed in H.R. 1733 provides that an independent inventor's application, upon filing a request and fee, would not be published until three months after the first office action by the PTO, even if that occurs later than eighteen months after filing. *Rules Issued*, *supra* note 9. Ninety-two percent of applicants already receive a first office action within fourteen months. *Patents, Patent Office Holds Hearing on Rules for 18-Month Publication of Applications*, Daily Rep. for Executives (BNA), at A182 (Sept. 20, 1995) [hereinafter *Patents, Patent Office*].

If the applicant chooses not to withdraw and the Patent Office ultimately grants a patent some time after eighteen months, the inventor temporarily loses his trade secret. The temporary loss of a trade secret can lead to improper third-party exploitation and loss of a competitive advantage. Current U.S. patent law protects an inventor from third-party exploitation of his invention by maintaining confidentiality. To allay concerns about third-party exploitation, H.R. 1733 provides a reasonable royalty provision. A reasonable royalty allows patentees to recover for use of their patented inventions during the pre-grant period subsequent to publication.⁴² This provision is open to severe criticism, however, because it requires actual notice or knowledge of the published patent application⁴³ and that the "invention claimed in the patent . . . [be] identical to the invention as claimed in the published patent application."⁴⁴ Because the entire process of patent examination requires sculpting and molding of patent claims, this situation almost never occurs.⁴⁵

If the secret is out and the Patent Office has not yet granted the patent, the applicant loses a competitive advantage. Because the applicant does not know what will be the ultimate scope of the patent, he may not be able to proceed. This uncertainty causes, in part, a loss of advantage.⁴⁶ Pending applications are not as valuable as patents.⁴⁷ Venture capitalists are unlikely to give money on rights which may never mature.⁴⁸ Uncertainty as to the scope of a patent also weakens a prospective patentee's negotiating position during licensing.⁴⁹ In the interim, the invention is public. Now aware of the invention, competitors are free to begin designing around it. Competitors are able to compete

42. H.R. 1733, 104th Cong., 1st Sess. § 4 (1995).

43. *Id.*

44. *Id.*

45. *Hearing of the Courts and Intellectual Property Subcommittee of the House Judiciary Committee*, Fed. Info. Sys., Nov. 3, 1995, available in LEXIS, News Library, CURNWS File (statement of Robert Rines, Franklin Pierce Law Center) [hereinafter *Intellectual Prop. Subcommittee Hearing*].

46. See *Japanese Patent Policy Hearing*, *supra* note 6, at 70 (statement of A.E. Hirsch, Jr., Pacific Industrial Property Association).

47. *Intellectual Prop. Subcommittee Hearing*, *supra* note 45.

48. See *id.*

49. See *Japanese Patent Policy Hearing*, *supra* note 6, at 70 (statement of A.E. Hirsch, Jr., Pacific Industrial Property Association).

more effectively than they would absent the Patent Office's disclosure of the inventor's idea.

Competitors are more likely than ever to be able to exploit this information. The ease of retrieving information in today's society is unprecedented. In today's world, mandatory publication is virtually certain to put this information in the hands of competitors. Currently, full text and drawings of published patents are available on the Internet.⁵⁰ Under rules that the U.S. Patent and Trademark Office has proposed, "[t]he current planning approach to the implementation of early publication is to create an electronic data base which captures the technical content, i.e., the specification, abstract, claims and drawings, of the application-as-filed This electronic data base will be used to provide . . . electronic searching and retrieval of applications"⁵¹

The loss of a competitive edge due to eighteen-month mandatory publication, along with the possibility of receiving nothing in return for the disclosure of an invention, is a less attractive exchange⁵² and discourages disclosure.⁵³ Mandatory publication, instead, would erode the purpose of a patent law by inadequately protecting the property rights of inventors. As the courts have noted, "the filing of an application for a patent is [not] the dedication of a secret to the public If the secret is valuable, the discoverer, conceiving it to be patentable, would by making application hazard both secret and patent. This would defeat the very purpose of the patent law"⁵⁴

2. Gains for Large Corporations at the Expense of Small Entities

Independent inventors and small companies fear a system that gives benefits to big industry at their expense.⁵⁵ "A [patent] system clearly favors major companies that have established marketing strength whenever [it] . . . negates an advantage for the

50. Sabra Chartrand, *Going On-Line Speeds Patent Searches*, INT'L HERALD TRIB., Aug. 15, 1995, available in LEXIS, News Library, CURNWS File. Full text and drawings are available on the World Wide Web at site <http://www.micropat.com>. *Id.*

51. *Proposed Rules*, *supra* note 11, at 42,352.

52. *See supra* note 17 and accompanying text.

53. *See supra* note 18 and accompanying text.

54. *A.O. Smith Corp. v. Petroleum Iron Works Co.*, 73 F.2d 531, 536 (6th Cir. 1934).

55. *First to File*, *supra* note 26.

patentee.”⁵⁶ Increased protection abroad at the expense of weakening domestic protection would not further long range U.S. competitiveness. Independent inventors and small companies also fear the loss of a needed competitive advantage. In addition, eighteen-month mandatory publication could discourage filing and potentially serve as a tool to slow patent prosecution.⁵⁷

One of the arguments for changing the patent system has been the need to compete in a global economy.⁵⁸ Achieving stronger patent protection abroad will help increase U.S. exports,⁵⁹ most of which large companies produce.⁶⁰ Hence, larger, multinational corporations stand to receive the greatest benefit from worldwide patent protection.⁶¹ While stronger patent protection abroad⁶² is something the United States should diligently seek, gaining such protection should not be at the expense of independent inventors and small companies. Small and medium size businesses produce seventy-five percent of the U.S. gross national product.⁶³ Furthermore, “less than 30% of . . . United States based industrial capacity [from large companies] goes into foreign trade.”⁶⁴ According to these statistics, perceived gains by large U.S. multinational corporations can not justify changing patent procedure if achieving these gains is at a significant expense to domestic industry.

In addition, “it is well-recognized that the American competitive edge is technology and the Japanese competitive edge is production.”⁶⁵ Thus, even if U.S. patent laws provide early access

56. *Japanese Patent Policy Hearing*, *supra* note 6, at 78 (statement of George B. Rathmann, Chairman, Amgen Corporation).

57. Patent prosecution is a term of art used to describe the application process.

58. *Patent System Harmonization Act of 1992 Hearing*, *supra* note 13, at 152 (statement of Douglas W. Wyatt).

59. See generally *Japanese Patent Policy Hearing*, *supra* note 6, at 2.

60. *Patent System Harmonization Act of 1992 Hearing*, *supra* note 13, at 152 (statement of Douglas W. Wyatt).

61. *First to File*, *supra* note 26.

62. See *infra* part III.B.3.

63. *Patent System Harmonization Act of 1992 Hearing*, *supra* note 13, at 152 (statement of Douglas W. Wyatt).

64. *Id.*

65. *Testimony June 08, 1995 Raymond Damadian, M.D. President and Chairman Fonar Corporation House Judiciary Courts and Intellectual Property Patents-Legislation*, Fed. Doc. Clearing House (June 8, 1995), available in LEXIS, News Library, CURNWS File [hereinafter *Damadian Testimony*].

to new technology,⁶⁶ actual gains by U.S. multinational corporations could be less than the perceived gains. Benefits to large companies, at the expense of independent inventors and small companies, arguably would not increase the long range competitiveness of the United States.

Independent inventors and small companies also fear that a loss of competitive advantage, resulting from publication prior to issuance, will allow larger corporations with more capital to move more quickly into the field.⁶⁷ Allowing others to rapidly develop applications that the published application suggests could be calamitous for the independent inventor.⁶⁸ Domestic and foreign corporations alike could begin developing products in areas previously known only to the inventor and the Patent Office until the Patent Office issues the patent.⁶⁹

Critics oppose early publication because large corporations could exploit the process to slow patent prosecution. Some believe that large companies could file overly broad claims in order to create phony prior art as a means to discourage small inventors from pursuing their own patent applications.⁷⁰

In addition, some critics have suggested that third parties could use prior art to delay prosecution.⁷¹ Under Rule 56, an applicant has an ongoing duty of candor that requires disclosure of prior art to the examiner while the application is pending.⁷² If an applicant does not disclose prior art, the Patent Office could find the applicant to have engaged in inequitable conduct.⁷³ After learning of the content of an application, a third party could flood

66. For a discussion of the benefits of earlier access to new technology, see *infra* part III.B.1.a.

67. See *supra* notes 46-51 and accompanying text.

68. *Testimony November 01, 1995 David Hill, President Patent Enforcement Fund, Inc. House Judiciary Courts and Intellectual Property Patents-Legislation*, Fed. Doc. Clearing House (Nov. 1, 1995), available in LEXIS, News Library, CURNWS File [hereinafter *Hill Testimony*].

69. *Id.*

70. *Patents, Patent Office, supra* note 41.

71. *PTO Holds Public Hearing on 18-Month Publication of Patent Applications*, 49 Pat., Trademark & Copyright J. (BNA) No. 1217, at 492 (Feb. 23, 1995) [hereinafter *PTO Holds Hearing*].

72. "Each individual associated with the filing an prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability" Rules of Practice in Patent Cases, 37 C.F.R. § 1.56 (1995).

73. *PTO Holds Hearing, supra* note 71.

the applicant with prior art. If the applicant does not disclose that art to the Patent Office, the Patent Office could later invalidate a patent. Disclosure of the irrelevant prior art delays the examiner. Also, it could ultimately force the applicant to overcome objections based on irrelevant prior art. This would delay prosecution and increase the cost of the application.

3. Implicit Change in Patent Policy

The essential purpose of a patent in the United States is to protect the inventor.⁷⁴ Other countries "do not consider the rights of the individual the way we do in [the] United States of America." As a result, "most of the innovation happens in the United States of America."⁷⁵ Some now believe that the right of the public to information outweighs the right of an inventor to keep their information confidential until the U.S. government grants a patent.⁷⁶ But, focusing on the inventor does benefit the public. As one U.S. Senator noted, "[t]here never was a true invention from which the public did not reap infinitely greater pecuniary reward than the inventor."⁷⁷

In comparison, different fundamental policy considerations guide Japan in its approach to promoting economic development. Japan's philosophy is to promote economic development through a maximum diffusion of technology.⁷⁸ Mandatory publication of an application for all to see is a natural result of this type of policy. Focusing on maximum diffusion as a means to promote economic development, rather than the protection of property rights, favors mandatory eighteen-month publication over publication after securing a property right. Some claim that this policy is a result of the "strong relationship between the government and the major corporate entities . . . [causing] that patent system . . .

74. Helfgott, *supra* note 31, at 232.

75. *Intellectual Prop. Subcommittee Hearing*, *supra* note 45, at 17 (statement of Rep. Rohrabacher).

76. See *Testimony June 08, 1995 Andrew Kimbrell Executive Director International Center for Technology Assessment House Judiciary Courts and Intellectual Property Patents-Legislation*, Fed. Doc. Clearing House (June 8, 1995), available in LEXIS, News Library, CURNWS File (statement of Andrew Kimbrell, Executive Director International Center for Technology Assessment).

77. *Intellectual Prop. Subcommittee Hearing*, *supra* note 45 (Raymond Damadian, inventor of Magnetic Resonance Imaging, quoting an 1891 statement of Sen. O.H. Platt).

78. *International Trade Hearing*, *supra* note 20, at 34.

[to be] entirely dominated by the viewpoint that they represent."⁷⁹ Conforming the U.S. patent system would implicitly adopt the maximum diffusion model to replace the property rights model.⁸⁰

B. Arguments in Support of Mandatory Publication

Arguments supporting eighteen-month mandatory publication include: (1) providing earlier access to new inventions; (2) giving U.S. inventors access to information that, although secret in the United States, is public information in foreign countries; (3) using such publication as a bargaining chip to attain more meaningful protection of patents in other countries; (4) establishing conformity with the rest of the world; and (5) having limited impact on U.S. applicants.

1. Earlier Access to New Inventions

a. Stimulation of New Ideas

Proponents of mandatory publication believe that earlier disclosure of all inventions would provide U.S. inventors with leading technology⁸¹ and would enable them to save resources.⁸² Mandatory disclosure would save resources by preventing duplication of research and signaling promising areas of research.⁸³ Some commentators argue that providing U.S. inventors with leading technology through early disclosure would enhance U.S. industrial development.⁸⁴ They believe that eighteen-month publication is the proper balance between the needs of the inventor and the desire for rapid dissemination of information. These commentators base this conclusion on the

79. *Intellectual Prop. Subcommittee Hearing*, *supra* note 45 (statement of Dr. David L. Hill, President, Patent Enforcement Fund, Incorporated).

80. Though this model is successful in countries such as Japan, it may not be sufficient to achieve the underlying goals and purposes of U.S. patent laws. For a discussion comparing the results of the different policies, see *infra* notes 90-94 and accompanying text.

81. 140 CONG. REC. S13,863 (daily ed. Sept. 30, 1994) (statement of Sen. DeConcini).

82. *Id.*

83. *Id.*

84. "[L]aying open patent applications helps domestic industry." Paul A. Ragusa, *Eighteen Months to Publication: Should the United States Join Europe and Japan by Promptly Publishing Patent Applications?*, 26 GEO. WASH. J. INT'L L. & ECON. 143, 162 (1992).

overwhelming use of eighteen-month publication in other countries. They believe that the United States should adopt the eighteen-month mandatory publication system because, in other countries, it neither punishes inventors nor perceivably dilutes the incentive value of a patent.⁸⁵

One of the purposes of the U.S. patent system is to encourage dissemination of information concerning discoveries and inventions⁸⁶ in order to stimulate further creative ideas.⁸⁷ To be sure, new ideas stimulate others to invent; however, early disclosure is not the only means to stimulate innovation and encourage industrial development. As one court noted, "the obligation to disclose is not the principal reason for a patent system The reason for the patent system is to encourage innovation and its fruits" ⁸⁸ It would be erroneous to state that early public disclosure is the "linchpin" of the patent system.⁸⁹

Focusing solely on the stimulation of ideas as the purpose behind the patent system would lead to the conclusion that publishing patent applications *immediately* after the Patent Office receives the application would achieve maximum industrial development.⁹⁰ Immediate publication undoubtedly would cause prospective patentees to consider what they stand to receive as consideration for revealing their secret to the public. Similarly, mandatory publication at eighteen months would reduce a patentee's prospects of reaping the fruits of innovation, and would have a negative effect on the decision to seek patent protection. Protecting the economic expectations that accompany property rights creates the economic incentive to invent.

Although focusing on early disclosure has provided successful means of producing economic prosperity in other countries, it may not necessarily produce the same result domestically. This is due

85. *Patent System Harmonization Act of 1992 Hearing*, *supra* note 13, at 67 (statement of Robert F. Merges, Associate Professor of Law, Boston University School of Law). The "needs of the inventor[] include[] the availability of a reasonable time after filing to assess the prospects for patentability and perfect the details of the invention." *Id.*

86. *Brenner v. Manson*, 383 U.S. 519, 532 (1966).

87. *Japanese Patent Policy Hearing*, *supra* note 6, at 61 (statement of Pacific Industrial Property Association).

88. *Paulik v. Ritzkalla*, 760 F.2d 1270, 1275 (Fed. Cir. 1985).

89. *See id.* at 1282 (describing the public policy inherent in 35 U.S.C. § 102(g)).

90. The only support that earlier publication of ideas might hasten technological advance is by analogy to basic research. Pure scientists are urged to publish as early as possible. *Machlup*, *supra* note 17, at 25.

to different policy concerns⁹¹ and differences in economic needs.⁹² Japan's economy relies heavily on export, whereas the United States relies heavily on its internal market.⁹³ This has led to marked differences in the type of inventions produced.

In the past fifty-five years, U.S. citizens have won over fifty percent of the awards and Nobel prizes in science and engineering, medicine, and microbiology. Japanese citizens have not won any.⁹⁴ The commissioner of Japan's Patent Office underscored these differences in the type of inventions produced on a recent visit to the United States. He stated that "most of their work is a result of improvement patents building on technologies invented in the United St[ates]"⁹⁵ So, despite its success abroad, mandatory publication may not produce identical results because of these underlying fundamental policy differences.

b. Submarine Patents

Yet another complaint stemming from the unavailability of early access to applications is that it allows "submarine patents" to emerge and disrupt entire industries.⁹⁶ A submarine patent is a patent that is granted, or "emerges," after a long pendency period in the U.S. Patent Office, during which time others may have unknowingly infringed on the patent.⁹⁷ Under existing law, patent examiners cannot consider an earlier-filed patent application when determining the patentability of a later-filed application.⁹⁸ Examiners can only consider an earlier-filed application after the patent is issuance.⁹⁹ Issuance of a patent can take from one year to more than a decade.¹⁰⁰ If the grant covers a previously granted but later-filed application, a submarine patent

91. See *supra* note 78-79 and accompanying text.

92. *Damadian Testimony*, *supra* note 65.

93. *Id.*

94. *Intellectual Prop. Subcommittee Hearing*, *supra* note 45 (statement of James Chandler, President, National Intellectual Property Law Institute).

95. *Id.*

96. Ragusa, *supra* note 84, at 164 (citing Final Report of Committee 108, 1991 A.B.A. SEC. PAT. TRADEMARK & COPYRIGHT L. 5).

97. *Recent Developments in the Legislature: Hearing Held on Patent Term Reform Bill*, 5 J. PROPRIETARY RTS. 23 (May 1994) [hereinafter *Recent Developments*].

98. *Patent System Harmonization Act of 1992 Hearing*, *supra* note 13, at 103 (statement of Robert B. Benson, Past President, American International Property Law Association).

99. *Id.*

100. *Id.*

has emerged. The submarine patent then challenges the validity of the previously granted, later-filed application.

The threat of submarine patents causes uncertainty in the marketplace. Publication at eighteen months would provide certainty as to patentability determinations that the Patent Office makes.¹⁰¹ Arguably, "[u]nder existing law, inventors sometimes commit substantial resources to development of an invention based on an incomplete, erroneous assessment of patentability of the applications they file."¹⁰² Reducing the possibility of submarine patents would be a benefit to these inventors. Eighteen-month mandatory publication is an effort to address the problem of submarine patents.¹⁰³

Submarine patents can occur in several ways. One way is when an applicant prolongs the period of pendency by filing a continuing application under 35 U.S.C. § 120. A continuing application provides a mechanism for the patent applicant to more accurately or correctly claim the invention that an earlier application disclosed while still retaining the benefit of his original filing date.¹⁰⁴ Some suggest that patent applicants may use this mechanism intentionally to delay the patent grant to gain an advantage in the marketplace.¹⁰⁵ Possible improper motives for delaying patent prosecution include delaying publication, shifting the patent term forward in time, and prolonging the effective

101. *See id.*

102. *Id.*

103. *Recent Developments*, *supra* note 97.

104. IRVING KAYTON, 2 PATENT PRACTICE 6-1 (PRI 1993). Commentators note that patent applications on breakthrough inventions often are filed with an incomplete understanding of the significance of the invention. The patent office does a search of the prior art and, in light of the search, invariably rejects the application. The applicant is given a chance to speak with the examiner and to amend the application. If the applicant is unable to amend it satisfactorily, there is a final rejection. The applicant then can: respond to the final rejection by placing the application in a condition for allowance in accordance with the examiner's suggestions (not as a matter of right); appeal the examiner's decision to the board of appeals; decide not to seek patent protection; or file a continuation. A continuation application gives the applicant another opportunity to present claims to the same invention and to have dialog with an examiner. With breakthrough inventions, three or four continuation applications are sometimes needed. *See Intellectual Prop. Subcommittee Hearing*, *supra* note 45, at 50 (statement of Robert Rines, Franklin Pierce Law Center). For a more detailed description of the U.S. Patent Office examining procedure, see U.S. DEP'T OF COMMERCE, MANUAL OF PAT. EXAMINING PROC. (5th ed. rev. 15, 1993).

105. *See* Samuel C. Miller III, *Undue Delay in the Prosecution of Patent Applications*, 74 J. PAT. & TRADEMARK OFF. SOC'Y 729, 733 (1992).

period of exclusivity.¹⁰⁶ Others also allege that applicants intentionally "delay decisions so that the patent can surface years later in infringement claims against the unwary."¹⁰⁷ Though these allegations exist, "the data show this practice to be rare."¹⁰⁸

During a GATT fast-track hearing last summer, U.S. Patent Commissioner Bruce Lehman warned of submarines, testifying that between 1971 and 1993 there were 627 cases in which patent pendency exceeded 20 years, with one taking 36 years.

According to former U.S. Patent Commissioner Donald Banner, 257 of those patents were owned by the U.S. government and kept secret for security reasons, and 75 private patents were also subject to secrecy orders, including [the] one . . . that took 36 years. "Even assuming 300 subs in those 23 years," says Banner, "that's one for every 7,700, or 13/1,000s of 1 percent." Probably an even smaller number remained commercially significant, with few, if any, the result of deliberate manipulation by applicants.¹⁰⁹

Due to their rarity, patent officials could deal with commercially significant, improperly motivated submarine patents could be dealt with on a case-by-case basis. Although of questionable effectiveness, principles of laches, forfeiture, or inequitable conduct could provide avenues of redress for particularly egregious cases.¹¹⁰

Improperly motivated submarine patents may become even less significant in the future, without the need for eighteen-month mandatory publication, due to recent revisions in U.S. patent laws.¹¹¹ As a result of GATT negotiations, patent protection now commences after the patent grant, and lasts for twenty years

106. *Id.* at 732-33.

107. Donald W. Banner & Skip Kaltenheuser, *Don't Sneak Changes Into GATT*, N.Y. TIMES, Aug. 28, 1994, § 3, at 9, reprinted in 140 CONG. REC. E2206 (daily ed. Oct. 8, 1994).

108. *Id.*

109. Robert H. Rines & Skip Kaltenheuser, *Patent Legislation Pending*, CONN. L. TRIB., July 3, 1995, at 21.

110. See Miller, *supra* note 105, at 737-49 (citing the difficulty of proof and the courts' reluctance to find invalidity or unenforceability when the applicant is using accepted practice or procedural mechanisms that are legal). The author suggests that shifting the burden of proceeding to the patentee after some defined period, to show that the delays the patentee caused were reasonable, would help meet the burden of showing improper intent by clear and convincing evidence. *Id.* at 746.

111. *Id.* at 749 (stating that fixing the term from the priority date could prove an effective solution to intentionally delayed patents).

from the filing date of the original application.¹¹² This is true whether or not there is a continuing application. This recent change in patent law removes any incentive to delay the granting of the patent. Applicants can neither shift the patent forward in time nor prolong the effective exclusivity of the patent. Because applicants can no longer achieve these objectives, the amount of improperly motivated submarine patents should decrease to virtually nothing.

As an alternative to mandatory publication at eighteen months, Congress has introduced a bill to address submarine patents.¹¹³ It provides for automatic publication of patent applications where continuing applications claim the benefit of a filing date of a prior application filed more than five years earlier.¹¹⁴ Publication five years after the filing date would limit

112. Uruguay Round Agreements Act, Pub. L. No. 103-465, § 532, 108 Stat. 4809 (1994). Congress enacted Pub. L. No. 103-465 on December 8, 1994. The twenty-year term took effect June 8, 1995. *Id.* § 534. The term of a patent that is in force on, or that results from an application filed before, the date that is 6 months after the date of enactment, shall be the greater of the twenty-year term or seventeen years from the grant of patent. *Id.* § 532.

113. *Bill Would Amend GATT Legislation to Provide 17 or 20 Year Patent Term*, Pat. Trademark & Copyright L. Daily (BNA) (Jan. 20, 1995), available in LEXIS, Patent Library, BNAPTD File.

114. H.R. 359 provides:

Section 1. Patent Terms.

(a) Amendment.-Effective on the date of the enactment of this Act, Section 154 of Title 5, United States Code, as amended by the Uruguay Round Agreements Act, is amended-

(1) In paragraph (2) of subsection (A), by striking "and ending" and all that follows in that paragraph and inserting "and ending-

(A) 17 years from the date of the grant of the patent, or

(B) 20 years from the date on which the application for the patent was filed in the United States, except that if the application contains a specific reference to an earlier filed application or applications under Section 120, 121, or 365(C) of this Title, 20 years from the date on which the earliest such patent application was filed, whichever is later.";

(2) by amending subsection (B) to read as follows:

"(B) Patent Disclosure. - In the event that a continuing patent application is filed that claims the benefit of the filing date of a prior application that was filed more than 60 months earlier, notices of the original patent application and of the continuing patent application shall be published and the public shall be permitted to inspect and copy the original patent application and the continuing patent application."; and

(3) in subsection (C)(1), by striking "shall be the greater of the 20-year term as provided in subsection (A), or 17 years from grant" and inserting "shall be the term provided in subsection (A)".

(B) Technical Amendment. - Section 534(B) of the Uruguay Round Agreements Act is amended by striking paragraph (3).

H.R. 359, 104th Cong., 1st Sess. § 1 (1995).

the period of pendency and therefore by definition eliminate submarine patents before the potential to disrupt entire industries develops. Like eighteen-month mandatory publication, five-year mandatory publication not only will limit the duration of secrecy on intentionally delayed applications, but also will affect those that are delayed through no fault of the applicant. Although it is iniquitous to penalize an inventor who is making a genuine effort to perfect a patent, this longer time period is not as severe a disincentive to use the patent system.

Nevertheless, none of these solutions, including eighteen-month publication, will remove the bulk of the submarine patents. The bulk of the submarine patents remain secret due to national security interests; the Patent Office would not publish these applications under the Proposed Rules.¹¹⁵

2. Giving U.S. Inventors Access to Information Made Public in Foreign Countries

Publishing applications at eighteen months would benefit U.S. inventors by disclosing the applications of international filers. Internationally filed applications are public information in foreign countries but not in the United States. Under the present system, foreign inventors have access to these new inventions before U.S. inventors, providing them with a clear advantage.¹¹⁶

Publishing applications at eighteen months would provide U.S. inventors with access to a "comprehensive technological database that foreign inventors receive in their own language from their own Patent Offices."¹¹⁷ Although U.S. inventors have access to foreign Patent Offices and translators, small businesses with limited resources are unlikely to be able to capitalize on this information.¹¹⁸ This affects a significant amount of businesses because "50% of all new inventions, and patents [developed in the United States] are developed [by] . . . small . . . business."¹¹⁹

115. *Proposed Rules*, *supra* note 11, at 42,353.

116. 140 CONG. REC. S13,863 (daily ed. Sept. 30, 1994) (statement of Sen. DeConcini).

117. 140 CONG. REC. S1524, S1525 (daily ed. Jan. 25, 1994) (statement of Sen. DeConcini); *see also Patent System Harmonization Act of 1992 Hearing, supra* note 13, at 104 (statement of Robert B. Benson, Past President, American Intellectual Property Law Association).

118. Ragusa, *supra* note 84, at 166.

119. *Testimony January 18, 1995 John Satagaj Small Business Legislative Council House Small Business Small Business/Tax Policy*, Fed. Doc. Clearing House (Jan. 18, 1995),

Furthermore, inventions by independent inventors and small companies are not trivial. Over half of the sixty-one most important innovations of the 20th century came from independent inventors or small firms.¹²⁰ Congress should seriously consider providing these inventors the same access to information that foreign inventors and select U.S. inventors enjoy. In addition to benefitting small inventors by providing access to this information, select U.S. inventors would benefit by eliminating the expense of retrieving this information from abroad.

This argument presents a compelling reason for mandatory disclosure of all applications. Other alternatives, however, are available to achieve this same objective. One alternative to mandatory publication would be for the U.S. government to provide translations of public information from foreign Patent Offices to inventors in the United States. In addition to giving U.S. inventors access to information that, although secret in the United States, is public information in foreign countries, these translations would provide examiners with a more comprehensive database with which to make patentability determinations.

This "sharing of information" was one aspect of the harmonization talks.¹²¹ The U.S., Japanese, and European Patent Offices have agreed to exchange information by compact disc read-only memory,¹²² updating information monthly.¹²³

Another reason to institute government sponsored translations rather than disclosure is that, with mandatory publication, the United States would be doing *more* than simply giving U.S. inventors access to information that their foreign counterparts already enjoy. Due to the U.S. best mode requirement,¹²⁴ a U.S.

available in LEXIS, News Library, CURNWS File.

120. U.S. DEPT COM., TECHNOLOGICAL INNOVATION: ITS ENVIRONMENT AND MANAGEMENT 16-17 (1967); *see also* 137 CONG. REC. H2755, H2759 (daily ed. May 2, 1991) (statement of Rep. Bentley).

121. *Japanese Patent Policy Hearing*, *supra* note 6, at 12-13 (statement of Michael K. Kirk, Assistant Commissioner for External Affairs, Patent and Trademark Office).

122. *Agreement Reached on CD-ROM Distribution of Patent Info*, Japan Economic Newswire (Nov. 18, 1994), available in LEXIS, News Library, CURNWS File.

123. *See Intellectual Property, JPO's Patent Database Beats EU, U.S. in Sharing Agreement*, Daily Rep. for Executives (BNA), at A66 (Apr. 6, 1995).

124. The specification in an application for patent shall "set forth the best mode contemplated by the inventor of carrying out his invention." 35 U.S.C. § 112 (1994). "The purpose of the best mode requirement is to restrain inventors from applying for patents while at the same time concealing from the public preferred embodiments of their inventions." Harmon, *supra* note 12, at 151.

application discloses more information than applications in some other countries. In Japan and Germany, patent laws do not require the inventor to disclose the best mode to carry out his invention.¹²⁵ By publishing at eighteen months, the United States actually could be disclosing additional information that is not already public in other countries. Thus, providing translations would allow applicants filing in countries that do not require best mode disclosure to keep their best mode secret until the United States grants a patent.

Yet another alternative exists if the United States is prepared to change the underlying policy guideposts of its current patent system¹²⁶ and make a concession using eighteen-month mandatory publication as a bargaining chip.¹²⁷ The United States could institute a two-track system of applications. This system would allow domestic and international filers to file different applications. The Patent Office would hold the application of an applicant filing only a domestic application in secrecy until it issues a patent. The Patent Office would mandatorily disclose after eighteen months the U.S. applications of those who also file for a foreign patent. By instituting this two-track system, the U.S. Patent Office could provide information to U.S. inventors that is public information in foreign countries but not in the United States.

Unlike government provided translations, the two-track system does not have the advantage of giving U.S. inventors access to *all* applications filed in foreign countries. In addition, due to the best mode requirement in the United States, a U.S. applicant still may be revealing more information than will become public as a result of foreign application publication. Nevertheless, it would give U.S. inventors access to information that has become public information in foreign countries due to foreign mandatory disclosure policies.

3. Mandatory Publication as a Bargaining Chip

The United States could use mandatory publication as a bargaining chip to attain more meaningful changes in patent

125. Jerry R. Selinger, *In Defense of "Best Mode": Preserving the Benefit of the Bargain for the Public*, 43 CATH. U. L. REV. 1071, 1072 n.6 (1994).

126. See *supra* notes 20-23 and accompanying text (discussing the underlying philosophy of the U.S. patent system).

127. See *infra* part III.B.4.

protection abroad.¹²⁸ These changes include: (1) faster patent approval; (2) increased scope of patents and their interpretation by courts; (3) elimination of pre-grant approval; (4) elimination of compulsory licensing; and (5) the ability to file in English and correct translation errors by referencing the original document.¹²⁹

The most serious problem for U.S. inventors filing in foreign countries is the time required for an application to mature into a patent.¹³⁰ A foreign inventor filing in the United States receives his patent much sooner than a U.S. inventor filing abroad.¹³¹ Delays create uncertainty as to what the ultimate scope of the patent will be, thus affecting a potential patentee's ability to plan for production and to bargain effectively in licensing agreements.¹³²

Eliminating pre-grant opposition is one way to help reduce the pendency period of patent applications abroad. Pre-grant opposition "delays the patent grant and slows down informal or formal enforcement since the application still lacks the official government stamp of approval."¹³³ In addition, pre-grant opposition "places a burden on the applicant because the opposer can prepare his opposition over several years while the applicant has only a few months to respond."¹³⁴ Furthermore, "[p]atent applications on major innovations . . . are often vigorously challenged by large companies, which can afford a battery of attorneys to pour over documents looking for weakness[es]."¹³⁵ Further criticism of pre-grant opposition under the Japanese system points to its inherent bias against patent application approval. In Japan, a patent examiner may receive many letters

128. See *Japanese Patent Policy Hearing*, *supra* note 6, at 32 (statement of Michael K. Kirk, Assistant Commissioner for External Affairs, Patent and Trademark Office) (stating that changes in Japanese patent laws will not occur without some changes also taking place in U.S. patent laws.)

129. See, e.g., *id.* at 6 (statement of Michael K. Kirk, Assistant Commissioner for External Affairs, Patent and Trademark Office).

130. *Id.* at 54 (statement of Pacific Industrial Property Association).

131. See *infra* notes 189-92 and accompanying text. Japanese patent applications could take as long as seven years. 139 CONG. REC. H7697 (daily ed. Oct. 12, 1993) (statement of Rep. Fish).

132. See *Japanese Patent Policy Hearing*, *supra* note 6, at 47 (statement of A.E. Hirsch, Jr., Pacific Industrial Property Association).

133. *Id.* at 55.

134. *Id.* at 60 (statement of the Pacific Industrial Property Association).

135. Dana Rohrabacher, *Keeping U.S. Patent Protections*, J. COM., June 21, 1994, at A6, reprinted in 140 CONG. REC. E1293 (daily ed. June 22, 1994).

of opposition to an application. He then has the choice of *either* responding to each and every letter after granting the patent, *or* denying the patent application.¹³⁶ This creates a bias because the latter choice requires much less work. Clearly, eliminating pre-grant opposition would remove this bias and help reduce pendencies in the Japanese Patent Office.

The strength of protection a patent affords depends largely on its scope. The broader the scope, the larger the number of competing products and processes that will infringe the patent.¹³⁷ The United States especially desires increasing the scope of patents and their interpretations in Japan. It is difficult to obtain a broad, commercially viable patent in Japan.¹³⁸ The Japanese system instead encourages filing large numbers of applications on inventions of limited scope.¹³⁹ In addition, Japanese courts interpret patents very narrowly,¹⁴⁰ essentially allowing companies to copy inventions.¹⁴¹

Compulsory licensing is another problem U.S. inventors often face abroad. As a condition of patent protection, some countries require that the inventor license his invention to local industry or even to other foreign enterprises at royalty rates that country has determined.¹⁴² This requirement puts inventors in a position of having to compete with their licensee in the foreign market. This affects market share and profits in the foreign country.

The ability to file in English and correct translation errors by referencing the original application also would benefit U.S. inventors. Problems with translation can affect the scope of the

136. *Japanese Patent Policy Hearing*, *supra* note 6, at 46 (statement of the Pacific Industrial Property Association).

137. Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839 (1990).

138. *International Trade Hearing*, *supra* note 20, at 26 (statement of Dr. Allen I. Mendelowitz).

139. *Japanese Patent Policy Hearing*, *supra* note 6, at 54 (statement of Pacific Industrial Property Association).

140. Leslie Helm, *Chip Manufacturer is Denied Patent by Japanese Court; Computers: Ruling that Fujitsu Chips Don't Infringe on Texas Instruments' Patent May Ignite Trade Concerns*, N.Y. TIMES, Sept. 1, 1994, at D2.

141. *Id.*; see also *Intellectual Property, U.S. Complains about Japan's System for Patents in Latest Round of Talks*, Daily Rep. for Executives (BNA), at A110 (June 8, 1995), [hereinafter *Intellectual Prop. Talks*].

142. *Jobs Through Anti-Piracy*, *supra* note 6, at 20 (statement of Bruce A. Lehman, Assistant Secretary and Commissioner of Patents, Patent and Trademark Office, Department of Commerce).

patent. The European Patent Office¹⁴³ and, recently, the Japanese Patent Office have instituted this revision procedure. The Japanese Patent Office previously only allowed insertion of foreign words, which could create translational ambiguities, into the text of an application.¹⁴⁴ One difficulty with this procedure is that it required the applicant or translator to foresee where possible ambiguities might exist before filing the application.¹⁴⁵ In addition, time constraints aggravated this task.¹⁴⁶

These problems create obstacles for U.S. inventors seeking patents abroad. The United States, however, is not without means to persuade other countries to change the unfair practices of their patent systems. The United States can institute sanctions under section 301 of the Omnibus Trade and Competitiveness Act of 1988.¹⁴⁷ A patent system that fails to provide adequate protection creates non-tariff barriers to free trade.¹⁴⁸ Section 301 "is designed to 'eliminate the acts, practices or policies of foreign governments which adversely affect United States' exports.'"¹⁴⁹ Section 301 operates as a unilateral mechanism to enforce the legal rights of the United States.¹⁵⁰ It enables the United States to "increase tariffs to induce a country to improve its patent protection"¹⁵¹ Although Congress has considered using this provision,¹⁵² critics of this mechanism argue it is undesirable either because of the high risk of retaliation or because of a belief that

143. *Japanese Patent Policy Hearing*, *supra* note 6, at 47 (statement of A.E. Hirsch, Jr., Pacific Industrial Property Association).

144. *Id.*

145. *Id.*

146. The Paris convention gives patent applicants a whole year to translate applications. If applicants change their minds and decides to file in Japan with only a few months remaining before a statutory bar, the time to prepare a translation is much shorter. *Id.*

147. The Omnibus Trade and Competitiveness Act of 1988, 19 U.S.C.S. §§ 2411-2420 (Law. Co-op. Supp. 1993).

148. Nancy J. Linck & John E. McGarry, *Patent Procurement and Enforcement in Japan—A Trade Barrier*, 27 GEO. WASH. J. INT'L L. & ECON. 411 (1993).

149. Marjorie A. Minkler, Note, *The Omnibus Trade Act of 1988, Section 301: A Permissible Enforcement Mechanism or a Violation of the United States' Obligations Under International Law?*, 11 U. PITT. J.L. & COM. 283 (1992) (quoting Shirley A. Coffield, *Using Section 301 of the Trade Act of 1974 as a Response to Foreign Government Trade Actions: When, Why and How*, 6 N.C. J. INT'L L. & COM. REG. 381 (1981)).

150. *See id.*

151. *Jobs Through Anti-Piracy*, *supra* note 6, at 47 (prepared statement of Ira S. Shapiro, General Counsel to the U.S. Trade Representative).

152. *See International Trade Hearing*, *supra* note 20, at 20 (statement of Sen. Rockefeller).

the dispute settlement mechanism adopted in the Uruguay Round Agreement precludes its use.¹⁵³

The Uruguay Round Agreement, however, does not preclude the use of section 301.¹⁵⁴ In addition, "[t]his action can be undertaken without threat of counter-retaliation" because the Uruguay Round Agreement provides for the possibility of dispute settlement and cross-retaliation for failure to meet obligations under that Agreement.¹⁵⁵ "The Special 301 provision of the Omnibus Trade and Competitiveness Act of 1988, which calls for identifying and seeking improvements for inadequate protection by our trading partners, is an important addition to the tools available for achieving the goal of improved intellectual property protection."¹⁵⁶

H.R. 1733 is the result of an agreement, concluded under the framework of Special 301,¹⁵⁷ between U.S. Commerce Secretary Ron Brown and Japanese Ambassador Takakazu Kuriyama. It is the second of two agreements.¹⁵⁸ With this second agreement, "[w]e're getting provisions we've been seeking a long time."¹⁵⁹ According to some, "[t]his will have a big market-opening effect."¹⁶⁰

The first agreement called for Japan to permit filing of patent applications in English by July 1, 1995, and to allow for correction of translation errors during examination and after grant. In return, the United States agreed to introduce legislation to provide a twenty-year U.S. patent term, measured from the earliest non-

153. *Jobs Through Anti-Piracy*, *supra* note 6, at 46-47 (prepared statement of Ira S. Shapiro, General Counsel to the U.S. Trade Representative).

154. *Id.* at 47.

155. *Id.* at 46-47.

156. *Id.* at 61-62 (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks).

157. *USTR Announcement on Foreign Government Procurement (Title VII) and Intellectual Property Protection (Special 301) Executive Office of the President Office of the United States Trade Representative Washington, D.C. 20506*, 12 Int'l Trade Rep. (BNA) No. 18, at 791 (May 3, 1995), available in LEXIS, News Library, CURNWS File [hereinafter *USTR Announcement*].

158. *Patents, House Panel Hears Debate on Whether Reforms will Help or Hurt Patent Holders*, Daily Rep. for Executives (BNA), at A214 (Nov. 6, 1995)[hereinafter *House Panel Hears Debate*].

159. Riordan, *supra* note 8, at D1 (statement of Bruce Lehman, Commissioner of Patents and Trademarks).

160. *Id.*

provisional U.S. filing date.¹⁶¹ Congress introduced this legislation in May 1994 and enacted it in December 1994.¹⁶² As of July 1995, Japanese law permits English at the Japanese Patent Office.¹⁶³

Under the second agreement, Japan agreed to end third party pre-grant opposition by April 1, 1995, and to establish an optional thirty-six month accelerated examination procedure by January 1996.¹⁶⁴ In return, the U.S. Patent Office agreed to publish applications within eighteen months from the earliest filing date, and to allow expanded opportunities for third party objections in re-examination proceedings.¹⁶⁵ Japan also agreed to stop awarding "dependent patent compulsory licenses," beginning July 1, 1995.¹⁶⁶

This year, the United States again placed Japan on a "priority watch list" under the provisions of Special 301 for its narrow scope and interpretations of claims.¹⁶⁷ Nevertheless, the United States and Japan have not reached any conclusive agreements over this issue.¹⁶⁸ "This practice has severely limited the ability of U.S. patent holders . . . to acquire exclusive rights comparable to those available to Japanese patent holders in the United States."¹⁶⁹

Although changes in the Japanese Patent Office would bring gains to U.S. applicants filing there, the United States should not obtain these changes by debasing U.S. patent law. "Patents are, and have been the engine of our technological leadership."¹⁷⁰ The United States is a world leader in the number of influential patents it has issued.¹⁷¹ In 1993, it issued almost twice as many

161. *House Panel Hears Debate*, *supra* note 158.

162. *Uruguay Round Agreements Act*, *supra* note 112.

163. *Intellectual Prop. Subcommittee Hearing*, *supra* note 45 (statement of Rep. Moorhead).

164. *U.S., Japan Sign Patents Accord*, AFX News, Aug. 17, 1994, available in LEXIS, News Library, Non-US File [hereinafter *Patents Accord*].

165. *Id.*; see also Riordan, *supra* note 8, at D1.

166. Laurent Belsie, *US, Japan Patent Laws Move Closer, Easing Filing Challenges*, CHRISTIAN SCI. MONITOR, Aug. 18, 1994, at 8. "Though rarely used today, in the past these measures have forced US inventors to license their technology to a Japanese competitor for a set amount of compensation." *Id.*

167. *USTR Announcement*, *supra* note 157.

168. Mark Magnier, *US, Japan End Patent Talks with Progress, But No Pacts*, J. COM., June 8, 1995, at A3.

169. *USTR Announcement*, *supra* note 157.

170. 138 CONG. REC. H7370 (daily ed. Aug. 4, 1992) (statement of Rep. Bentley).

171. *Id.* at H7371.

as Japan, Italy, the United Kingdom, France, and Germany.¹⁷² Based on this fact, the United States should not rush to give up its system in favor of a system that is producing far fewer influential patents.¹⁷³ The United States should not, in an effort to remedy unfair trade practices, stray from the underlying policy that brings it prosperity.

4. Limited Impact to United States Applicants

Another argument that supports eighteen-month mandatory publication is that it would have a limited impact on U.S. applicants because the average pendency of a U.S. patent is nineteen-months.¹⁷⁴ This figure, however, can be misleading because it understates reality by including "follow-on" applications.¹⁷⁵ It may not take into account the filing date of the original application.¹⁷⁶

For example, consider a patent application that was originally filed in 1980. Continuing applications are filed in 1982, and 1984, and then the patent issues in 1986. The Patent Office counts the 1982 and 1984 refilings as two different applications. Thus a process that took effectively six years is counted as three applications averaging two years each.¹⁷⁷

This can lead to higher pendencies on the more significant patents not being included in the statistics. Patents involved in litigation, which are arguably more significant, have a higher total pendency. The total pendency, as measured from the earliest U.S.

172. Helen Delich-Bentley, *Patent System at Risk*, Cong. Press Releases (Aug. 11, 1994). "In 1993 the United States led the world in influential patents with 59,588" *Id.*

173. 138 CONG. REC. H7371 (daily ed. Aug. 4, 1992) (statement of Rep. Bentley). The United States has produced 104,541 influential patents. Japan has produced 76,984 influential patents. Germany, France, Belgium, Sweden, Great Britain, Canada, Italy, Switzerland, the Netherlands, U.S.S.R., South Korea, and Taiwan together have produced 50,365 influential patents. *Id.*

174. *Prepared Testimony of Paul B. Crilly, Ph.D. University of Tennessee Knoxville Before the House Committee on Judiciary Subcommittee on Courts and Intellectual Property Re: H.R. 359, or Why Not a Guaranteed Patent Term*, Fed. Info. Sys., Nov. 1, 1995, available in LEXIS, News Library, CURNWS File [hereinafter *Crilly Testimony*] (stating that PTO Commissioner Bruce Lehman testified that the average pendency was nineteen months).

175. Banner & Kaltenheuser, *supra* note 107.

176. *Crilly Testimony*, *supra* note 174.

177. *Id.*

filing date, is thirty-six months.¹⁷⁸ Furthermore, certain industries could be disproportionately affected. For example, longer pendencies typically occur in genetics.¹⁷⁹ In this and other areas where inventors are breaking new ground, the Patent Office requires extra time to review a patent application.¹⁸⁰

Where inventors are breaking new ground, "the inventor must file broad claims in order to stake out what he has achieved."¹⁸¹ Because the applicant must find an examiner who can understand a technology that she or he has not previously seen, "such broad claims are frequently contested at length before allowance is given."¹⁸²

Although publication at eighteen months would not affect some applicants, the potential to affect all applicants exists. Therefore, even though publication at eighteen months statistically gives the impression of limited impact, every applicant must consider the risk that his or her individual application may take longer than eighteen months. Each applicant also must consider the risk of ultimately having to withdraw their application, in order to preserve a trade secret,¹⁸³ in light of the cost of securing a

178. Miller, *supra* note 105, at 730. Those patents the U.S. district courts reported to the Patent and Trademark Office during the six weeks prior to October 1991 served as the measurement for the average gross pendency. *Id.*

179. See 139 CONG. REC. S1789, S1795 (daily ed. Feb. 18, 1993) (statement of Edmund L. Andrews).

So far, the gene patents have moved much more slowly than applications for other types of inventions. While the average application now takes 18 months to reach a final decision, the three mice patents that were issued Dec. 29[, 1992] had all been pending for about four years.

Patent Office officials said they did not impose a formal moratorium on transgenic animals. "These things just take a long time to work through," Oscar Mastin, a spokesman for the agency, said. "They have been working on these applications the whole time."

Id.

180. See generally *Patent and Trademark Office Issues First Animal Patent*, 35 Pat. Trademark & Copyright J. (BNA) No. 876, at 508 (April 14, 1988) (Donald J. Quigg, Commissioner of Patents and Trademarks, acknowledging the long pendency period of three to four years for non-naturally occurring non-human multicellular living organisms subject matter, noting that the PTO has had difficulty recruiting examiners in this new area of science).

181. *Hill Testimony*, *supra* note 68.

182. *Id.*

183. See *supra* part III.A.1.

patent.¹⁸⁴ This uncertainty could diminish the incentive to seek patent protection.

In addition, small businesses strongly oppose the move toward mandatory publication.¹⁸⁵ Small inventors fear that this change will affect them negatively.¹⁸⁶ If the change truly would have a limited impact on U.S. inventors, small businesses and other similarly situated sectors would not be strenuously opposed to mandatory publication.¹⁸⁷

5. Conformity with the Rest of the World

Proponents for eighteen-month mandatory publication argue the need for conformity with the rest of the world as a reason for change.¹⁸⁸ Almost all major countries publish applications at eighteen months. In those countries, however, mandatory publication at eighteen months may be a *necessary* mechanism to provide inventors with stimulating ideas.

Delays are more the rule than the exception around the globe.¹⁸⁹ For example, in the European Patent Office, obtaining an electronics patent takes five to six years and a biotechnology patent takes four years.¹⁹⁰ In Switzerland, obtaining a patent can take six years¹⁹¹ and in Japan the average pendency for a patent is six to seven years.¹⁹² Under these circumstances, publication

184. Patent applications range from \$2,500 to \$50,000. Vito J. DeBari, *International Harmonization of Patent Law: A Proposed Solution to the United States' First-to-File Debate*, 16 FORDHAM INT'L L.J. 687, 703 n.136 (1993) (quoting Ned L. Conley, *First-To-Invent: A Superior System For the United States*, 22 ST. MARY'S L.J. 779, 783 (1991)). Even the courts have noted that "[p]atent applications are expensive." *Paulik v. Ritzkalla*, 760 F.2d 1270, 1283 (Fed. Cir. 1985) (Markey, C.J., concurring).

185. The management of the National Manufacturers Association proposed the Patent Harmonization Act of 1992. *Patent System Harmonization Act*, *supra* note 13.

186. See *supra* part III.A.2.

187. See generally 140 CONG. REC. H9879 (daily ed. Sept. 27, 1994) (statement of Rep. Bently claiming first hand knowledge that American small business inventors will shut down this change); see also *Patent Harmonization Proposal Stirs Lively Debate at PTO Hearing*, 46 Pat. Trademark & Copyright J. (BNA) No. 1150, at 508 (Oct. 14, 1993) (witnesses from the small-inventor community voiced outright opposition to the publication proposal).

188. See, e.g., Ragusa, *supra* note 84, at 167-68.

189. *Japanese Patent Policy Hearing*, *supra* note 6, at 74 (testimony of Karl F. Jorda, Corporate Counsel, CIBA-GEIGY Corporation).

190. *Id.*

191. *Id.*

192. *International Trade Hearing*, *supra* note 20, at 26 (statement of Dr. Allen I. Mendelowitz).

of the application at eighteen months might be the only way to disclose information to the public in a timely fashion. Because the United States has lower pendency periods, the requirement for publication is not imperative.

Additionally, other countries may have other procedural or policy reasons for the mandatory eighteen-month publication. Japan is one such example. Long pendency periods due to deferred examination,¹⁹³ coupled with mandatory disclosure, allow the Japanese Patent Office to reduce its workload by eliminating applications to which it should not grant a patent.¹⁹⁴ This was accomplished by allowing pre-grant opposition in conjunction with publication.¹⁹⁵ The Japanese Patent Office has a growing backlog of applications.¹⁹⁶ Although the Japanese Patent Office has added more patent examiners in the past years, the small increase in the number of examiners has been insufficient to lower the average pendency.¹⁹⁷ Therefore, mandatory disclosure may be necessary in a system with insufficient staff to help "flush out" applications to which it should not grant a patent. In contrast, the United States has an adequate number of examiners to perform this function.¹⁹⁸

193. Under the Japanese system, the Patent Office can defer examination of the application until the applicant requests. See Jeffrey A. Wolfson, *Patent Flooding in the Japanese Patent Office: Methods for Reducing Patent Flooding and Obtaining Effective Patent Protection*, 27 GEO. WASH. J. INT'L L. & ECON. 531, 544 (1993).

194. See *Japanese Patent Policy Hearing*, *supra* note 6, at 65 (statement of Alan D. Lourie, Vice President, Corporate Patents & Trademarks, SmithKline Beckman Corporation).

195. *Id.*

196. *Id.* at 23 (statement of Michael K. Kirk, Assistant Commissioner for External Affairs, Patent and Trademark Office).

197. See *generally id.* at 29 (statement of Michael K. Kirk, Assistant Commissioner for External Affairs, Patent and Trademark Office) (contrasting the effort by the Japanese Patent Office with the much larger addition of examiners by the United States Patent Office).

198. *Id.*

IV. CONCLUSION

The United States should not implement eighteen-month mandatory disclosure. The U.S. patent system has made the United States a great country and is critical to maintaining U.S. industrial strength.¹⁹⁹ The United States should not abandon the underlying policy values that facilitated its economic growth. Mandatory publication at eighteen months will discourage use of the patent system. Protection of trade secrets and the incentive to use the U.S. patent system should continue as they exist under current law.

Rather than an eighteen-month mandatory publication policy, the United States should give inventors access to information that is public in foreign countries. To achieve this, the U.S. government should provide translations of foreign patent applications to inventors. If the United States needs a change in policy to serve as a bargaining chip in international negotiations, it should instead implement a two-track patent application method and publish only those U.S. applications that inventors also file abroad. This method would allow all U.S. inventors access to information contained in internationally filed applications while maintaining trade secrets for solely domestic applications. Using mandatory publication as a bargaining chip, however, is unwise in light of the cost to independent inventors, small companies, and the long range competitiveness of the United States.

The recent changes in patent terms have mitigated the threat of improperly motivated submarine patents, which already was insignificant. The United States should not seek international conformity at the expense of reducing the strength of the U.S. patent system. Although mandatory publication would not affect

199. 140 CONG. REC. H7967 (daily ed. Aug. 11, 1994) (statement of Rep. Bently).

In the early 1900's the government of Japan wanted to determine what made the United States such an industrial power. A team of investigators was dispatched to determine why America was so successful and the team concluded it was the patent system.

The official report stated:

"We looked about us to see what nations are the greatest, so that we can be like them We said, what is it that makes the United States such a great Nation? We investigated and found that it was patents, and we will have patents."

In the early 1980's Japan again determined the patent system was critical to America's industrial strength.

Id.

inventors who receive their patents prior to eighteen months, its *potential* to affect each applicant creates an uncertainty that reduces the incentive to seek patent protection.

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