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International Harmonization of Patent Law: A Proposed Solution to the United States' First-to-File Debate

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Vito J. DeBari

Abstract

As trade barriers diminish and global economies continue to expand, harmonization and enforcement of international patent protection becomes increasingly important. This note compares the U.S. system with other countries. It argues that the U.S. should harmonize with the rest of the world. Part I discusses the different systems for determining priority of invention and the recent movement towards harmonization of patent law. Part I also sets forth the recommendations of the 1992 Advisory Commission on Patent Law Reform relating to first-to-file. Part II presents the various conflicting arguments both in favor of and against adopting a first-to-file system. Part III argues that the United States should adopt a first-to-file system under the conditions specified in the 1992 Report From the Advisory Commission on Patent Law Reform. This Note concludes that the Commission Report presents a favorable solution to the first- to-file debate that will allow the United States to participate in and benefit from the forthcoming patent harmonization treaty.

INTERNATIONAL HARMONIZATION OF PATENT LAW: A PROPOSED SOLUTION TO THE UNITED STATES' FIRST-TO-FILE DEBATE

INTRODUCTION

As trade barriers diminish and global economies continue to expand, harmonization and enforcement of international patent protection becomes increasingly important. Adequate and effective international patent protection is an important factor toward the development of domestic industries, the stimulation of foreign investment, and the enhancement of free and fair trade.¹ In the United States, strong international patent protection will encourage inventors to expand their markets globally and will reduce the substantial costs associated with obtaining such protection and enforcing against its infringement.² The U.S. system of patent protection, however, differs significantly from those of other countries throughout the world.³ This difference may impede the United States' participation in patent law harmonization.⁴

When two or more inventors in the United States wish to obtain a patent on the same invention, the United States Patent and Trademark Office (the "Patent Office") awards the patent to the person who is the first inventor, regardless of who actually files a patent application first.⁵ This system of determining priority of invention is known as the "first-to-invent" system, and has been used by the Patent Office for over 150 years.⁶ Nearly every other country in the world utilizes a "first-to-file" system, which establishes priority of invention on the basis of the earliest effective filing date of a patent application

1. THE ADVISORY COMMISSION ON PATENT LAW REFORM, A REPORT TO THE SECRETARY OF COMMERCE 3 (1992) [hereinafter COMMISSION REPORT].

2. See Bernarr R. Pravel, *Why the United States Should Adopt the First-to-File System For Patents*, 22 ST. MARY'S L.J. 797 (1991) (discussing benefits of patent law harmonization).

3. 2 J.W. BAXTER, *WORLD PATENT LAW AND PRACTICE* 14-2 (1992)

4. COMMISSION REPORT, *supra* note 1, at 11.

5. 35 U.S.C. §§ 101, 102(g) (1988) (setting out what constitutes patentable inventions and how priority of invention is determined when more than one inventor seeks patent for invention).

6. Patent Act of 1836, ch. 357, § 6, 5 Stat. 117, 119 (formally establishing patent statutes that award patents on basis of priority of invention).

disclosing and claiming an invention.⁷

The issue of whether the United States should adopt a first-to-file system has been the subject of debate for many years.⁸ The debate recently has intensified, however, in light of the proposed adoption of an international patent harmonization treaty⁹ ("Draft Treaty") that provides for a first-to-file system of determining priority.¹⁰ The United States' participation in such a treaty is contingent upon abandonment of its current first-to-invent system and adoption of a first-to-file system.¹¹ This requirement has caused commentators and practitioners to question whether participation in the harmonization treaty is worth the price of converting to a first-to-file system.¹²

An Advisory Commission on Patent Law Reform ad-

7. COMMISSION REPORT, *supra* note 1, at 43. Jordan and the Philippines are the only countries other than the United States that currently retain a first-to-invent system. *Id.* at 43 n.2. Canada replaced its first-to-invent system with a first-to-file system in 1989. *Id.*

8. *Id.* at 43. In 1966, the President's Commission on the Patent System, which was appointed by President Lyndon Johnson, directly addressed this issue and recommended that the United States adopt a first-to-file system. *Id.* at 43 n.3.

9. Draft Treaty Supplementing the Paris Convention for the Protection of Industrial Property as far as Patents Are Concerned, U.N. W.I.P.O., U.N. Doc. PLT/DC/3 (1990) [hereinafter Draft Treaty]. The first session of the Diplomatic Conference for the Draft Treaty was held at the Hague from June 3 to June 21, 1991. REPORT ON THE DIPLOMATIC CONFERENCE FOR THE CONCLUSION OF A TREATY SUPPLEMENTING THE PARIS CONVENTION AS FAR AS PATENTS ARE CONCERNED I (1991) [hereinafter CONFERENCE REPORT] (available from U.S. Patent and Trademark Office). The second and final session has been scheduled to be held July 12, 1993 in Geneva, Switzerland. *ABA Address by Former Commissioner Manbeck*, [May-Oct.] Pat. Trademark & Copyright J. (BNA) No. 1096, at 468 (Sept. 3, 1992).

10. See Draft Treaty, *supra* note 9, art. 9 (providing for award of priority of invention based on first-to-file).

11. COMMISSION REPORT, *supra* note 1, at 43.

12. See Ned L. Conley, *First-To-Invent: A Superior System For the United States*, 22 ST. MARY'S L.J. 779 (1991) (arguing that United States should stay with its current first-to-invent system); Donald R. Dunner, *First to File: Should Our Interference System be Abolished?*, 68 J. PAT. OFF. SOC'Y 561 (1986) (concluding that United States should join rest of world in adopting first-to-file system); Charles R.B. Macedo, *First-To-File: Is American Adoption of the International Standard in Patent Law Worth the Price?*, 18 AM. INTELL. PROP. L. ASS'N Q.J. 193 (1990) (concluding that United States should consider adopting first-to-file system if favorable harmonization treaty is reached); Bernard R. Pravel, *Why the United States Should Adopt the First-To-File System For Patents*, 22 ST. MARY'S L.J. 797 (1991) (arguing that United States should adopt first-to-file system); see also William T. Fryer, III, *Patent Law Harmonization Treaty Decision is Not Far Off—What Course Should the U.S. Take?: A Review of the Current Situation and Alternatives Available*, 30 IDEA: J. L. & TECH. 309 (1990) (cautioning that harmonization treaty should have enough significant benefits to United States before it considers adhering to it and adopting first-to-file system).

dressed several harmonization-related issues in a report presented to the U.S. Secretary of Commerce on September 14, 1992.¹³ One of those issues concerned whether the United States should adopt a first-to-file system of priority.¹⁴ In the report, the Commission recommended that the United States adopt a first-to-file system.¹⁵ Such an adoption would be contingent upon completion of a global patent law harmonization treaty that would provide an overall benefit to U.S. interests.¹⁶

This Note argues that the United States should adopt a first-to-file system that will enable it to participate in the proposed harmonization treaty, under the conditions specified in the report from the 1992 Advisory Commission on Patent Law Reform ("Commission Report"). Part I discusses the different systems for determining priority of invention and the recent movement towards harmonization of patent law. Part I also sets forth the recommendations of the 1992 Advisory Commission on Patent Law Reform relating to first-to-file. Part II presents the various conflicting arguments both in favor of and against adopting a first-to-file system. Part III argues that the United States should adopt a first-to-file system under the conditions specified in the 1992 Report From the Advisory Commission on Patent Law Reform. This Note concludes that the Commission Report presents a favorable solution to the first-to-file debate that will allow the United States to participate in and benefit from the forthcoming patent harmonization treaty.

I. PRIORITY OF INVENTION AND PATENT LAW HARMONIZATION

The United States' system of determining priority of invention between two or more inventors is unlike the system used by most other countries.¹⁷ This distinction is one of the main issues in controversy in the development of an interna-

13. COMMISSION REPORT, *supra* note 1, at 11. This Commission was established in 1990 by the Secretary of Commerce. *Id.* at i; see *Patent and Trademark Office: Patent Advisory Commission Urges Fundamental Patent Law Reforms*, [May-Oct.] Pat. Trademark, & Copyright J. (BNA) No. 1097, at 490 (Sept. 17, 1992) (discussing COMMISSION REPORT and recommendations).

14. COMMISSION REPORT, *supra* note 1, at 11.

15. *Id.*

16. *Id.*

17. See *id.* at 43 (discussing how other countries utilize first-to-file system).

tional patent law harmonization treaty, and appears to be the determining factor as to whether the United States will participate in such a treaty.¹⁸ In light of these developments, the Advisory Commission on Patent Law Reform agreed to study many of the issues related to the worldwide harmonization of patent laws as part of its broader study of the U.S. patent system.¹⁹ The Commission specifically addressed whether the United States should change its system of determining priority to conform with that of the rest of the world.²⁰

A. Different Systems for Determining Priority of Invention

The first-to-invent system of priority used by the United States allows an inventor who has not abandoned, suppressed, or concealed his invention to obtain a patent against another person who filed a patent application first if the original inventor can prove that he was the first to invent the particular invention.²¹ To prove priority of invention, inventors must prove that they were the first to conceive the invention and the first to reduce it to practice.²² Alternatively, if they were not the first to reduce the invention to practice, they must prove that they were the first to conceive it and that they were diligent in reducing the invention to practice from a point in time prior to another inventor's conception of it.²³ If there is a dis-

18. See CONFERENCE REPORT, *supra* note 9, at 14 (commenting on results of First Session of Diplomatic Conference).

19. COMMISSION REPORT, *supra* note 1, at 11.

20. *Id.* at 11-12.

21. 35 U.S.C. § 102(g) (1988). This section of the patent statutes provides that A person shall be entitled to a patent unless

...

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Id.

22. *Id.*

23. *Id.* Reduction to practice can be "actual" or "constructive." Actual reduction to practice is a physical construction of the invention, and constructive reduction to practice is the filing of a U.S. patent application. See PATENT AND TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE ch. 715.07 (5th ed., 13th rev. Nov. 1989) [hereinafter MPEP]. Both forms are acceptable by the Patent Office for the purposes of determining priority of invention. *Id.* Also, under

pute as to who the first inventor is, the process of determining priority of invention is accomplished through an "interference proceeding" before the Patent Office Board of Patent Appeals and Interferences (the "Board of Appeals").²⁴ After a decision by the Board of Appeals, dissatisfied parties may appeal to the United States Court of Appeals for the Federal Circuit,²⁵ or they may bring a civil action.²⁶

In contrast, nearly every other country in the world utilizes a first-to-file system that establishes priority on the basis of the first effective filing date of a patent application.²⁷ The only countries other than the United States who are currently utilizing a first-to-invent system are Jordan and the Philippines.²⁸ In addition, legislation pending in the Philippines will introduce a first-to-file system there.²⁹ Canada had been the last democratic, capitalistic, developed nation other than the United States to use a first-to-invent system.³⁰ In 1989, however, Canada followed the rest of the world and converted to a first-to-file system.³¹

the patent statute, the inventive acts used to establish priority must occur in the United States. 35 U.S.C. § 102(g) (1988); see MPEP, *supra*, ch. 715.07.

24. 35 U.S.C. § 135(a) (1988); see MPEP, *supra* note 23, ch. 1100; see also RONALD B. HILDRETH, *PATENT LAW: A PRACTITIONER'S GUIDE* 107-15 (1988) ("An interference is frequently an expensive and extensive proceeding . . . before the United States Patent and Trademark Office for determining who is the prior inventor of the same invention, i.e., which inventor should be awarded priority."). An interference is a relatively complex trial-like procedure in which the parties are permitted to take testimony, produce documents, etc. before the Patent Office Board of Patent Appeals and Interferences in order to establish inventive acts which will prove who among the parties has the earliest date of invention. Pravel, *supra* note 12, at 798. As a result of an interference proceeding, the length of time for prosecuting the patent applications involved is extended by the length of time it takes to resolve the interference. *Id.*

25. 35 U.S.C. § 141 (1988) (allowing applicants dissatisfied with decision of Board of Appeals to appeal to United States Court of Appeals for the Federal Circuit).

26. 35 U.S.C. § 146 (1988) (allowing party to interference dissatisfied with decision of Board of Appeals to have remedy by civil action).

27. See *supra* note 7 (discussing only countries that currently still use first-to-invent system).

28. COMMISSION REPORT, *supra* note 1, at 43 n.2.

29. *Id.*

30. *Id.*

31. Canadian Patent Act of Nov. 19, 1987, R.S.C. ch. P-4 (1988); see Robert A. Wilkes, *The Canadian Viewpoint: A New Perspective Bridging the First-to-Invent and First-to-File Worlds*, 18 AM. INTELL. PROP. L. ASS'N Q.J. 18 (1990) (comparing Canada's newly adopted first-to-file patent system to previously existing first-to-invent system).

In 1966, the U.S. Presidential Commission on the Patent System extensively studied the U.S. patent system and made thirty-five specific recommendations for significant changes in U.S. patent practice.³² The recommendations included the adoption of a first-to-file system.³³ Such a system was supported by the Patent Office and subsequently considered by the U.S. Congress.³⁴ Widespread opposition from industry and legal associations led Congress to reject the first-to-file system.³⁵ Commentators and practitioners who opposed adopting a first-to-file system argued that a first-to-invent system was inherently more fair than a first-to-file system because it awards the patent to the true inventor and it gives both large and small entities the incentive to innovate.³⁶ The few commentators who favored a first-to-file system argued that it was much more efficient than the first-to-invent system because of the availability and decisiveness of the application filing date.³⁷ Although dormant for nearly twenty-five years, the debate over whether the United States should adopt a first-to-file system recently has gained intensity because of increased efforts to harmonize international patent law.³⁸

B. *Movement Toward International Harmonization of Patent Law*

International harmonization of patent law will simplify and expedite an inventor's ability to obtain worldwide patent protection and will strengthen such protection once granted.³⁹

32. COMMISSION REPORT, *supra* note 1, at 5.

33. *Id.*

34. S. 1691, 90th Cong., 1st Sess. (1967); H.R. 5924, 90th Cong., 1st Sess. (1967); See George E. Frost, *The 1967 Patent Law Debate—First-to-Invent vs. First-to-File*, 1967 DUKE L.J. 923 (1967).

35. See Frank Pugsley, *President's Statement on Patent Revision Before House Committee*, 1967 AM. PAT. L. ASS'N BULL. 281 (American Patent Law Association was precursor of American Intellectual Property Law Association); 22 CONG. Q. WKLY. REP. 932 (June 2, 1967) (statement of Edward F. McKie, Jr., Chairman-Elect of American Bar Association's Section on Patent, Trademark and Copyright Law).

36. See, e.g., Frost, *supra* note 34, at 926-29 (discussing advantages of first-to-invent system in comparative analysis of first-to-file and first-to-invent systems); Conley, *supra* note 12, at 782-85 (discussing advantages of first-to-invent system).

37. See Frost, *supra* note 34, at 925-26 (discussing advantages of first-to-file system).

38. See COMMISSION REPORT, *supra* note 1, at 43 (discussing how due to harmonization efforts, first-to-file has again become dominant issue in discussions regarding patent law reform).

39. CONFERENCE REPORT, *supra* note 9, at 12.

The major advantages associated with international harmonization of patent law include reduced costs in obtaining patent protection internationally, the reduction of costs associated with defending a patent, better enforcement of patent protection worldwide, and general simplification of patent rules.⁴⁰ Efforts towards international harmonization of patent law began in 1984 under the direction of the World Intellectual Property Organization (the "WIPO").⁴¹ Since that time, the WIPO has convened a committee of experts in numerous meetings with the objective of drafting a treaty for the international harmonization of patent law.⁴² U.S. government and private sector officials have participated actively throughout these discussions, which culminated in 1990 with a Draft Treaty for patent law harmonization.⁴³

The Draft Treaty was reviewed in June 1991 during the first session of a diplomatic conference to discuss the harmonization treaty.⁴⁴ The second and final session of the conference is scheduled to be held from July 12 to July 30, 1993.⁴⁵ Although no decisions were made at the first session, many of the provisions of the treaty were discussed.⁴⁶ One of the main issues remaining unresolved is the question of whether the United States will convert to a first-to-file system as the proposed treaty requires.⁴⁷ As a result of U.S. resistance to

40. See Macedo, *supra* note 12, at 229-30 (discussing advantages of international harmonization).

41. Convention Establishing the World Intellectual Property Organization, July 14, 1967, 21 U.S.T. 1770, 828 U.N.T.S. 3. The World Intellectual Property Organization [hereinafter WIPO] is a specialized organ of the United Nations that is responsible for intellectual property matters and is charged with the administration of international intellectual property conventions. *Id.* The objectives of the WIPO are "to promote the protection of intellectual property throughout the world through cooperation among States and, where appropriate, in collaboration with any other international organization," and "to ensure administrative cooperation among the Unions." *Id.* art. 3, 21 U.S.T. at 1772, 828 U.N.T.S. at 11.

42. CONFERENCE REPORT, *supra* note 9, at 1.

43. Draft Treaty, *supra* note 9.

44. See CONFERENCE REPORT, *supra* note 9, at 1 (discussing first session of WIPO Diplomatic Conference held at The Hague).

45. Edward G. Fiorito, *Analysis of Selected Recommendations of Advisory Commission on Patent Law Reform*, [May-Oct.] Pat. Trademark & Copyright J. (BNA) No. 1097, at 502 (Sept. 17, 1992) (discussing second session of WIPO Diplomatic Conference).

46. See CONFERENCE REPORT, *supra* note 9, at 4-12 (discussing each Draft Treaty article that was considered during first session).

47. *Id.* at 12.

adopting a first-to-file system, other countries objected to many of the provisions of the Draft Treaty that had been included as accommodations for particular features of U.S. patent law.⁴⁸ Indeed, some countries suggested that those provisions be removed entirely from the Draft Treaty.⁴⁹

Some of the provisions in the Draft Treaty that would directly affect U.S. patent law if adopted by the United States are of particular importance to the priority of invention issue. One such provision provides for a first-to-file system of determining priority of invention.⁵⁰ Another provision, which is the result of the efforts of U.S. negotiators in the WIPO patent law harmonization committee meetings, mandates that all patent systems subject to the Draft Treaty recognize an international grace period for allowing an applicant to file a patent application.⁵¹ This provision allows an inventor to file an application within twelve months after public disclosure of his invention without affecting the patentability of his invention.⁵² The grace period incorporated into the Draft Treaty extends only to acts of public disclosure made by the inventor or another party who obtains the disclosed information directly or indirectly from the inventor.⁵³ Therefore, the grace period does not apply if a third party independently discloses the invention to the public.⁵⁴

Another provision that is of particular importance to the first-to-file issue is the prior user rights provision.⁵⁵ This provision provides a limited defense against patent infringement claims to a person who, in good faith, for the purposes of his enterprise or business, before the filing date of the patent application, was using the invention or making substantial prepa-

48. *Id.*

49. *Id.*

50. *See* Draft Treaty, *supra* note 9, art. 9.

51. *Id.* art. 12. This provision provides for an international grace period that allows certain disclosures of an invention without affecting its patentability. *Id.*

52. *Id.*

53. *Id.*

54. *Id.*

55. *Id.* art. 20. The prior user rights provision of the Draft Treaty enables a prior user of a patented invention to raise a defense to a claim of patent infringement if certain specified conditions are met. *Id.* One of the conditions requires that the prior user must have, in good faith, used the invention or made serious preparations for use of the invention before the effective filing date of the application for the patent that claims the invention. *Id.*

ration for such use.⁵⁶ Thus, the "prior user" will have the right to continue using the invention, for the purposes of the user's enterprise or business, despite the existence of another's patent.⁵⁷

Other provisions relating to the first-to-file issue concern the publication of the patent application⁵⁸ and the twenty-year patent term.⁵⁹ The Draft Treaty also recognizes a "doctrine of equivalents,"⁶⁰ which provides for an equitable determination of the scope of patent protection on the basis of numerous factors rather than relying solely on the literal words of the patent claims.⁶¹ Few other countries besides the United States currently recognize such a doctrine in their patent systems.⁶²

At the conclusion of the first session of the diplomatic conference, the prospect of U.S. participation in the proposed harmonization treaty had become more remote than before the conference was held.⁶³ Unless the United States is willing to adopt a first-to-file system, it is unlikely that the other participants in the treaty negotiations will permit inclusion of provisions that the United States is seeking.⁶⁴ Without these provisions, the United States will not have any incentive to participate in the proposed harmonization treaty.⁶⁵ In addition, it is

56. *Id.*

57. *Id.*

58. *Id.* art. 15. This provision requires publication of the patent application after 18 months from the effective filing date. *Id.*

59. *Id.* art. 22. This provision provides for a 20-year patent term starting from the filing date of the application on which the patent is granted. *Id.*

60. See *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950). The test for the "doctrine of equivalents" in the United States, promulgated in *Graver Tank*, is whether the defendant's invention "performs substantially the same function in substantially the same way to obtain [substantially] the same result" as the patentee's invention. *Id.*

61. Draft Treaty, *supra* note 9, art. 21. This provision of the Draft Treaty provides that claims are to be interpreted in light of the description and drawings, and shall not be interpreted as being confined to their strict literal meaning. *Id.* In addition, the provision provides that an element shall be considered as being equivalent to one expressed in a claim if (i) the element performs substantially the same function in substantially the same way and produced substantially the same result as the element expressed in the claim, or (ii) it is obvious to one skilled in the art that the same result as that achieved by means of the element as expressed in the claim can be achieved by means of the equivalent element. *Id.*

62. Pravel, *supra* note 12, at 807.

63. See CONFERENCE REPORT, *supra* note 9, at 14.

64. *Id.*

65. *Id.*

likely that other countries who have an interest in these provisions will also hesitate to participate in any resulting treaty, thus diminishing the prospect of patent law harmonization.⁶⁶

C. *The 1992 Report from the Advisory Commission on Patent Law Reform*

Recent efforts towards global harmonization of patent laws have increased U.S. interest in examining its own patent system to determine its effectiveness and consistency with evolving international norms.⁶⁷ As a result, in 1990 the Secretary of Commerce formed an Advisory Commission to examine the need for any reform of the U.S. patent system.⁶⁸ On September 14, 1992, after a series of meetings and a period of public comment, the Chairman of the Commission presented a 200-page report to the Secretary of Commerce addressing fifteen broad issues and making specific recommendations regarding each issue.⁶⁹ The Commission recommended that the United States adopt a first-to-file system contingent upon reaching a global patent law harmonization treaty that, on balance, provides an overall benefit to U.S. interests.⁷⁰ Adoption of the first-to-file system would be subject to certain conditions that would provide a simple and inexpensive means for establishing priority of invention.⁷¹ Such conditions would also make it easier for all inventors to gain access to the patent system.⁷²

66. COMMISSION REPORT, *supra* note 1, at 43.

67. Fiorito, *supra* note 45, at 502.

68. COMMISSION REPORT, *supra* note 1, at 5. The Commission consisted of representatives from large and small U.S. businesses, universities, the patent bar, the antitrust bar, and the public. *Id.* The Commission also sought extensive public input through the use of open meetings, invitations for public comment, and discussions with bar and industry groups and private individuals. *Id.*

69. *See id.* at 11-15. The issues addressed by the Commission are divided into three major categories. *Id.* The first category concerns harmonization-related issues. *Id.* at 11-12, 41-71. The second category concerns patent enforcement-related issues, including problems of modern civil litigation and the cost of enforcing patent rights. *Id.* at 13-15, 73-142. The third category deals with unique issues facing the patent systems which represent areas of significant public interest that are independent of the questions of harmonization or efficiency of defining and enforcing patent rights. *Id.* at 17-18, 143-96.

70. *Id.* at 44.

71. *Id.* at 11.

72. *Id.*

1. The Provisional Application

One of the conditions specified by the Commission involves the adoption of a low-cost, simplified provisional patent application.⁷³ Under the current U.S. patent application procedure, the patent application requires a specification with claims to define the invention,⁷⁴ any necessary drawings,⁷⁵ a formal oath or declaration for inventorship nomination,⁷⁶ and a filing fee.⁷⁷ The Patent Office assigns a filing date to a patent application even though it initially does not include an oath or declaration or the application filing fee.⁷⁸ The oath or declaration and the filing fee must be filed subsequently, however, within a time limit set by the Patent Office.⁷⁹ This oath or declaration and filing fee must be accompanied by the requisite surcharge for delayed filing.⁸⁰

As part of a U.S. first-to-file system, the Commission recommends that a provisional application procedure be adopted.⁸¹ This procedure would permit applicants to obtain early filing dates at reduced costs with minimum formal application requirements.⁸² The provisional application procedure would allow the Patent Office to assign a filing date to the provisional application before all the formal requirements of a complete application are actually met.⁸³ Therefore, the provi-

73. *Id.* at 44.

74. 35 U.S.C. § 112 (1988). The purpose of claims is to define the invention in such detail that the patent examiner and, later, prospective infringers can understand the scope of the claimed subject matter. ROBERT C. FABER, *LANDIS ON MECHANICS OF PATENT CLAIM DRAFTING* 1 (3d ed. 1990). Drafting of claims acceptable to the Patent and Trademark Office and which adequately describe and protect the invention can be a tedious and time-consuming process, and usually requires the assistance of a patent attorney or agent.

75. 35 U.S.C. § 113 (1988). The statute provides that "[t]he applicant shall furnish a drawing where necessary for the understanding of the subject matter sought to be patented." *Id.*

76. *Id.* §§ 25, 115 (requiring oath or declaration in lieu of oath).

77. *Id.* § 111.

78. 37 C.F.R. § 1.53(d) (1992) (providing that applicant who files application without oath or declaration or filing fee will be given period of time to file oath or declaration or filing fee and to pay surcharge in order to prevent abandonment of application).

79. *Id.*

80. *Id.*

81. COMMISSION REPORT, *supra* note 1, at 44.

82. *Id.* at 45.

83. *Id.*

sional application would allow inventors to claim a right of priority for a subsequently-filed complete application based on the filing date of the provisional application.⁸⁴

This low-cost provisional application would allow inventors to receive a filing date without including claims⁸⁵ to define the invention and without including a formal oath or declaration.⁸⁶ The provisional application, however, would have to satisfy existing statutory description and enablement requirements.⁸⁷ Submission of the oath or declaration and the claims would not be required until the inventor filed a complete application.⁸⁸ To preserve the original filing date, the completed application would have to be filed within twelve months of filing the first provisional application.⁸⁹ During this twelve-month period, the applicant could meet all regular application requirements by completing the missing elements of the provisional application.⁹⁰

If the previously filed provisional application already meets all the regular application requirements, the provisional application becomes a complete application when the applicant pays the regular filing fee.⁹¹ The applicant also has the option of consolidating one or more provisional applications filed for the same invention, during the twelve-month period, into one complete application.⁹² Under the provisional application scheme, applicants are entitled to claim priority for the subject matter disclosed in the complete application back to the filing date of the first provisional application that properly discloses that subject matter.⁹³

2. The Grace Period

Under current U.S. patent law, if an inventor publishes de-

84. *Id.* at 46.

85. *See supra* note 74 (discussing purpose of claims in patent application).

86. COMMISSION REPORT, *supra* note 1, at 45-46.

87. *Id.* Under 35 U.S.C. § 112, the applicant is required to adequately describe the invention in the specification of the application in a way that will enable any person skilled in the art to which the invention pertains to make and use the same invention. 35 U.S.C. § 112 (1988).

88. COMMISSION REPORT, *supra* note 1, at 46 n.8.

89. *Id.* at 46.

90. *Id.*

91. *Id.*

92. *Id.*

93. *Id.*

tails of his invention and then subsequently files a patent application for the invention, that publication will not bar the inventor from obtaining a patent in the United States, provided the patent application is filed within one year of the publication.⁹⁴ Furthermore, if a third party publishes a disclosure of the same invention within one year before the application filing date, that publication will not be a bar to obtaining a patent in the United States, provided the inventor provides an affidavit establishing a date of invention prior to the date of that disclosure.⁹⁵ The provision of a grace period in U.S. patent law is of extreme importance to the scientific community in facilitating early dissemination of research results without forfeiting the right to obtain a patent for inventions.⁹⁶ The grace period also protects entities that possess limited resources by allowing them to validate the commercial viability of an invention for a period of time after publication or public disclosure of the invention before making significant expenditures towards obtaining patent protection.⁹⁷

Few other countries provide inventors with grace period protection.⁹⁸ In most countries, any publication or disclosure of an invention, either by a third party or by the inventor before a patent application is filed, will result in denial of a patent.⁹⁹ This situation has caused many U.S. inventors to forfeit their patent rights inadvertently in most other countries when they publish or disclose their inventions before filing patent applications outside the United States.¹⁰⁰

94. 35 U.S.C. § 102(b) (1988) (barring patent protection for invention if it was patented or described in printed publication in United States or country outside United States or if it was in public use or on sale in United States more than one year prior to date of patent application).

95. See 37 C.F.R. § 1.131 (1992) (allowing submission of affidavit or declaration of prior invention to overcome cited patent or publication).

96. COMMISSION REPORT, *supra* note 1, at 47.

97. *Id.*

98. *Id.*

99. *Id.* For example, publication or public use in Great Britain prior to the filing date bars one from obtaining a patent in Great Britain. Patents Act of 1949, 12, 13 & 14 Geo. 6, ch. 87, § 32. The only other countries that independently apply any type of grace period protection are Belgium, Australia, Japan, Brazil and the former Soviet Union. See Karen M. Curesky, Note, *International Patent Harmonization Through W.I.P.O.: An Analysis of the U.S. Proposal To Adopt a "First-To-File" Patent System*, 21 LAW & POL'Y INT'L BUS. 289, 298 (1989).

100. COMMISSION REPORT, *supra* note 1, at 47.

The Commission recommends that if the United States adopts a first-to-file system, it should retain a public disclosure grace period.¹⁰¹ This grace period would allow an inventor to disclose an invention publicly without affecting its patentability, provided the invention is claimed in an application filed within twelve months of the disclosure.¹⁰² The grace period would apply to applications filed by an inventor either in the United States or in any other country that participates in the harmonization treaty.¹⁰³ The grace period would also apply to the inventor's application when publication of the invention is made by a third party who derives the invention either directly or indirectly from the original inventor.¹⁰⁴ Application of the grace period in this respect prevents attempts by third parties to "spoil" the patent rights of the true inventor.¹⁰⁵

3. Prior User Rights

Prior user rights provisions, which provide a limited defense against infringement claims, are common in many first-to-file systems.¹⁰⁶ These provisions are applied in situations where prior user defendants can establish commercial use, or substantial preparation for such use, of the patented invention before the effective filing date of the application for patent.¹⁰⁷ Although prior user rights are currently authorized in the Draft Treaty,¹⁰⁸ they do not exist in current U.S. patent law because they are not necessary.

In the United States, if a prior user is the first inventor and has not abandoned, suppressed, or concealed the invention, he or she can invalidate the later filed patent of another person who is claiming infringement.¹⁰⁹ In a first-to-file system, however, priority is based on the filing of the patent application.¹¹⁰ Thus, without a prior user right, a prior user is un-

101. *Id.*

102. *Id.*

103. *Id.*

104. *Id.* at 48.

105. *Id.*

106. *Id.*

107. *Id.*

108. Draft Treaty, *supra* note 9, art. 20.

109. See 35 U.S.C. § 102(g) (1988) (setting out standards for determining priority of invention); see *supra* note 21 (setting forth text of this section of statute).

110. Frost, *supra* note 34, at 925.

able to continue using the independently developed invention if someone else obtains a patent for the same invention.¹¹¹ With a prior user right, if prior users can establish sufficient pre-filing activity, they will be permitted to continue such use despite the presence of another's patent, subject to specific limitations on the extent of that use.¹¹² One such limitation involves restricting the right created by the prior use to continuation of only the particular activity that gives rise to the right.¹¹³

The Commission recommends that the prior user right should exist as a personal defense to infringement claims by an invention's patentee as part of the adoption of a first-to-file system.¹¹⁴ As proposed by the Commission, the prior user right should be based on six elements.¹¹⁵ First, the activity of the prior user must be in the United States and must be prior to the earliest filing to which the relevant claims of the patent are entitled.¹¹⁶ Second, the activity must be without derivation from the patentee.¹¹⁷ Third, the prior user must establish actual use or substantial preparation for such use.¹¹⁸ Fourth, only the particular scope of activity of the prior user may continue,¹¹⁹ although the volume of the activity is not limited.¹²⁰ Fifth, the prior user rights are personal in nature, and are not transferable.¹²¹ Sixth, prior user rights would be an equitable defense to a charge of patent infringement.¹²² The equitable nature of the prior user rights proposed by the Commission would allow a court, where appropriate, to assess appropriate and reasonable royalties in favor of the patentee, or to expand

111. See COMMISSION REPORT, *supra* note 1, at 48-49 (discussing prior user rights generally).

112. *Id.* at 48.

113. *Id.* at 50.

114. *Id.*

115. *Id.* at 50-51.

116. *Id.* at 50.

117. *Id.* The activity must have been based upon the independent development of the person claiming the prior use, without derivation from the person who owns the original patent. *Id.*

118. *Id.*

119. *Id.* The prior user cannot materially alter future additions of the product or service that gave rise to the right. *Id.*

120. *Id.* The prior user may reasonably expand the amount of use to meet reasonable market demands within the United States. *Id.*

121. *Id.* at 50-51.

122. *Id.* at 51.

the right to assure an equitable result.¹²³

II. *CONFLICTING VIEWS OF WHETHER THE UNITED STATES SHOULD ADOPT A FIRST TO FILE SYSTEM*

Various arguments have been raised both for and against adopting a first-to-file system since the recommendation to adopt a first-to-file system in the United States was formally introduced by the 1966 Presidential Commission on the Patent System.¹²⁴ Commentators and practitioners opposed to adopting a first-to-file system maintain that first-to-invent is an inherently fairer system because it rewards the original inventor and has served the United States well for over 150 years.¹²⁵ Proponents of first-to-file argue that it should be adopted because it is a much more efficient system and will enable the United States to participate in and benefit from the proposed patent law harmonization treaty.¹²⁶

A. *Arguments Against Adopting a First-to-File System*

One of the leading arguments advanced by those opposed to adopting a first-to-file priority system is that small entities would be placed at a disadvantage in the "race to the Patent Office."¹²⁷ This result would occur because of the limited resources available to small entities for preparing and filing patent applications.¹²⁸ Under the first-to-invent system, once inventors conceive an invention, they can proceed diligently to reduce the invention to practice without rushing to file a patent application.¹²⁹ Even if someone else files a patent application first, the first inventor will be entitled to the patent on the in-

123. *Id.*

124. See *supra* note 12 and accompanying text (citing various commentators' and practitioners' arguments for and against adopting first-to-file system).

125. COMMISSION REPORT, *supra* note 1, at 43 (discussing arguments raised for maintaining a first-to-invent system); see Conley, *supra* note 12, at 782-85 (same); Macedo, *supra* note 12, at 224-28 (same).

126. See Pravel, *supra* note 12, at 802-08 (discussing arguments for adopting a first-to-file system); Macedo, *supra* note 12, at 218-22 (discussing arguments raised for adopting a first-to-file system); COMMISSION REPORT *supra* note 1 at 43-44; (discussing arguments raised for adopting a first-to-file system).

127. Conley, *supra* note 12, at 785-86; COMMISSION REPORT, *supra* note 1, at 43.

128. Conley, *supra* note 12, at 785-86; COMMISSION REPORT, *supra* note 1, at 43.

129. 35 U.S.C. § 102(g) (1988); see *supra* note 21 (setting forth pertinent text of statute); see also *supra* note 23 and accompanying text (defining "reduction to practice" of invention).

vention.¹³⁰

With a first-to-file system, however, once inventors conceive an invention, it is in their best interest to file a patent application as soon as possible in order to preserve their patent rights.¹³¹ If a later inventor files a patent application before the original inventor, the first-to-file system grants the patent to the former.¹³² Thus, small entities are at a disadvantage because unlike large, well-financed corporations, they cannot afford to prepare and file patent applications immediately.¹³³ In addition, small entities may need time to develop and prove their inventions to help attract the necessary financing to pay for application costs.¹³⁴

Critics of the first-to-file system also argue that the opportunity to explore commercialization possibilities prior to filing a patent application is reduced with such a system because of the importance of early filing.¹³⁵ By determining the commercial viability of an invention, inventors are in a better position to decide whether to incur the costs associated with obtaining a patent on the invention.¹³⁶ With the first-to-invent system, inventors have time to make this determination while they are reducing the invention to practice.¹³⁷ In a first-to-file system, however, inventors cannot delay filing a patent application, and therefore must immediately determine whether to incur the costs associated with preparing and filing a patent application.¹³⁸ If, while an inventor is exploring commercialization possibilities, another inventor files an application for that same invention, the original inventor will lose his patent rights and the second inventor receive the patent.¹³⁹

130. 35 U.S.C. § 102(g) (1988).

131. See Conley, *supra* note 12, at 785-86 (discussing effects of first-to-file system).

132. Pravel, *supra* note 12, at 800.

133. See Conley, *supra* note 12, at 785-86 (discussing effects of first-to-file system on small entities).

134. *Id.* at 783.

135. COMMISSION REPORT, *supra* note 1, at 43.

136. See Conley, *supra* note 12, at 783 (discussing how many inventors hope to attract financing from others to pay for application costs). The cost of a patent application can vary from as low as US\$2500 to about US\$50,000 depending on the complexity of the application. *Id.* at 783 n.13.

137. *Id.* at 783-84.

138. *Id.* at 786.

139. *Id.* at 785-86.

Critics of first-to-file also argue that such a system would foster premature and sketchy disclosures in hastily-filed patent applications, resulting in a decline in the quality of applications.¹⁴⁰ This argument is based on the premise that, in order to establish an early priority date, inventors will rush to file applications on the basis of bare concepts before the inventions are fully developed.¹⁴¹ Critics of the first-to-file system also contend that the Patent Office will be burdened with an increased volume of patent applications filed for defensive purposes, many of which will contain unpatentable and inoperable inventions.¹⁴² This argument is founded on the belief that time constraints will deter inventors from conducting prior art searches or from properly distinguishing the invention from any prior art found, and also will impede the development necessary to prove that the invention is operable.¹⁴³ In addition, a first-to-file system would necessitate filing more applications in order to fully protect the invention as development proceeds.¹⁴⁴

Opponents of first-to-file also argue that such a system will result in an increased likelihood of malpractice suits against patent attorneys who fail to prepare and file patent applications immediately upon the inventor's disclosure of the invention.¹⁴⁵ This circumstance would occur if someone else files an application for the same invention, after the attorney receives the disclosure from the inventor but before the attorney files an application. Under the first-to-invent system, patent attor-

140. See Dunner, *supra* note 12, at 563 (discussing arguments against switching to first-to-file system).

141. See Conley, *supra* note 12, at 788 (discussing how overall quality of patent application would decrease due to filing applications prematurely).

142. *Id.*

143. *Id.* A prior art search is conducted to determine whether the invention is patentable over previously known subject matter that would render the invention obvious at the time it was made to a person having ordinary skill in the art to which the invention pertains. See 35 U.S.C. § 103 (1988) (stating that if, at time invention was made, subject matter sought to be patented would have been obvious to person having ordinary skill in art to which subject matter pertains, invention is not patentable). Prior art searches are also used to reveal any prior knowledge, use, sale, publication, or prior invention which cause a loss of right to a patent for the invention. See 35 U.S.C. § 102 (1988) (citing statutory bars such as prior use, sale, publication, etc. which prohibit someone from obtaining patent).

144. Conley, *supra* note 12, at 787.

145. *Id.* at 786; see Macedo, *supra* note 12, at 222-23 (discussing adverse effects on attorneys resulting from converting to first-to-file system).

neys can depend upon diligence in preparation of the application to protect themselves against possible malpractice charges.¹⁴⁶ Diligence cannot be depended upon in a first-to-file system because it is not a factor in determining priority of invention.¹⁴⁷ In a first-to-file system, the application filing date alone is determinative; the patent attorney's diligence in preparing the application is immaterial.¹⁴⁸

Finally, critics of the first-to-file system argue that abandoning the current first-to-invent system in order to participate in the proposed harmonization treaty is not justified, because harmonization will provide only limited advantages to a small segment of U.S. patent system users.¹⁴⁹ This contention rests on the belief that the only real beneficiaries of the harmonization treaty in the United States will be large multinational corporations who want to improve their competitive positions in other countries.¹⁵⁰ Critics further argue that first-to-file will result in a reduction of patents issued to small entities due to their limited ability to prepare and file patent applications promptly.¹⁵¹ With the number of patented inventions reduced, U.S. inventors also will receive fewer international patents, thus limiting their ability to market their inventions outside the United States.¹⁵²

B. Arguments in Favor of Adopting a First-to-File System

As a basis for their arguments favoring the adoption of a first-to-file system, proponents point out that many users of

146. See Conley, *supra* note 12, at 786; see 35 U.S.C. § 102 (g) (1988) (providing that factor to consider in determining priority of invention is reasonable diligence of one who was first to conceive invention and last to reduce it to practice, which can be either by actual construction of invention or filing of patent application).

147. See Frost, *supra* note 34, at 925 (discussing how patent application filing date is sole determining factor in first-to-file system when deciding which of two rival inventors is entitled to patent).

148. *Id.*

149. See Conley, *supra* note 12, at 794-95 (arguing that real purpose of many proponents of first-to-file, such as multinational companies, is to get other countries to change their laws in order to improve patent protection available in those countries).

150. *Id.* at 794.

151. See COMMISSION REPORT, *supra* note 1, at 43 (discussing objections to first-to-file raised by members of public); see also Conley, *supra* note 12, at 786-87 (discussing how adoption of first-to-file would result in fewer patents to small entities).

152. Conley, *supra* note 12, at 794.

the U.S. patent system and most of U.S. industry are currently acting on a de facto first-to-file basis both outside the United States and within the United States.¹⁵³ This de facto first-to-file system is mainly attributable to efforts by inventors to avoid forfeiture of patent rights outside the United States through pre-filing disclosures of inventions.¹⁵⁴ U.S. inventors with global commercial interests must file patent applications as early as possible in order to insure that their patent rights are protected in other nations that operate under first-to-file systems.¹⁵⁵ Commonly, first-to-file systems will bar an applicant from obtaining a patent on an invention that was disclosed to the public before the filing date of the application.¹⁵⁶ In addition, non-U.S. entities, which account for slightly less than half of all U.S. patents, already operate in a first-to-file mode in the United States because of practices in their home countries.¹⁵⁷

The U.S. patent system is also considered a de facto first-to-file system because it provides a strong but rebuttable presumption that an invention is made on the date the patent application is filed.¹⁵⁸ In order to prove invention prior to the application filing date, in interference proceedings or infringement litigations, inventors must meet stringent standards of proof.¹⁵⁹ Such standards require inventors to prove conception, diligence, and reduction to practice.¹⁶⁰ Thus, inventors will usually file patent applications promptly to avoid the numerous obstacles associated with proving an earlier invention date and to reap the many practical benefits that early filing confers.¹⁶¹

153. See COMMISSION REPORT, *supra* note 1, at 53 (discussing how filing practices of many users of U.S. patent system would be unchanged by adoption of first-to-file procedure).

154. *Id.*

155. *Id.*

156. *Id.*

157. *Id.*

158. See Frost, *supra* note 34, at 930 (discussing extent to which U.S. patent system is really like first-to-file system).

159. *Id.* at 938.

160. *Id.*; see *supra* notes 21-23 (discussing statutory basis for proving invention and reduction to practice).

161. See Frost, *supra* note 34, at 938-39 (discussing various benefits of early filing). By the single act of filing a patent application, the inventor obtains the full benefit of the filing date as the date of his invention. *Id.* at 938. Filing the patent

More than 99.9% of the patent applications that are currently filed in the United States raise no dispute as to the identity of the inventor.¹⁶² Proponents of first-to-file argue that, with regard to inventors losing priority of invention to other inventors, these statistics clearly indicate that there would be no significant difference in result between a first-to-file system and a first-to-invent system.¹⁶³ Moreover, proponents of first-to-file argue that when a dispute as to the identity of the first inventor does arise, the party who filed first prevails in a significant majority of the interference proceedings that follow.¹⁶⁴ This outcome stems from the heavy burden of proof that the party who filed second must meet in order to prove conception, diligence, and reduction to practice.¹⁶⁵

Commentators argue that even when interference proceedings do arise, a first-to-file system would greatly decrease the complexity, length, and expenses usually associated with such proceedings.¹⁶⁶ Under the current first-to-invent system, the costs of an interference proceeding may run into the hundreds of thousands of U.S. dollars,¹⁶⁷ and can delay the issuance of a patent for many years.¹⁶⁸ Small entities are particularly vulnerable in interference proceedings, not only because of the enormous costs involved, but because many do not have the resources or a sufficiently sophisticated understanding of patent law to keep the journals and records necessary to prove the date of their invention.¹⁶⁹ Commentators argue that a first-to-file system would eliminate this cost and complexity by substituting a fair, simple, and inexpensive means by which prior-

application early and using the filing date as the date of invention avoids various obstacles to proving a date of invention prior to the application filing date. *Id.* Some of these obstacles include proving the date of conception, proving diligence in reducing the invention to practice, and proving actual reduction to practice. *Id.* at 938-39.

162. COMMISSION REPORT, *supra* note 1, at 44.

163. See Dunner, *supra* note 12, at 563 (discussing extremely small number of cases that would be affected by adoption of first-to-file system).

164. COMMISSION REPORT, *supra* note 1, at 44; Dunner, *supra* note 12, at 561; Frost, *supra* note 34, at 939.

165. Frost, *supra* note 34, at 938-39.

166. See Pravel, *supra* note 12, at 802-04 (discussing advantages of first-to-file system); see *supra* note 24 (discussing interference proceedings).

167. Pravel, *supra* note 12, at 799.

168. Frost, *supra* note 34, at 928.

169. See Pravel, *supra* note 12, at 798-99 (discussing requirements of interference proceedings).

ity of invention would be readily determined on the basis of the filing date of the application.¹⁷⁰ This legally fixed date of priority of invention would eliminate the uncertainties associated with interferences and would provide greater reliability for U.S. patents.¹⁷¹

Proponents of a first-to-file system also state that adoption of such a system would encourage early filing worldwide, so that U.S. patent rights are not forfeited.¹⁷² Since there is no grace period in most non-U.S. first-to-invent systems, many times either a third party's or a U.S. inventor's own publication of his invention before filing an application will bar obtaining a patent.¹⁷³ The current first-to-invent system does not encourage U.S. inventors to file promptly.¹⁷⁴ Therefore, proponents of the first-to-file system argue that the first-to-invent system hurts the competitiveness of U.S. industry because U.S. inventors' patent rights are forfeited in other countries when there are disclosures of their inventions in any publications.¹⁷⁵

In addition, proponents of first-to-file maintain that encouraging inventors to file early would accelerate the innovation process and promote early public disclosure of inventions.¹⁷⁶ The objective of the U.S. patent system as set forth in the U.S. Constitution is to "promote the Progress of Science and useful Arts."¹⁷⁷ This objective is accomplished by granting to inventors limited monopolies in exchange for full and complete disclosure of their inventions, thus advancing the state of the art and giving the public a chance to use the invention.¹⁷⁸

Under the current first-to-invent system, a first inventor who fails to develop and disclose the invention promptly

170. Macedo, *supra* note 12, at 215-19; COMMISSION REPORT, *supra* note 1, at 44.

171. COMMISSION REPORT, *supra* note 1, at 54; Dunner, *supra* note 12, at 563.

172. COMMISSION REPORT, *supra* note 1, at 44.

173. *Id.* at 47; Pravel, *supra* note 12 at 806-07.

174. COMMISSION REPORT, *supra* note 1, at 53.

175. *Id.*

176. *Id.*; see Macedo, *supra* note 12, at 225 (arguing that since goal of patent law is to encourage disclosure of inventions, it may be just as reasonable to grant patent to first person to disclose invention as it would to grant patent to first inventor).

177. U.S. CONST. art. I, § 8, cl. 8. The U.S. 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." *Id.*

178. Macedo, *supra* note 12, at 225.

would be granted a patent over a later independent inventor who is prepared to develop, manufacture, and market the invention immediately.¹⁷⁹ Proponents of first-to-file maintain that a first-to-file system, unlike the first-to-invent system, would reward an inventor for initiating the process of bringing that invention to public availability by promptly filing an application for the invention.¹⁸⁰ This effect is consistent with the ultimate goal of the patent system to encourage speedy disclosure of inventions.¹⁸¹

Finally, proponents of first-to-file urge the United States to adopt such a system so that the United States will be in a better position to participate in the proposed harmonization treaty.¹⁸² Participation in the treaty would enable the United States to attain needed improvements in the patent systems of other countries.¹⁸³ One important benefit that the harmonization treaty would provide to the United States is a grace period provision that presently does not exist in most other countries.¹⁸⁴ This provision would help protect U.S. inventors against their own disclosures prior to filing for a patent.¹⁸⁵ Proponents of first-to-file argue that the international grace period provision should serve as a significant incentive to encourage the United States to adopt a first-to-file system.¹⁸⁶

The proposed harmonization treaty would also bring another important change to non-U.S. patent law. The treaty would recognize a "doctrine of equivalents,"¹⁸⁷ which is a benefit available in the United States but not available in most

179. See *supra* note 21 and accompanying text (setting forth statutory basis for determining priority of invention).

180. Macedo, *supra* note 12, at 225.

181. See generally HILDRETH, *supra* note 24, at 2 (describing how disclosure of invention promotes progress of science and benefits public).

182. See Pravel, *supra* note 12, at 806-08 (advocating United States adoption of first-to-file system in order to gain advantages of harmonization treaty).

183. COMMISSION REPORT, *supra* note 1, at 54.

184. Draft Treaty, *supra* note 9, art. 12; see *supra* notes 94-100 and accompanying text (discussing grace period).

185. See Commission Report, *supra* note 1, at 47 (discussing how absence of grace period outside United States has caused many inventors to inadvertently forfeit their non-U.S. patent rights by publishing or otherwise publicly disclosing their inventions).

186. Pravel, *supra* note 12, at 807.

187. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950).

other countries.¹⁸⁸ This doctrine provides for an equitable determination as to the scope of patent protection based on numerous factors rather than relying solely on the literal words of the patent claims.¹⁸⁹ As this doctrine is unavailable in most countries other than the United States, non-U.S. patents are often so restricted in their protection that they are of insignificant value.¹⁹⁰ The proposed harmonization treaty, however, would provide some measure of equivalency, thereby broadening the scope of non-U.S. patent protection.¹⁹¹ Additional advantages associated with the adoption of a harmonization treaty include the reduction of costs in obtaining patent protection internationally, reduction of costs associated with defending a patent, better enforcement of patent protection worldwide, and the simplification of international patent law.¹⁹²

III. *THE UNITED STATES SHOULD ADOPT A FIRST-TO-FILE SYSTEM UNDER THE CONDITIONS SPECIFIED IN THE 1992 REPORT FROM THE ADVISORY COMMISSION ON PATENT LAW REFORM*

The United States should no longer hesitate to adopt a first-to-file system of establishing priority of invention. The Commission's recommendations outline a carefully balanced approach that reflects a consensus among the various affected groups and that will enable the United States to participate in the proposed harmonization treaty.¹⁹³ The harmonization treaty will enable the United States to obtain significant improvements in the patent systems of other countries and in turn will benefit all U.S. inventors. In addition, the harmonization treaty will provide a simplified and less expensive means of obtaining international patent protection.¹⁹⁴

188. Pravel, *supra* note 12, at 807.

189. See *supra* note 60 and accompanying text (discussing test for doctrine of equivalents in the United States); see also *supra* note 74 and accompanying text (discussing purpose of claims).

190. Pravel, *supra* note 12, at 807.

191. Draft Treaty, *supra* note 9, art. 21.

192. See Macedo, *supra* note 12, at 229 (discussing advantages of harmonization).

193. COMMISSION REPORT, *supra* note 1, at 11.

194. Macedo, *supra* note 12, at 229-30.

A. *The Advisory Commission's Recommendations Eliminate the Perceived Disadvantages of a First-to-File System*

In outlining an approach that will make a first-to-file system acceptable in the United States, the Advisory Commission obtained extensive public input to identify what problems may exist with adopting a first-to-file system.¹⁹⁵ This public input was an essential factor in identifying the perceived disadvantages of adopting a first-to-file system, and in deciding which course of action would be most appropriate for the United States to pursue.¹⁹⁶ The Advisory Commission addressed these disadvantages during its tenure and has made recommendations that, if implemented, would eliminate the perceived disadvantages of adopting a first-to-file system.

1. Small Entities Will Not Be Disadvantaged

Commentators and practitioners opposed to adopting a first-to-file system contend that such a system would hurt independent inventors and small companies due to their limited available resources to file an application with the Patent Office promptly.¹⁹⁷ It is argued that small entities would be at a disadvantage because unlike large, well-financed corporations, they may need time to develop and prove their inventions in order to help attract the necessary financing to pay for the application costs.¹⁹⁸ Those entities and individuals with limited resources would have limited access to the Patent Office, resulting in reduced incentive for independent inventors and small businesses to innovate and to apply for patents.¹⁹⁹

The provisional application that the Advisory Commission recommends, however, would eliminate these disadvantages by providing a simple and relatively inexpensive method of establishing an early priority date for the subject matter that the application discloses.²⁰⁰ The provisional application's minimum requirements would allow most inventors to file the application themselves, or with minimal assistance from patent

195. COMMISSION REPORT, *supra* note 1, at 5, 43-44.

196. *Id.*

197. *See* Conley, *supra* note 12, at 785 (discussing adverse effects of first-to-file system).

198. *Id.* at 783.

199. *Id.* at 786-87.

200. COMMISSION REPORT, *supra* note 1, at 46.

practitioners, and thus would make the Patent Office more accessible to everyone.²⁰¹

The provisional application procedure is actually more advantageous than the current first-to-invent system with respect to the problem of attracting necessary financing. Once the provisional application is filed, applicants would have twelve months to file complete applications meeting all regular application requirements.²⁰² During this twelve-month period, applicants could work solely on obtaining any financing that they may need to continue prosecuting applications. Under the first-to-invent system, however, once inventors conceive an invention, they must work with reasonable diligence to reduce the invention to practice in order to preserve the priority date as of the date of conception.²⁰³ Attempting to secure financing for an invention does not constitute reasonable diligence in reducing an invention to practice.²⁰⁴ Therefore, under the first-to-invent system, if inventors work solely towards securing financing after they conceive the invention, but do not work diligently towards reducing the invention to practice, they lose the conception priority date.²⁰⁵ Thus, by using the provisional application procedure, small entities would not be at a disadvantage if a first-to-file system were adopted.

2. Opportunities to Explore Commercialization Possibilities Will Not Be Reduced

Opponents of first-to-file also claim that such a system

201. *See id.* at 11 (discussing how provisional applications would increase access to patent system for all inventors).

202. *Id.* at 46.

203. 35 U.S.C. § 102(g) (1988); *see supra* note 21 (setting forth text of statute).

204. *See Griffith v. Kanamaru*, 816 F.2d 624 (Fed. Cir. 1987) (holding that attempt to finance experimentation does not constitute diligence). Courts may consider the reasonable everyday problems and limitations encountered by an inventor in reducing an invention to practice. *Id.* at 626. "Diligence can be shown only when the inventor has concentrated attention on the reduction to practice to the substantial exclusion of work on other conceptions." Frost, *supra* note 34, at 938. "[A]n inventor is either diligent at a given time or he is not diligent; there are no degrees of diligence." MPEP, *supra* note 23, ch. 715.07(a). "A man may be diligent within the meaning of the patent law when he is doing nothing, if his lack of activity is excused." *Id.*

205. *See* 35 U.S.C. § 102(g) (1988) (requiring that in determining priority of invention reasonable diligence of first to conceive and last to reduce to practice will be considered); *see also supra* note 21 and accompanying text (setting forth pertinent text of statute).

reduces opportunities to explore commercialization possibilities prior to filing.²⁰⁶ In a first-to-file system, inventors must file patent applications promptly in order to preserve an early priority filing date. Therefore, it is claimed, inventors under a first-to-file system are unable to make a well-considered determination of whether the invention merits incurring the costs associated with preparing and filing a formal application.²⁰⁷

This problem, however, would be eliminated with the provisional application procedure. The provisional application would give applicants a full year to determine whether to proceed with the expense of filing a formal, complete application for their inventions, while preserving their priority date as of the date that the provisional application was filed.²⁰⁸ In addition, a grace period provision under the first-to-file system would allow applicants to publish or publicly disclose the invention for a one year period without prejudice.²⁰⁹ This grace period would allow inventors to validate the commercial viability of an invention by finding a prospective licensee, before making any significant financial commitment toward obtaining patent protection.²¹⁰

3. The Quality of Patent Applications Will Not Be Reduced and the Quantity of Patent Applications Will Not Significantly Increase

Those opposed to adopting a first-to-file system argue that such a system would foster premature and sketchy disclosures in hastily-filed patent applications, reducing the overall quality of applications.²¹¹ The provisional application system negates this concern by enabling an inventor to file an application early, preserve his or her right of priority to the invention, and then take a full year to complete the requisites of a complete application.²¹² Because provisional applications are not to be examined by the Patent Office until they are converted to com-

206. COMMISSION REPORT, *supra* note 1, at 43.

207. *See* Conley, *supra* note 12, at 785-86 (describing how first-to-file would force inventors to make hasty decisions regarding whether to file applications).

208. COMMISSION REPORT, *supra* note 1, at 46.

209. *Id.* at 47.

210. *Id.*

211. Conley, *supra* note 12, at 788.

212. COMMISSION REPORT, *supra* note 1, at 53.

plete applications, this one-year period actually makes it easier than the first-to-invent system to provide thorough and complete patent applications prior to their examination.²¹³ In addition, the statutory requirements for a full written description and enablement of the claimed invention²¹⁴ would continue to apply in the same substantive manner in a U.S. first-to-file system under the provisional application procedure.²¹⁵ Therefore, insufficient disclosure would not be a concern in the adoption of such a system. Because those requirements would continue to apply and the same professionals now preparing applications would also be preparing applications under a first-to-file system, it is highly unlikely that converting to such a system would result in applications of inferior quality.²¹⁶

In addition, adopting a first-to-file system would not significantly increase the number of patent applications filed in the Patent Office. Critics of first-to-file contend that adopting such a system would increase the number of patent applications filed for defensive purposes.²¹⁷ They also contend that more applications would be filed in order to fully cover the invention as development proceeds.²¹⁸ This argument concerns primarily large entities such as corporations, not at individual inventors.²¹⁹ Many U.S. inventors, however, particularly large corporations, are already operating under a de facto first-to-file system.²²⁰ These inventors must file early in order to protect their patent rights in countries that operate under first-to-file systems.²²¹ Therefore, the number of applications filed under a first-to-file system would not increase to an overburdening level because the filing practices of many inventors will not change dramatically under such a system.²²²

Even if the number of applications filed does increase

213. *Id.*

214. See 35 U.S.C. § 112 (1988) (setting forth statutory requirements for full written description of invention in such clear, concise, and exact terms as to enable any person skilled in art to which it pertains to make and use same); see *supra* note 87 and accompanying text (explaining enablement requirements of 35 U.S.C. § 112).

215. COMMISSION REPORT, *supra* note 1, at 53.

216. Dunner, *supra* note 12, at 564.

217. COMMISSION REPORT, *supra* note 1, at 43.

218. Conley, *supra* note 12, at 787.

219. Dunner, *supra* note 12, at 564.

220. *Id.*

221. COMMISSION REPORT, *supra* note 1, at 53.

222. *Id.*

somewhat with the adoption of a first-to-file system, the burden on the Patent Office will not increase proportionately under the system proposed by the Commission. Any increase in patent applications likely will result from applicants filing more than one provisional application to encompass fully all aspects of their inventions.²²³ One or more provisional applications covering the invention eventually will be consolidated into one complete application.²²⁴ Under the provisional application procedure, the examination of applications does not begin until the application is complete.²²⁵ It is the examination of applications that actually burdens the Patent Office due to the time and effort involved in such examinations.²²⁶ Therefore, the only additional burden on the Patent Office under the provisional application procedure will be filing additional applications, not examining additional applications.

4. Malpractice Suits Against Patent Attorneys Will Not Increase

Those opposed to first-to-file also cite an increased likelihood of malpractice suits against patent attorneys as a reason not to adopt such a system.²²⁷ This situation would occur where an attorney fails to prepare and file an application immediately upon disclosure of the invention from the inventor, thus resulting in a loss of priority to another inventor who files first.²²⁸ Where time is of the essence in filing an application, an attorney undoubtedly has a duty to file promptly. This responsibility of reasonable diligence, however, encompasses the same effort that is required of an attorney preparing an application today.²²⁹

223. *See id.* at 46 (discussing that under provisional application procedure, applicants could file one or more provisional applications and then consolidate them into one complete application).

224. *Id.*

225. *Id.*

226. *See* Macedo, *supra* note 12, at 221 n.149 (discussing how average time to process patent application in 1986 was 22 months).

227. *See* Conley, *supra* note 12, at 786 (discussing possible malpractice if attorney does not file application promptly); *see also* Macedo, *supra* note 12, at 222-23 (discussing adverse effects on attorneys resulting from adoption of first-to-file system).

228. Conley, *supra* note 12, at 786.

229. *See id.* (discussing how under current first-to-invent system, reasonable diligence in preparation of application will protect attorney from charge of malpractice).

The amount of time necessary for a reasonably diligent attorney to file an application can vary, depending on the nature and complexity of the application. The provisional application, however, provides a simplified application procedure that greatly reduces the amount of time necessary to file an application.²³⁰ Therefore, in most instances, a patent attorney will be able to file an application soon after disclosure from an inventor, and no significant delays will occur that might result in an inventor losing priority of invention to another applicant who files earlier.

Attorneys may nevertheless protect themselves from possible malpractice situations by informing clients of how long it will be before they can actually file an application. This information will allow the clients to decide if they wish to find another attorney who can prepare and file an application in less time. Also, the onus of prompt filing will not fall entirely on the attorney preparing the application. The attorney's ability to prepare and to file an application promptly will depend primarily upon the client providing the information needed to file the application in a timely manner. In addition, due to the simplified nature of the provisional application, inventors will always have the option of preparing and filing the provisional application *pro se*, with minimal assistance from an attorney if necessary.²³¹

By providing a simple and inexpensive means for establishing priority of invention, the first-to-file system proposed by the Commission effectively addresses the concerns of commentators and practitioners who are opposed to adopting such a system. If adopted, the Commission's recommendations will make the patent system more accessible to all inventors, including small businesses and individual inventors.²³² The proposed system will also reduce the time and expense of obtaining patents by providing a readily determinable date of priority, and will help protect U.S. inventors' rights in other countries by encouraging early filing.²³³

230. See COMMISSION REPORT, *supra* note 1, at 46 (discussing advantages of provisional application procedure).

231. See *id.* at 45-46 (describing simplified nature of provisional application).

232. COMMISSION REPORT, *supra* note 1, at 11.

233. *Id.* at 53-54 (discussing considerations of some advantages of adopting first-to-file system).

B. Harmonization Will Provide Benefits to All U.S. Inventors

Harmonization of patent law will strengthen international patent protection and will make acquisition of patents more simple and uniform.²³⁴ Adoption of a first-to-file system will place the United States in a better position to participate in the upcoming patent harmonization treaty.²³⁵ Participation in the harmonization treaty will provide U.S. inventors with stronger international patent protection and increased international market potential for their inventions.²³⁶

A clear indication that many practitioners feel harmonization will benefit U.S. inventors is the recent movement towards converting to a first-to-file system if a favorable harmonization treaty is concluded.²³⁷ The prospect of harmonization has caused commentators and practitioners who once steadfastly disapproved of a first-to-file system to rethink their positions and lean towards the adoption of such a system contingent upon a harmonization treaty that provides overall benefits to the United States.²³⁸ The U.S. Congress has responded to this movement by introducing legislation that would convert U.S. patent law to a first-to-file system.²³⁹ This recent widespread approval of adoption of a first-to-file system, after the notion's rejection for over twenty-five years, is directly attributable to

234. Pravel, *supra* note 12, at 813.

235. COMMISSION REPORT, *supra* note 1, at 54.

236. See CONFERENCE REPORT, *supra* note 9, at 14 (discussing unforseeability of United States' participation in harmonization treaty absent U.S. adoption of first-to-file system).

237. See Pravel, *supra* note 12, at 800-01 (stating that primary reason United States is considering adopting first-to-file system is proposed harmonization treaty).

238. *Conferences: ABA Takes Stand Against CAFC Practice of Vacating Invalidity Rulings As Moot*, [May-Oct.] Pat. Trademark & Copyright J. (BNA) No. 1096, at 458. At the American Bar Association (ABA) annual meeting in 1991, the Patent, Trademark and Copyright (PTC) Section adopted a resolution favoring first-to-file if other countries' laws are changed to the benefit of U.S. patent applicants. *Id.* at 459. At the 1992 annual meeting the ABA-PTC passed a resolution to reaffirm the Section's current position and to recommend rescission of two resolutions adopted by the ABA House of Delegates in 1967. *Id.* Those 1967 resolutions, which were prompted by a recommendation of the 1966 Presidential Commission on the Patent System to adopt a first-to-file system, opposed changing to a first-to-file system. *Id.*; see Macedo, *supra* note 12, at 195-96 (discussing industry and patent bar opposition to recommendation of 1966 Commission to adopt first-to-file system).

239. S. 2605, 102d Cong., 2d Sess. (1992); H.R. 4978, 102d Cong., 2d Sess. (1992) (proposing amending U.S. patent law to harmonize with other countries' patent systems).

the many benefits that patent law harmonization can confer on U.S. inventors.²⁴⁰

Although harmonization of patent laws will enable U.S. patent applicants to gain rights that are unavailable under present non-U.S. patent laws, those opposed to adopting a first-to-file system have said that harmonization would only benefit large corporations with international interests and thus does not justify changing the current U.S. patent system.²⁴¹ Actually, however, by adopting a first-to-file system, the United States will obtain needed improvements in the patent systems of other countries through the successful completion of a favorable harmonization treaty that will help all U.S. inventors.²⁴²

For those who currently seek patent protection for their inventions in countries other than the United States, harmonization will make the acquisition of non-U.S. patents more uniform and simple, reduce the costs of obtaining patent protection internationally, reduce the costs associated with defending a patent, and provide better enforcement of patent protection worldwide.²⁴³ In addition, harmonization would provide substantive improvements in international patent law that will preserve and strengthen U.S. inventors' patent protection in other countries.²⁴⁴

One such improvement is the provision of a grace period.²⁴⁵ The current absence of an international grace period is a significant detriment to U.S. inventors because it results in the loss of patent rights outside the United States.²⁴⁶ Incorporating such a grace period in the harmonization treaty in which the United States participates would be extremely beneficial to

240. See Pravel, *supra* note 12, at 800-01 (discussing harmonization treaty as primary reason U.S. is considering adoption of first-to-file system).

241. See Conley, *supra* note 12, at 786-87 (discussing how adoption of first-to-file system would reduce incentive of independent inventors and small businesses to innovate and file patent applications).

242. See Pravel, *supra* note 12, at 813 (discussing improvements in patent laws that would result from harmonization).

243. See Macedo, *supra* note 12, at 228-30 (discussing advantages of harmonization).

244. See Pravel, *supra* note 12, at 806-08 (discussing advantages of harmonization).

245. Draft Treaty, *supra* note 9, art. 12; see *supra* notes 94-105 (discussing grace period).

246. COMMISSION REPORT, *supra* note 1, at 47.

U.S. inventors. Another important substantive improvement that harmonization would provide is the recognition of a doctrine of equivalents.²⁴⁷ Recognition of such a doctrine will significantly broaden the scope of international patent protection and thus increase the value of non-U.S. patents.²⁴⁸

For inventors who would not normally seek non-U.S. patent protection because of the complicated procedures and the costs involved, harmonization will make such protection more accessible and more affordable for all U.S. entities, large and small.²⁴⁹ International patent protection recently has gained importance in the United States because of the growth of non-U.S. markets that have become more accessible such as the former Soviet Union and Eastern Europe.²⁵⁰ In light of this increased market potential, individual inventors or small companies that may not have considered marketing or licensing their products internationally in the past are more likely to do so in the future. Harmonization of patent laws will enable all U.S. inventors more easily to expand their markets internationally, thereby increasing the overall competitiveness of U.S. industry internationally.²⁵¹ With proper international patent protection, a net technology exporter like the United States will receive significant economic benefits.²⁵²

CONCLUSION

The recommendations of the 1992 Advisory Commission on Patent Law Reform present a favorable solution to the first-to-file debate that removes many of the perceived disadvantages associated with converting to such a system. The Commission's approach to adoption of a first-to-file system will make the Patent Office more accessible to all inventors, and will not significantly change the practices of those who currently use the U.S. patent system. By adopting a first-to-file

247. Draft Treaty, *supra* note 9, art. 21; *see supra* note 60 and accompanying text (discussing doctrine of equivalents).

248. *See* Pravel, *supra* note 12, at 807 (discussing how due to lack of doctrine of equivalents in other countries, non-U.S. patents are often so restricted in their protection that they are of insignificant or no value).

249. *Id.* at 813 (discussing improvements in patent laws that would result from harmonization).

250. *Id.*

251. *Id.*

252. Macedo, *supra* note 12, at 230-31.

system, the United States will be able to participate in the forthcoming patent law harmonization treaty that will simplify and expedite the acquisition of strong worldwide patent protection. Participation in the treaty will allow the United States to attain significant improvements in the patent systems of other countries that will benefit all U.S. inventors.

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