
International Patent Strategies for Individual Inventors

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ABSTRACT

Independent inventors are often driven by their curiosity and passion to make highly novel inventions. In many cases, the commercial potential of these inventions is not fully understood at the time the invention is made. In addition, the limited funds available to independent inventors to cover patenting expenses present a barrier to the independent inventor in realizing the full commercial potential of the invention. The lack of an optimized patent strategy can reduce the ultimate value of the invention. The authors discuss examples of successful inventions, conceived by independent inventors that did not have apparent commercial potential or ways to achieve commercialization. The authors present strategies to help independent inventors develop cost effective approaches to preparing, filing, and prosecuting U.S. and foreign patents under the present U.S. “first to file” system. Additionally, the authors discuss some of the implications to independent inventors of proposed changes to the U.S. patent system under H.R. 2795 “The Patent Reform Act of 2005” which attempt to harmonize the “first to invent” U.S. patent system with the “first to file” international patent system.

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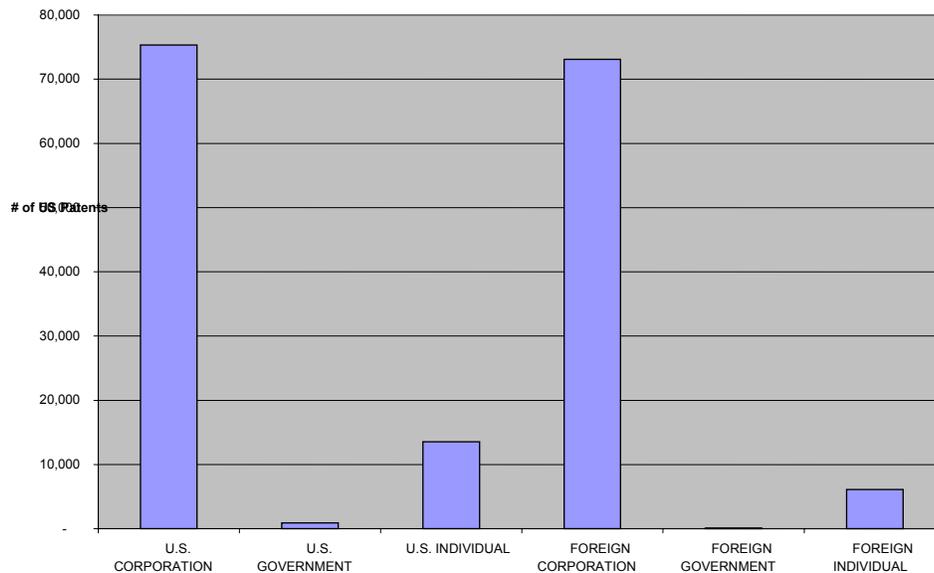
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Who are Independent Inventors?

Independent Inventors can be characterized in many ways, but for the purposes of this paper we will use a description consistent with the statistics reported by the U.S. Patent and Trademark Office (USPTO). The working definition put forth by the USPTO for an independent inventor patent is a patent for which ownership is either unassigned, *i.e.* patent rights are held by the inventor, or assigned to an individual at the time of grant.¹ Although the USPTO definition leaves open the possibility that an independent inventor patent could be assigned to an individual other than the original inventive entity, it is reasonable to assume that the frequency at which this occurs is relatively low. The statistics compiled by the USPTO provide some useful insights into the makeup and origin of independent inventors. Table 1 is compiled with information extracted from for the year 2003 which was the most recent year for which statistics were available.²

US Patents Granted in 2003



1. Office of Electronic Information Products/PTMD, U.S. Patent & Trademark Office, Patent Counts By Class Year, January 1977-December 2004 (2004), available at <http://uspto.gov/web/offices/ac/ido/oeip/taf/cbcby/pdf>.

2. Office of Electronic Information Products/PTMD, U.S. Patent & Trademark Office, All Technologies Report, January 1, 1963-December 31, 2004 (2004), available at http://www.uspto.gov/web/offices/ac/ido/oeip/taf/all_tech.pdf.

Table 1. Independent Inventor Patent Statistics for the year 2003 as compiled by the USPTO.

In total, over 169,000 U.S. patents were granted in 2003. U.S. and foreign corporations received 45% and 43% of the total patents granted, respectively, whereas U.S. and foreign independent inventors received only 8% and 3.6%, respectively. U.S. independent inventors received 69% and foreign independent inventors received 31% of the over 19,600 U.S. patents granted to individual inventors. This statistic raises the interesting question as to why foreign independent inventors receive such a small share of the independent inventor patents granted in the U.S. Although it is beyond the scope of this paper to attempt to provide a definitive answer to this question, we will discuss several important attributes of the U.S. patent system, *i.e.* policies and cost structures, that favor the individual inventor and that therefore may contribute to this empirical observation.

Unique Attributes of the U.S. Patent System

One important difference between the U.S. patent system and that of most other countries is that U.S. patent law operates under a “first to invent” system, whereas most other countries operate under a “first to file” system. This difference is reflected in many subtle and not so subtle ways that impact both independent and corporate inventors.³ Readers seeking additional information are directed to which are published in the Official Journal of the European Patent Office (EPO) (1999).⁴ These articles present arguments in favor and against the adoption of a “grace period” and other proposed changes to the European patent system to designed to both benefit independent and academic inventors and also to simplify, *e.g.* cost-reduce, and unify the European patent system. The arguments in

3. Office Journal of the EPO, European Patent Office, European Union: Report on the hearing of 5 October 1998 on a grace period for patents 155-165 (1999), available at http://www.european-patent-office.org/epo/pubs/oj99/3_99/3_1559.pdf; See also, Office Journal of the EPO, European Patent Office, Communication from the Commission dated 5 February 1999 to the Council, the European Parliament & the Economic & Social Committee: Promoting innovation through patents – The follow up to the Green Paper on the Community & the Patent System in Europe, 197-232 (1999), available at [http://www.european-patent-office.org/epo/pubs/oj99/4_99/4_1979/pdf](http://www.european-patent-office.org/epo/pubs/oj99/4_99/4_1979.pdf).

4. *Id.*

favor generally benefit academic and independent inventors whereas the arguments against generally benefit corporations. As of this writing, none the proposed changes discussed in these 1999 articles have been made to the European patent system.

One of the most important, and costly, decisions facing independent inventors is whether or not to pursue patent protection for their invention. Additionally, one of the first decisions faced by the independent inventor is whether or not to file for patent protection in his country of origin and, if so, when to file. Because both of the authors are U.S. citizens and most familiar with U.S. law and policies, our examples include inventions which are filed first in the U.S. and then filed internationally. In the case of non-U.S. inventors, it is assumed that they would file first in their country of origin and then internationally, although this is not always the case where the focus of exploitation of the invention is intended from the start to be the U.S. This assumption is supported by statistics published both in the Trilateral Statistical Report (2003)⁵ and by the World Intellectual Property Organization (WIPO) (2005).⁶ The data from both of these sources indicate that most patents are first filed in the country of origin of the inventor and that international patent protection is pursued subsequently.

Given the above, one would expect, consistent with the data in Table 1, that foreign independent inventors would obtain fewer U.S. patents than their U.S. counterparts, but an obvious question remains as to whether at least part of the more than the observed >2X difference (see Table 1) in the percentages of U.S. Patents obtained by U.S. and foreign independent inventors can be attributed to the unique features of the U.S. patent system that favor the independent inventor. It would be interesting to be able to compare the ratios of patents obtained by domestic and foreign independent inventors in the U.S., Japan, and the various European Patent Office (EPO) states. Unfortunately, the authors were unable to find published statistics from the EPO, the Japanese Patent Office (JPO), or WIPO on independent inventor patents, such as are published by the United States Patent and Trademark Office (USPTO). It would also be

5. European Patent Office (EPO), Japanese Patent Office (JPO) & U.S. Patent & Trademark Office (USPTO), Trilateral Statistical Report (2003), http://www.european-patent-office.org/tws.tsr_2003/.

6. World Intellectual Property Organization (WIPO), Industrial Patent Statistics (2005), *available at* <http://www.wipo.int/ipstats/en/>.

interesting to understand why independent inventor statistics appear to be available solely from the USPTO. One reasoned explanation is the focus of the U.S. patent system on the individual inventor, based on the Constitutional grant of patent rights to individuals, as expressed, for example, in the first to invent doctrine *supra*.

Independent Inventors and the U.S. Patent System

The U.S. government recognizes four general forms of intellectual property protection, each of which is owned by its creator unless the inventor assigns his rights to another person or entity. These four forms of intellectual property protection are trademarks, copyrights, trade secrets, and patents. Because the focus of this paper is international patent strategies for independent inventors, it is beyond the scope of this paper to discuss trademarks, copyrights, or trade secrets other than as might factor into the determination of an international patent strategy. However, please note that all forms of intellectual property protection should be considered in the context of an overall intellectual property strategy and that there are international considerations for each form of intellectual property which should be incorporated into a comprehensive intellectual property protection strategy.

There is little question that the motivations which drive independent inventors are similar to those of their corporate, government, and academic counterparts. However, independent inventors are directly responsible for the key decisions and their consequences with respect to the commercialization of their inventions. While all inventors undoubtedly derive a sense of satisfaction from the invention process itself and stand to gain from the successful commercialization of their inventions, independent inventors are often directly responsible and personally accountable for the key strategic decisions which ultimately determine the commercial value and hence the success or failure of their inventions.

Although the U.S. patent system has undergone continual evolution since its inception, the basic underlying concepts were incorporated into the first Article of the U.S. Constitution. The U.S. patent system was conceived by the framers of the U.S. Constitution who were very familiar with the English and /or European patent systems of their day and had strong adverse feelings about their lack of fairness and failure to provide proper incentives to aspiring

inventors.⁷ For example, under the Sixteenth Century English patent system, a patent was a legalized monopoly granted by the monarchy to an individual in return for loyalty or payment in the form of “Royalties.” In hindsight, it is easy to see why Thomas Jefferson and other influential thinkers of his time, believed that significant reforms in the European system were necessary to preserve the beneficial aspects that they felt a patent system could provide to society while remaining consistent with the spirit and ideals of the U.S. democracy that they were in the process of creating. Article 1, Section 8 of the U.S. Constitution provides the U.S. Congress with the power to “promote the progress of science and the useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”⁸

The strategy used by the framers of the U.S. Constitution to implement their new patent system was to make patents accessible to the greatest possible number of inventors and to provide an incentive for invention and innovation. This was accomplished by keeping the patent application process as routine and inexpensive as was possible, and by requiring that the patentee be “the first and true inventor” anywhere in the world. This was in stark contrast to the English system in which only a fortunate few could aspire to obtain patent protection. The U.S. system considered “the first and true inventor” to be from anywhere in the world, as differentiated from the English system in which the first and true inventor was considered to be the first person to introduce the invention to that country.

International Influence of the U.S. Patent System

Kingston argues that “intellectual property rights have been driven relentlessly towards a unitary system for the entire world, originally through passive copying of flawed United States arrangements, but more recently as a result of determined lobbying by American interests.”⁹ Kingston advocates the view that the Trade-

7. See Thomas M.S. Hemnes, Three Common Fallacies in the User Interface Copyright Debate, *THE COMPUTER LAWYER*, Vol. 7, No. 2, Feb. 1990, available at <http://lpf.ai.mit.edu/Copyright/laf-fallacies.html>; ALAN L. DURHAM, *PATENT LAW ESSENTIALS: A CONCISE GUIDE* (Quorum Books, 1999); B. Zorina Khan & Kenneth L. Sokoloff, *Institutions & Technological Innovation During Early Economic Growth: Evidence From the Great Inventors of the United States, 1790-1930*, <http://econ.barnard.columbia.edu/~econlist.papers/Sokoloff/pdf>.

8. U.S. CONST. art. 1, § 8, cl. 8.

9. William Kingston, “‘Genius,’ ‘faction’ & rescuing intellectual property

related Aspects of Intellectual Property Rights (TRIPs) agreement, which brought the World Trade Organization (WTO) into existence and was signed at Marrakesh at the end of 1993, was overly influenced by large U.S. corporations and thus favored their interests over those of small companies.¹⁰ However, Kingston does acknowledge the U.S. patent system continues to provide important advantages for small companies that qualify as “small entities” by offering significant discounts on patent filing fees.¹¹ In addition, Kingston points out that in both the U.S. and internationally, there have been ongoing efforts to reduce the costs of resolving patent disputes, which is particularly important to small companies who do not have the same level of resources that are available to large corporations.¹² The needs of independent inventors are similar in many ways to those of small companies and thus the fees and policies that apply to small companies in the U.S. and internationally in most cases apply to independent inventors as well and therefore influence them accordingly.

Independent Inventor Resource Constraints

Unlike their counterparts in industry, government, and academia, independent inventors do not invent pursuant to an agreement to invent for compensation, *i.e.* an employment agreement, and are highly likely to be the sole owners of record of their inventions. Therefore, independent inventors are solely responsible for all costs associated with pursuing protection for their inventions in the U.S. and abroad. To maximize their return on investment, independent inventors must develop commercialization and intellectual property protection strategies which optimize the present and potential future value of their inventions.

Although there are many intellectual property protection strategies that independent inventors might adopt, independent inventors usually desire to obtain high quality, appropriate, intellectual property coverage while minimizing their costs. In addition, the timing of expenditures is a crucial consideration because it is sometimes difficult to ascertain the commercial potential or the

rights,” PROMETHEUS, Vol. 23, No. 1 3-25 (2005).

10. *Id.*

11. *Id.*

12. *Id.*

availability of intellectual property protection for an invention in the early phases of the commercialization process. Independent inventors often choose to use features of the U.S. and international intellectual property protection systems that provide mechanisms to minimize expenditures until the commercial potential and patentability on a new invention are better understood. This is readily appreciated because most independent inventors are self financed.

Independent Inventor Commercialization Strategy Examples

Independent inventors who pursue commercialization of their inventions may choose to do so directly or through others via an intellectual property agreement which provides for compensation in return for the use of the independent inventor's intellectual property. In a recent study of independent inventors, Weick and Eakin found that while the highest percentage of independent inventors reported starting their own companies to commercialize their inventions, nearly as many independent inventors commercialized their inventions through licensing agreements or outright sale to others.¹³ In addition, "inventors who license their inventions to others are more likely to achieve a higher level of sales than those who sell the rights to their inventions, or commercialize them only via their own company."¹⁴ However, because the Weick and Eakin study does not offer a conclusion or speculation as to which strategy is the most profitable, it is assumed that the decision as to which strategy an independent inventor chooses to pursue involves considerations associated with both the invention and the inventor.

Numerous books have been written by independent inventors describing their experiences, providing examples of their successful (and not so successful) inventions, and offering advice to aspiring independent inventors.¹⁵ As might be expected, each author tends to make a case for the style of inventing and commercialization strategy(s) that they have found to be the most successful. On the one hand, Merrick describes a subset of independent inventors that he

13. C.W. Weick & C.F. Eakin, *Independent Inventors & Innovation: An Empirical Study*, Entrepreneurship & Innovation, Feb. 2005.

14. *Id.*

15. See Robert G. Merrick, *Stand Alone Inventor!* (SNP Panpac Pte Ltd 2004); Don Kracke, *Turn Your Idea or Invention to Millions* (Allworth Press 2001); Maurice Kanbar, *Secrets from an Inventors Notebook* [inert page] (Penguin Group (USA) 2002).

classifies as “Stand Alone Inventors” and characterizes a “Stand Alone Inventor” as a person who “is willing to find out and do everything that is needed after the inventing to make it a success.”¹⁶ Merrick provides numerous examples of “Stand Alone Inventors” and advocates the view that direct sales of products is preferable to sales through licensing arrangements because the inventor retains both greater control and a greater fraction of the profits.¹⁷ On the other hand, Kracke advocates the view that licensing is the preferred strategy and gives examples of highly profitable licensing arrangements with large companies.¹⁸ Kracke argues that large companies can provide the independent inventor with an opportunity to tap into their capital reserves for business scale-up and access to their economies of scale for manufacturing, marketing, and distribution.¹⁹ Kanbar advocates engaging in a decision process in which questions and issues associated with both the invention and inventor are considered prior to deciding in favor of commercializing directly or in association with others.²⁰

In all three of the books written by successful independent inventors, U.S. and international patents are advocated directly or indirectly as the preferred form of intellectual property protection although, in most cases, in conjunction other forms of available intellectual property protection. Additionally, Åstebro performed a study entitled “Key Success Factors for R&D Project Commercialization” and identified intellectual property protection as one of the four critical success factors found to be most predictive of commercial success.²¹ However, it is a difficult matter to determine the relative value of U.S. and international patents to the independent inventor. The products of both Merrick and Kracke were sold internationally and both stated that international patent protection was obtained for their inventions.²² However, both had founded companies to commercialize their inventions and had generated

16. Robert G. Merrick, *Stand Alone Inventor!* (SNP Panpac Pte Ltd 2004).

17. *Id.*

18. Don Kracke, *Turn Your Idea or Invention to Millions* (Allworth Press 2001).

19. *Id.*

20. Maurice Kanbar, *Secrets from an Inventors Notebook* [inert page] (Penguin Group (USA) 2002).

21. Thomas Åstebro, *Key Success Factors for R&D Project Commercialization* (2003), http://www.rotman.utoronto.ca/bicpapers/pdf/03_07.pdf.

22. *See* Robert G. Merrick, *Stand Alone Inventor!* (SNP Panpac Pte Ltd 2004); Don Kracke, *Turn Your Idea or Invention to Millions* (Allworth Press 2001).

significant sales in the U.S. by the time funds were needed to pay for international patent prosecution.

Boomwhackers™: Case Study

In the case of Craig Ramsell's Boomwhackers™ percussion tubes, international patent protection was not pursued despite significant international sales.²³ The thinking behind Craig's decision not to pursue international patent protection is likely to be similar to that of other independent inventors because most conduct their business with similar resource constraints. The reasons for this should become evident as Craig's case is presented below.

In 1994, while taking out the trash, Craig Ramsell, an MIT grad, discovered he had a cardboard gift-wrap tube that was longer than local recycling regulations permitted.²⁴ Craig then cut the tube into two different lengths and, on a lark, whacked the pieces on his thighs. "I heard their different tones, and the light went off," says Ramsell.²⁵ "I figured if I could tune them, I could play music."²⁶ Ramsell's first tube was tuned to middle C.²⁷ That note, he found after some experimentation, could be produced with a tube that was 24.73 inches long and had a diameter of 1.75 inches. He then determined the lengths of tubing needed to produce other notes, using a mathematical formula that correlates pitch with a tube's diameter and the total distance that air moves through the tube. By the end of 1994, Ramsell had made six plastic tubes of varying lengths that played a half-dozen notes of the pentatonic scale. At that point Ramsell sought the help of a patent attorney in protecting his invention.

The first step in determining how to protect the invention involves identifying the forms of intellectual property protection that might be exploited for a particular invention, *i.e.* patents, copyrights, trademarks, and trade secrets. Due to the nature of this invention, trademarks and patents were identified as providing the best overall protection. As mentioned previously, successful intellectual property

23. Craig Ramsell, Privately Communicated case study published with permission of Craig Ramsell (2005).

24. *Id.*

25. *Id.*

26. *Id.*

27. Craig Ramsell, Privately Communicated case study published with permission of Craig Ramsell (2005).

strategies usually combine the various forms of protection available to weave a tight mesh of rights in the invention. Creating a recognizable brand and securing the invention with a patent were deemed to provide the most effective form of protection. A utility patent application was prepared and submitted to the U.S. patent office in 1994. At that time, a provisional patent application was not an option, but would have allowed the process of securing a patent to begin quickly and inexpensively, relative to the cost and effort attendant with the preparation and submission of a utility patent application.

The possibility of filing foreign patents was discussed. The decision to file foreign patents is difficult for individual inventors in part due to the expense involved in submitting and prosecuting such applications and in part due to the expense of enforcing the patent in a foreign country. While the patent applicant is entitled, by treaty, to wait up to one year from the filing of a provisional or utility patent application in the U.S. patent office, in this instance, a decision was made to rely upon the U.S. patent as protecting the initial and primary market for the invention. A further option, that of filing a relatively inexpensive Patent Cooperation Treaty (PCT) application to obtain an international search and optional preliminary examination of the invention, and to delay the decision to submit foreign applications an additional 18 months, was not pursued. U.S. trademarks, which are relatively inexpensive and easy to obtain (if well chosen), were relied upon as a basis for effective protection outside of the U.S., *e.g.* trademark rights could be obtained outside of the U.S., as necessary, based upon rights established in the U.S.

When preparing the patent application, both the structure of the invention and the manner in which it was used and constructed. This proved to be essential during prosecution of the application before the U.S. patent office. This information was developed by Ramsell and provided a basis for explaining the invention to the patent examiner, as well as for drafting patentable claims. United States patent no. 5,814,747 was granted in 1998.

As of 2005, Ramsell has sold more than 3.5 million of his percussion tubes, called Boomwhackers™ Tuned by length, the brightly colored tubes make music when struck with a mallet or on any surface, including parts of the player's body. Hit two tubes together, and you have harmony.

Boomwhackers™ are a favorite tool for music educators, with tens of thousands in use in schools across the U.S. Boomwhackers™ have also been named by Parents' Choice Foundation as one of the Best 25 Toys introduced in the past 25 years.

While the majority of sales are in the U.S., Boomwhackers™ are also sold in Australia, Belgium, Canada, Chile, China (Hong Kong), Denmark, England, Finland, France, Germany, Italy, Japan, Korea, Mexico, New Zealand, Portugal, Singapore, South Africa, Sweden, Switzerland, Austria and the Netherlands.

The Boomwhackers™ case study is representative of a significant number of other cases. As mentioned above, because the majority of sales occur within the U.S., a U.S. patent was clearly essential. However, outside of the U.S., the cost to obtain and maintain additional patents was not justified, particularly because some protection was provided by international trademarks.

Notwithstanding the above, U.S. patents have significant additional benefits. Under U.S. statute 35 U.S.C. § 271, competitors can be excluded from importing products that are made outside of the U.S. if the products infringe a single claim in a U.S. patent covering either the product itself or a process that is used to make the product.²⁸ A patent covering a process used in the manufacture of a product is particularly valuable because such a patent can be enforced even if the product itself is not patented in the U.S.

The Strategic Value of an “Option” to File Internationally

As previously mentioned and in the Boomwhackers™ case study, U.S. inventors are given a one year grace period from the date of disclosure to file a U.S. provisional or utility patent application in which to make a foreign filing decision. The one year grace period effectively provides a free one year option to test their invention. The inventor can thereby obtain a better understanding of the commercial potential of the invention. For resource constrained independent inventors, this essentially free one year option to file a patent application is quite valuable. Unfortunately, international filing rights depend on absolute novelty and are thus lost on the day of public disclosure, unless a U.S. patent application is filed prior to the public disclosure.

28. 35 U.S.C. § 271 (2005).

An inexpensive strategy for acquiring a one year option to file patents internationally is to file a U.S. provisional patent application. U.S. provisional patent applications are simpler and less expensive to file than full U.S. utility applications. Provisional patent applications are not required to have claims, formal drawings, and have no special formatting requirements. However, all of the disclosure required to support the utility application must be present in the provisional application, albeit in a rougher form. Once the provisional application is filed, the applicant is then given one year in which to file a PCT application or a U.S. application. Once a PCT or U.S. application is filed, the application is published 18 months following the original filing date. In the case of PCT applications, the applicant is allowed up to 30 months from the original filing date to file patent applications in any PCT member countries the applicant chooses.

There are at least three separate components of value associated with retaining an option to file patents in foreign countries. First, having an option to file foreign patent applications adds value to the invention in the eyes of the inventor, potential investors, partners, and other stakeholders. Second, for patents filed under the PCT, applicants receive the results of a novelty search and a written opinion, and may additionally request a preliminary examination which provides valuable information as to the likelihood of obtaining patent protection in PCT member countries. Third, during the option period, the inventor has time to assess the commercial potential of the invention and to use the information obtained from the preliminary search and examination to perform a cost benefit analysis for obtaining a patent in any specific PCT member country.

Impact of the Patent Reform Act of 2005, HR 2795²⁹

The Patent Reform Act of 2005 (the “Bill”), states as its official title that its purpose is “to amend title 35, United States Code, relating to the procurement, enforcement, and validity of patents.”³⁰ Ostensibly, the Bill seeks to harmonize U.S. patent law with current international practices *vis-à-vis* first-to-invent (as currently practiced in the U.S. system) versus first-to-file (as currently practiced throughout the world outside the U.S.).³¹ Of most interest (and

29. Patent Reform Act of 2005, H.R. 2795, 109th Cong. (2005).

30. The Patent Reform Act of 2005, H.R. 2795, 109th Cong. (2005).

31. *Id.*

concern) to individual inventors is the provision that the U.S. change its system to a first-to-file system.³² This provision will be discussed in some detail below. Other provisions of the Bill include a restatement of the duty of candor, *i.e.* the obligation of parties connected with the presentation of prosecution of a patent application to bring to the attention of the Patent Office prior art that may be of relevance to the examination of the patent; the right of the inventor to obtain damages and injunctions; the ability to file a series of continuation applications; and revisions with regard to the reexamination of patents after they are granted.³³ A detailed discussion of the Bill in its entirety is beyond the scope of this paper. As of the date of this paper, the Bill is in the Committee on the Judiciary in the U.S. House of Representatives.³⁴

Section 3 of the Bill concerns the right of the first inventor to file.³⁵ Initially, it should be noted that “first inventor to file” is a misnomer. While it can be argued that an invention may be made independently by more than one entity, the terminology chosen for the Bill is selected to make the Bill comport with the U.S. constitutional requirement that the right of a patent is granted to “inventors.”³⁶ A first-to-file system, as embodied by other patent granting agencies such as the European Patent Office, does not give the right to file to an inventor but to the owner of the invention. Thus, a critical distinction between the current U.S. system and other systems is that the U.S. requires that the application be filed in the name of the inventor, while other jurisdictions require that the application be filed in the name of the owner, although inventors are listed as well in these other jurisdictions. To reconcile the constitutional requirements that the patent be granted to “inventor,” the Bill seeks to create a hybrid right, *i.e.* a first-inventor-to-file right.³⁷

One of the most important concerns for an individual inventor is the affect the Bill, if adopted, would have on the current U.S. grace period.³⁸ As it currently stands, the inventor is entitled to a one-year grace period from the time the invention is first disclosed publicly or

32. *Id.*

33. *Id.*

34. The Patent Reform Act of 2005, H.R. 2795, 109th Cong. (2005).

35. *Id.*

36. U.S. Const. art. 1, § 8, cl.8.

37. H.R. 2795, 109th Cong (2005).

38. 35 U.S.C. § 102 (2005).

first offered for sale.³⁹ Prior art that is known publicly less than a year before the filing date is not applied against the patent application during the examination process.⁴⁰ Thus, an individual inventor may take time to investigate and produce a practical version of the invention before filing his patent application, without the fear of losing the right to obtain patent protection. Under the proposed scheme, the grace period would remain with regard to the acts of the individual.⁴¹ However, prior art of third parties, which was known publicly before the filing of the application in question would serve as a bar to patentability.⁴² This is a major change in the U.S. system. If this proposal were adopted, then the inventor would be at a risk anytime the invention was disclosed for fear that another individual might produce an invalidating publication which is derived from the inventor's own information. While the Bill attempts to address this by providing for resolution of conflicting inventions, this, in fact, merely substitutes the current practice of interference with the practice of conflict resolution with regard to inventors.⁴³ Thus, contrary to the statements of proponents of the Bill, interference practice is not eliminated, but merely renamed.

Under the provision of the Bill concerning invalidating prior art, the inventor is forced to submit at least a provisional patent application as soon as his idea is conceived. The submission of the provisional application being a constructive reduction to practice. Inventors who are not informed about the law and had engaged in activities that might disclose their invention publicly before filing their provisional application would therefore be at risk that the publication or prior submission of an application by another would invalidate their patent. If the inventor were to seek to establish derivation of their invention by the person making the publication or filing an earlier application, the inventor would be faced with a lengthy and expensive proceeding in the Patent Office which could be appealed to the Federal Courts. Under current practice, the inventor is given a full grace period that takes into account the fact that the inventor's ideas may defuse in society and may resurface before the inventor is able to file their application. The Bill would destroy this right.

39. *Id.*

40. *Id.*

41. H.R. 2795, 109th Cong. (2005).

42. *Id.*

43. *Id.*

Large companies, (e.g., Microsoft), have been touring with Patent Office officials as part of focus groups that discuss the Bill. Clearly, this legislation favors the interests of large corporations or they would not be actively supporting it. Compared to independent inventors and small companies, large corporations effectively operate as invention factories churning out literally hundreds, even thousands of provisional and non-provisional patent applications per year effectively flooding the Patent Office. The proposed first-to-file system would further shift the advantage to corporations that have the resources to file copious quantities of patent applications as soon as new ideas begin to surface within their industries. Individual inventors and small companies would be literally flooded out of the Patent Office by these applications.

In summary, the Bill appears to provide little or no benefit to individual inventors. Unlike large corporations, individuals or small companies cannot afford to file on all their ideas and may even lack the sophistication to understand the requirements of getting an early *i.e.* first, filing date under a first to file system. While a first to file system reduces uncertainty as to ownership and/or inventorship of an invention and therefore downstream legal risks, this is a much greater benefit to corporations than it is to independent inventors. Of most concern is that independent inventors would lose all rights if a corporation files first, even if the independent inventor has documented the idea in a notebook, maintained confidentiality, and been diligent in reduction to practice. This outcome would be clearly in direct conflict with purpose the U.S. patent system as envisioned by Jefferson et al.

One other point of interest to independent inventors about the proposed Bill is that of the opposition provision.⁴⁴ While this provision of the Bill is being positioned as a means of reducing the cost of litigating a patent, the effect is just the opposite.⁴⁵ Under the current scheme, issues regarding the validity of the patent and enforceability of the patent are settled during a court proceeding. Although there are forms of reexamination in the USPTO currently available, these are not often used. Under the proposed opposition proceeding, a form of litigation would take place in the Patent Office, including discovery, the taking of evidence, and the presenting of

44. *Id.*

45. H.R. 2795, 109th Cong. (2005).

arguments.⁴⁶ It is expected that such proceeding will be somewhat as expensive and similar to proceedings in court. Should one party be dissatisfied with the results of the opposition, the matter may be appealed to the Federal courts. Thus, rather than resolving the matter in one proceeding in a court, the matter is taken up in the USPTO and may again be taken up in the courts.⁴⁷ European practice, on the other hand, currently settles the issue in a compact and relatively straightforward proceeding. Thus, a further consideration for the independent inventor when considering an international patent strategy is the relative ease of determining issues of validity and enforceability in jurisdictions such as the European Patent Office.

At this time, it seems unlikely that the Bill will leave Committee, however, individual inventors should pay particular attention to the progress of this Bill and support advocacy groups as appropriate. Because the subject of this paper concerns International Patent Strategies for Individual Inventors, it is important to note that the strategies in the U.S. would change radically should the Bill pass. Therefore the best practices with regard to foreign patent systems, where independent inventors are not tracked, not offered a reduction in fees, not named as the party in interest on the patent application and, generally, not given any special consideration.

Regardless of the fate of H.R. 2795, independent inventor should maintain discipline with regard to lab notebook documentation and nondisclosure agreements to minimize the probability of loss of valuable patent rights. Under a first-to-file system, the provisional patent application would become essential at the earliest possible time within the cycle of creating the invention. The provisional application would serve as the priority document thus would secure a filing date for the individual. Since provisional applications may be submitted before an invention is completed or the best matter of practicing the invention is known, regular submission of provisional patent applications would serve to protect the independent inventor against the submissions of others. There is no limitation on the number of ideas that may be submitted in an individual application and therefore independent inventors can file on more than one idea for the cost of a single application. The preferred strategy would be to file a series of provisional applications throughout the invention cycle.

46. *Id.*

47. *Id.*

Summary and Conclusions

In summary, there are three broad classes of international patent strategies available to independent inventors. Elements of each of the three classes may also be combined depending on each specific situation.

First, the independent inventor may decline to pursue international patents and instead rely solely on U.S., or other country of origin, if applicable, patents and international trademarks and copyrights. This strategy is used by many independent inventors because it is relatively simple, cost effective, and the most straightforward to enforce.

Second, the independent inventor may choose a strategy, through filing under the PCT, which preserves the option to file in the U.S. and internationally while delaying the expense and decision to file patents until a future time. Although this strategy is the least expensive initially, the disadvantage is that it takes longer before issued patents are obtained. While international patent filings are required to conform strictly to the original PCT filing, *i.e.* no new matter is allowed, a potential advantage of this strategy is that new matter, *i.e.* improvements made to the invention during the option period, can be incorporated into future U.S. filings without a significant increase in cost. This is accomplished by filing the U.S. version of the PCT filing as a continuation-in-part including the improvements.

Third, the independent inventor may choose to file and prosecute patents immediately in the U.S. and any designated foreign countries. This strategy is the most expensive but minimizes the time delay until issued patents are obtained and therefore can be enforced. A disadvantage of this strategy is that additional filings are required to cover improvements to the invention that are made after the initial filing date.

In conclusion, independent inventions from the U.S. may choose to implement any one or combinations of the above three international patent strategies. Independent inventors having countries of origin other than the U.S. can also benefit from filing under the PCT although the prevailing patent laws do not allow them the same one year grace period that is provided to independent inventors in the U.S. Furthermore, they are not given the opportunity to file provisional patent applications in their countries of origin.

We have discussed some of the implications to independent inventors of HR 2795, the Patent Act of 2005. If this Bill should pass and the U.S. adopted a first-to-file system, the provisional patent application would serve as the priority document and therefore should be filed at the earliest possible time. Independent inventors should nonetheless maintain discipline with regard to lab notebook documentation and nondisclosure agreements to minimize the probability of loss of valuable patent rights.

The authors would have liked to have examined and reported on independent inventor statistics from countries other than the U.S. but unfortunately, but we were not able to gain access to such statistics from the websites of WIPO, the EPO, or the JPO. We believe that more attention should be brought toward developing an understanding of the impact of the present inequitable treatment afforded to academic and independent inventors under current international patent systems. A good first step would be to track (via statistics) the activities of independent inventors in both the U.S. and internationally (with common statistical measures) to promote a better understanding of the current situation and the development of proposals to encourage their contributions to the useful arts and sciences while maintaining the full value and utility of patents to the corporate community.

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