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An Overview of the Pros and Cons of Provisional Patent Applications

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I. INTRODUCTION

¶1 In 1994, Congress enacted the Uruguay Round Agreements Act (URAA)[1] in an effort to bring the United States into conformance with international patent standards and "place domestic applicants on an equal footing with foreign applicants."[2] The URAA introduced substantial changes in U.S. patent law. One of the most significant changes was the amendment of 35 U.S.C.A. § 111 (West 1994) to allow inventors (both domestic and foreign) to file a special application: the provisional patent application.[3]

¶2 In the years following ratification of the URAA, much has been written about the various nuances and intricacies of filing provisional patent applications in the United States. In the midst of this voluminous discourse, it has been difficult for the conscientious practitioner to determine exactly what to say to a client who asks, "Should *I* file a provisional application?" The purpose of this Note is to provide a quick and practical guide to the benefits and shortcomings of filing provisional patent applications, including the use of provisional applications as part of an overall patent filing strategy. Part II will provide a brief overview of provisional applications and how they differ from non-provisional applications. Part III will evaluate the benefits of filing provisional applications. Part IV will discuss the disadvantages, including potential pitfalls for the unwary. Finally, some general conclusions will be drawn in Part V regarding the use of provisional applications.

II. PROVISIONAL PATENT APPLICATIONS

¶3 The purpose behind the creation of the provisional application was to eliminate a disparity in effective patent terms between domestic and foreign inventors filing for patents in the United States.[4] Under the Paris Convention, the United States is required to grant inventors a patent term of twenty years, running from the date of their U.S. filing.[5] The Paris Convention further dictates that foreign inventors have up to one year, following their first foreign filing, to file for a patent in the United States.[6] Thus, domestic inventors filing in the United States are disadvantaged because foreign applicants can effectively obtain twenty-one years of patent protection, measured from their first foreign filing date, while domestic inventors are limited to twenty years. The provisional application introduced by the URAA seeks to eliminate the disadvantage faced by domestic inventors.[7]

¶4 The URAA allows inventors to take advantage of an earlier filing date through a provisional application without having to file a complete patent application for a period of up to twelve months.[8] According to this new scheme, certain aspects of the patent, such as priority,[9] prior art,[10] and

statutory bars,[11] will be measured from the date of the provisional application. However, the clock on the twenty-year patent term will not start running until the non-provisional application is filed. Therefore, provisional applicants have up to one "free" year to develop, use, and market their products without diminishing their twenty-year patent term. This effectively gives domestic inventors an opportunity to obtain twenty-one years of U.S. patent protection, thus putting them on par with foreign applicants.

¶5 Provisional applications are different from non-provisional applications in several important ways. Non-provisional applications must satisfy the requirements of 35 U.S.C.A. § 112, first paragraph[12] (written description of invention), § 112, second paragraph[13] (carefully drafted claims), and § 113[14] (relevant drawings). Applications must also be accompanied by a sworn oath from each applicant, attesting to his or her status as a bona fide inventor, an information disclosure sheet listing all known prior art, and the statutory filing fee.[15] The filing fee may range from $250 to several thousand dollars, depending on the applicant's business status (i.e. large or small entity) and the number and type of claims sought. Non-provisional applications are assigned to a U.S. Patent and Trademark Office (PTO) examiner, who is generally a person knowledgeable in the technical field of the invention. After a lengthy process that often resembles negotiation between the applicant and the examiner, a patent will issue if merited by the scope of the invention.

¶6 The requirements for filing a provisional application are more relaxed than those for non-provisional applications. Provisional applications need not contain an oath of inventorship or a claim under 35 U.S.C.A. § 112, second paragraph. Additionally, these applications are not evaluated by a PTO examiner. Instead, they are reviewed by the PTO Application Division to ensure they meet PTO standards of formality and *appear* to meet the minimum requirements of 35 U.S.C.A. § 112, first paragraph, and § 113. The lack of PTO analysis makes provisional applications relatively inexpensive to file, with fees currently set at $75 for small entities and $150 for others.

III. Why File a Provisional Application?

A. *Extended Patent Term*

¶7 The most obvious advantage of filing a provisional application is that the statutory patent term may be extended up to one year. Although not every patent remains valuable throughout the entirety of its term, those that do, such as pharmaceutical and chemical patents, tend to be very valuable towards the *end* of their terms, when consumer demand and product marketing are most mature. For these types of patents, the benefits provided by the use of a provisional application may ultimately be worth billions of dollars.

B. *Useful One-Year Delay*

¶8 The filing of a provisional application allows inventors to reserve an early filing date and gives him or her one year in which to follow up. This provides an excellent opportunity for an undercapitalized inventor to seek investors or other financial assistance for the upcoming prosecution process. It also affords security to those inventors who wish to disclose their inventions to prospective licensees or purchasers. The interim period further contributes to these marketing and venture capital efforts by deferring the heavy up-front application and legal expenses. Finally, even for large companies that neither plan to license their patent nor need financial assistance, the one-year delay provides extra time to develop the product so as to better target the patent claims toward the best commercialized version of the invention.

C. *Earlier § 102(e) Prior Art Date*

¶9 The U.S. patent system is based on a first-to-invent model rather than a first-to-file model, as most other countries have. Thus, if two inventors file applications claiming the same invention, the patent will issue to the earlier inventor, unless he or she was not diligent in reducing it to practice.[16] However, proving priority, whether in an interference proceeding[17] or in a patent infringement suit, is always a difficult and expensive process that should be avoided whenever possible.

¶10 One way an inventor can minimize the chances of a priority contest is to file his or her application as soon as possible after invention. Under 35 U.S.C.A. § 102(e), a patent will not issue to inventor B if the claimed invention was already described by inventor A in a patent application filed earlier than inventor B's claimed date of invention. As soon as A's patent application is filed, it becomes prior art and, as such, bars all subsequent applications for the same subject matter. In short, the earlier an inventor's patent application is filed, the less likely a costly legal action will be required to establish priority of invention, either before or after the patent issues.

¶11 For patents claiming the benefits of a provisional application, the critical date for § 102(e) prior art is the filing date of the provisional application.[18] Because of its relaxed standards, a provisional application can be drafted very soon after the invention is completed without having to include background of the invention, inventors' oaths, or claims. If further experimentation leads to new developments, additional provisional applications may be filed.[19] Consequently, provisional applications can be a useful tool in achieving an early § 102(e) prior art date for an invention.

¶12 For domestic inventors, the benefits of an earlier prior art date extend not only to their U.S. filings, but to their international filings as well. Unlike the United States, most countries have a first-to-file patent system in which priority is given, not to the first inventor, but to the first person to register the invention with a patent office. Thus, an early U.S. filing date through a provisional application facilitates establishing priority worldwide.

¶13 Foreign inventors can also take advantage of the earlier prior art date afforded by provisional applications. Since patent applications filed outside the United States do not count as prior art for § 102(e) purposes,[20] it is advantageous for a foreign inventor to file a provisional application in the United States at the same time as his or her foreign applications. The cost is minimal, yet it allows the inventor to take advantage of the one-year filing delay authorized by the Paris Convention (thus maximizing the patent term) while still establishing a § 102(e) prior art date in the United States on the date of the first foreign filing. This earlier § 102(e) prior art date decreases the chances of a costly interference brought by a competing inventor.

¶14 Some commentators suggest filing a provisional application immediately after conception[21] in order to obtain the earliest possible prior art date. [22] Although the specification may be speculative at this early stage, additional provisional applications can be submitted as the reduction to practice continues. However, as will be discussed later, this and similar strategies may create potential problems if litigation later arises as to the validity of the patent.[23] In particular, this practice will tend to create a "thick file," which may prove to be a bountiful hunting ground for future litigants seeking to find evidence of narrow claim coverage.

D. *Constructive Reduction to Practice*

¶15 In addition to creating prior art, a provisional application has the effect of signaling reduction to practice of an invention. Reduction to practice occurs when an inventor converts his idea into operative form that is capable of being recreated by others skilled in the art. *Constructive* reduction to practice is a term of art that refers to the invention being adequately described in a patent application such that one skilled in the art is enabled to practice it. Hence, a legal presumption is created that the invention was reduced to practice *no later than* the filing date of the application

(though it does not preclude arguments that reduction to practice occurred *earlier* than the filing date).

¶16 The reduction to practice signaled by a provisional application has important ramifications for litigants in patent disputes. An earlier constructive reduction to practice date provides significant advantages. For instance, in an interference proceeding to determine who is the first inventor, the party who has the earliest constructive reduction to practice becomes the senior party and thus shifts the burden onto the other party to show entitlement to an earlier date.

¶17 Note that even if a provisional application is insufficient to support the claims of a subsequent non-provisional application, it may be sufficient to establish constructive reduction to practice, either alone or in conjunction with other evidence.[24] For example, several provisional applications may be used to show that certain *elements* of a later-filed non-provisional application were constructively reduced to practice on certain dates, even if the subsequent non-provisional application turns out to be broader in scope than any of the individual provisional applications. This lends weight to the theory that a provisional application should be filed as soon as possible after conception, even if the specification turns out to be non-supportive of the claims.

E. *Extended Grace Period*

¶18 Under 35 U.S.C.A. § 102(b), an inventor is barred from obtaining a patent if the invention was patented or described in a printed publication anywhere in the world, or if it was placed on sale or in public use in the United States more than one year prior to the date of application. The one-year grace period of § 102(b) is a very important element of the U.S. patent system and is often the subject of litigation. Since inventors frequently use this grace period to test-market their inventions, generate sales, and gear up production, there is always a risk that they will wait too long to file their application. Later, when the patent is challenged in court, the fact that § 102(b) activities had been engaged in beyond the grace period may lead to the patent being held invalid.

¶19 A provisional application reduces this risk by fixing the end of the one-year grace period. Accordingly, the earlier a provisional application is filed, the earlier in time a § 102(b) activity could have occurred without barring the patent. This essentially allows the inventor up to two years in which to engage in § 102(b) activities before the non-provisional application is filed: one year of statutory grace period plus up to one year of delay after the provisional application is filed.

¶20 Foreign inventors can also benefit from the interaction between provisional applications and the grace period. Because publication *anywhere in the world* more than one year prior to application will bar a U.S. patent, some foreign applicants were forced in the past to file in the United States *before* their authorized Paris Convention year had expired in order to avoid a § 102(b) statutory bar. Now they can simply file a provisional application in the United States at the same time they file their foreign application. This will extend their grace period in the United States back one year, allowing them to fully utilize their Paris Convention year and maximize their effective U.S. patent term.

F. *Absolute Novelty Worldwide*

¶21 Unlike the United States, most countries require absolute novelty as a prerequisite to patent protection. In other words, they do not have a grace period such as the one provided in § 102(b) that would allow an invention to be used, sold, or published prior to application. In these countries, *any* disclosure of an invention prior to application is a bar to patentability. Thus, it is critical for U.S. inventors who intend to seek patent protection in these countries not to rely on the grace period allowed in the United States under § 102(b).

¶22 Provisional applications provide a cheap and easy way to preserve absolute novelty worldwide by securing a U.S. filing date *before* any § 102(b) activity takes place. For instance, just prior to announcing the invention at a trade show, the inventor can quickly file a provisional application encompassing the content of the trade show presentation. Inventors must be careful, however, to ensure that the specification fully encompasses whatever information is going to be publicly disclosed regarding the invention. One way to do this is to make copies of all pre-disclosed materials, to attach a provisional application cover sheet, and to file it with the PTO just prior to disclosure.[25]

IV. The Downsides of Provisional Applications

¶23 Despite the many advantages listed above, provisional applications may also have some disadvantages of which inventors should be aware. In considering application strategies, inventors should carefully study both the pros and cons of provisional applications and decide whether provisional applications are right for them.

A. *Increased Cost of Application*

¶24 Although provisional applications require only a small filing fee, they do involve preparation time, both on the part of the inventor and his or her attorney.[26] This will add to the cost of filing a provisional application. Also, since many of the strategies that have been suggested in the literature involve the filing of multiple provisional applications, this cost will likely be repeated several times before the non-provisional application is ultimately filed. Consequently, the use of provisional applications will *always* cost more than simply filing a non-provisional application. The difference, of course, is that some (or most) of the application and legal costs may be deferred up to one year while the provisional application is in effect.

¶25 For some patents, the benefits of filing a provisional application might not outweigh the additional costs. For instance, the inventor of a product, in a non-crowded field of art, which is projected to have a valuable lifetime of five to seven years, may choose not to incur the additional costs of a provisional application because for him or her it offers no additional benefits.

B. *Proximity of International Filing*

¶26 To obtain the benefit of the filing date of a provisional application, a non-provisional U.S. application must be filed within one year of the provisional application. The same is also true for international filings by U.S. inventors. Under the Paris Convention, if a U.S. inventor seeks to extend the benefits of the earlier filing date of a provisional application to an international application, he or she must do so *before* the non-provisional application is filed in the United States.[27]

¶27 Consequently, an inventor who files a provisional application in the United States and expects it to be followed within a year by a non-provisional application should also be prepared to incur the expense of filing abroad during that same year. Unlike an inventor who only files a non-provisional application and follows up with international filings a year later, the provisional applicant may have to incur the expense of the non-provisional U.S. application and the international filing at approximately the same time, a situation that some entities might not be prepared to endure.

C. *The Risk of a "Thick" Application*

¶28 Perhaps the most significant risk of engaging in a strategy of filing multiple provisional applications is the creation of a "thick" patent application. Although a provisional application does

not (necessarily) contain claims and is not analyzed, it nevertheless will become an official part of the prosecution history[28] of any non-provisional application that grows out of it.[29]

¶29 Prosecution history has become an increasingly important factor in patent litigation. Traditionally, prosecution history estoppel was a technique used by defendants in patent infringement suits to preclude the patent owner from arguing a construction of a claim that would "resurrect" subject matter surrendered during the prosecution of the patent. In theory, when a patent applicant narrows his or her claims to avoid prior art and the PTO capitulates to this narrowed claim construction,[30] the patentee is thereafter barred from arguing in court for a broader construction.

¶30 Recent decisions by the Supreme Court and the Federal Circuit have emphasized the importance of prosecution history and expanded its use. In *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*,[31] the Supreme Court reiterated the classic rule of prosecution history estoppel as it applies to the doctrine of equivalents.[32] In addition, the Court held that even where the record does not indicate a reason for a change made during prosecution, there is a rebuttable presumption that it was made to avoid prior art.

¶31 In *Markman v. Westview Instruments, Inc.*[33] and *Vitronics Corp. v. Conceptronic, Inc.*,[34] the Court of Appeals for the Federal Circuit held that prosecution history can be used as evidence in a court's legal interpretation of patent claims. In doing so, a court may look not only at the claims of the application, but also to the specification and to any oral or written representations made to the PTO. A recent public hearing held by the PTO indicated a strong inclination towards even more detailed record keeping to preserve prosecution histories as evidence of patent scope and validity.[35]

¶32 As the above discussion indicates, inventors should be very careful about what information is included in the prosecution history of their patent. In the event of litigation, every detail of the history may become important and any improvident inclusions could be disastrous.

¶33 Although it is not clear at this time how provisional applications will be treated by courts and litigants in patent infringement suits, they will probably be treated very much like non-provisional (parent) applications. Thus, challenges will likely arise as to the sufficiency of the written specification, the enabling language,[36] and the best mode[37] disclosed in the provisional application. There may also be questions as to whether the specification of the provisional application fully supports the pertinent claims of the issued patent.

¶34 Other challenges may arise relating directly to the substance of the patent's prosecution history. If, for example, a parent application relies on the filing date of a provisional application containing a very broad enabling description of the invention, but the claims of the parent application are narrower in scope than the specification, the residue may be held to have been abandoned. Future attempts by the patent owner to exert broader rights under the doctrine of equivalents will likely be blocked, either by the doctrine of prosecution history estoppel or through the theory of dedication.[38]

D. *Potential Loss of Trade Secrets*

¶35 Another downside of the provisional application strategy is the risk of disclosing too much information. Because a provisional application must include an enabling description of the invention and its best mode, there may be a tendency at the early stages of development to disclose more than is ultimately necessary to support the claims.

¶36 Once a non-provisional application invokes a previously filed provisional application, the *entire* specification of the provisional application is included. When the patent issues, that information becomes publicly available. Since anything that is disclosed in the specification but not claimed in

the regular application is dedicated to the public, many potentially valuable trade secrets may be lost.

¶37 A similar problem occurs when several provisional applications are filed prior to the non-provisional application, during which time a superior embodiment of the invention is discovered. Although the Federal Circuit has ruled that the best mode disclosure of a parent application does not need to be updated in a subsequent continuation application that includes no new subject matter,[39] this rule does not apply to a series of provisional applications. Because provisional applications cannot reference previous applications, whatever best mode exists at the time each provisional application is filed must be disclosed. This may be undesirable if the inventor prefers to keep a particular embodiment of the invention a trade secret.

E. *Other Considerations*

¶38 In addition to the advantages and disadvantages noted above, there are also a number of pitfalls of which applicants should be aware. For instance, it may be difficult to determine which inventors must be named on a provisional application. If none of the inventors named in the provisional application actually carry forward to the non-provisional application, then the benefit of the earlier filing date may be lost. Similarly, if the disclosure of the provisional application is not broad enough to support the claims of the non-provisional application, then the earlier filing date may be lost with respect to the unsupported claims.

V. CONCLUSION

¶39 Provisional applications offer numerous benefits for both domestic and foreign applicants. However, the value of these benefits varies depending upon the nature of the invention and the specific needs of the applicant. In addition, there are some risks associated with provisional applications that should not be overlooked. While certain techniques can be used to avoid many of these risks, it should be clear from the above discussion that provisional applications should not be filed unnecessarily or haphazardly. Notwithstanding their potential disadvantages, provisional applications provide a new, useful tool to inventors.

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1 Pub. L. No. 103-465, 108 Stat. 4908 (1994) (codified as amended in scattered sections of 19 & 28 U.S.C.A. (West Supp. 1998)).

2 Changes to Implement 20-Year Patent Term and Provisional Applications, 60 Fed. Reg. 20,195, 20,205 (1995) (to be codified at 37 C.F.R. pt. 1 & 3).

3 Uruguay Round Agreements Act § 532(b) (West Supp. 1998).

4 *See* Charles E. Van Horn, *Practicalities and Potential Pitfalls When Using Provisional Patent Applications*, 22 AIPLA Q.J. 259, 262-63 (1994).

5 Paris Convention for the Protection of Industrial Property, July 14, 1967, art. 4bis(5), 21 U.S.T. 1583, 1636.

6 *Id*. at 1632.

7 Those applying for design patents may not take advantage of provisional applications and the extra year of protection they offer. 35 U.S.C.A. § 172 (West Supp. 1998). A design patent is a special type of patent that applies only to ornamental designs. An example would be a design patent on a stylized sneaker that claims the unique shape and markings of the shoe.

8 *See* 35 U.S.C.A. § 119(e) (West Supp. 1998). The non-provisional application must incorporate the earlier provisional application. *See id*.

9 The priority date refers to the date on which the subject matter of the patent was first invented by the applicant.

10 Prior art refers to all materials, pertaining to the field of the invention, published before the date of application.

11 The U.S. patent law system contains several statutory bars, which prevent inventors from obtaining patents on otherwise meritorious inventions. For instance, if an inventor waits more than a year after publishing the details of his invention before he applies for a patent, his application will be barred under 35 U.S.C.A. § 102(b) (West 1994).

12 "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention." 35 U.S.C.A. § 112 (West 1994), first paragraph.

13 "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C.A. § 112 (West 1994), second paragraph.

14 "The applicant shall furnish a drawing where necessary for the understanding of the subject matter sought to be patented." 35 U.S.C.A. § 113 (West 1994).

15 *See* 35 U.S.C.A. § 111 (West 1994).

16 *See* 35 U.S.C.A. § 102(g) (West 1994).

17 An interference proceeding is a mechanism through which priority disputes are settled between two or more parties. The rules and procedures for interferences, which are often described as arcane, have their roots in ancient common law pleadings.

18 *See* Changes to Implement 20-Year Patent Term, 60 Fed. Reg. 20,195, 20,206 (1995) (responses to comments 14 and 15).

19 However, each provisional application stands on its own; therefore, each claim of the non-provisional application will only be entitled to the filing date of a provisional application which fully encompasses that claim.

20 *See* 35 U.S.C.A. § 102(e) (West 1994) (stating that a person will be entitled to a patent unless "the invention was described in a patent granted on an application for patent by another filed *in the United States* before the invention thereof by the applicant for patent.") (emphasis added). Thus, foreign-filed patents are not applicable to the § 102(e) bar (though they are applicable to the § 102(b) bar).

21 Conception is the point at which the idea for the invention is first dreamed up. Invention does not technically occur until the idea has been sufficiently reduced to practice.

22 *See, e.g.*, Peter Dilworth, *Some Suggestions for Maximizing the Benefits of the Provisional Application*, 78 J. PAT. & TRADEMARK OFF. SOC'Y. 233 (1996).

23 *See infra* Part IV.C.

24 *See* Van Horn, *supra* note 4, at 277.

25 *See id*. at 301.

26 Although provisional applications are described as informal, they nevertheless will become part of the prosecution history of any patent that claims their benefits. Therefore, it is important that a patent attorney always be consulted prior to filing a provisional application.

27 *See* Paris Convention, *supra* note 5, art. 4(C)(4) ("A subsequent application concerning the same subject as a previous first application . . . shall be considered as the first application . . . [and the] previous application may not thereafter serve as a basis for claiming a right of priority.").

28 Prosecution history is the written record of correspondence, oral interviews, and other interactions between the applicant and the PTO. This includes the originally filed application and all amendments and modifications that are subsequently made to it.

29 This assumes that provisional applications will be treated the same as non-provisional (parent) applications when referenced by continuation applications. *See* 4 DONALD S. CHISUM, A TREATISE ON THE LAW OF PATENTABILITY, VALIDITY, AND INFRINGEMENT § 18.05, at 151 n.1 (1995); *see also* Dilworth, *supra* note 22, at 238 n.13.

30 Claim construction is the manner in which a patent claim is construed; it determines how broadly or narrowly the claim will be enforced by a court. A broader claim allows the patentee to exert his patent over many more potentially competing products.

31 117 S. Ct. 1040 (1997).

32 The doctrine of equivalents is a judicially created rule that sometimes allows a patentee to assert coverage over a process or device that is equivalent in form, function, and purpose to that which was explicitly claimed.

33 52 F.3d 967 (Fed. Cir. 1995), *aff'd*, 116 S. Ct. 1384 (1996).

34 90 F.3d 1576 (Fed. Cir. 1996).

35 *See Hearing Looks at PTO Procedures for Recording Patent Prosecution History*, 55 PAT. TRADEMARK & COPYRIGHT J. (BNA) No. 1352, at 62-63 (Nov. 20, 1997).

36 Enabling language refers to the question of whether the specification adequately describes the invention so as to enable one skilled in the art to practice it.

37 Under 35 U.S.C.A. § 112 (West 1994), first paragraph, an inventor must disclose in the specification the best mode of his invention known at the time of application. Thus, he must explain to the public the most effective way to implement his invention.

38 *See, e.g.*, Unique Concepts, Inc. v. Brown, 939 F.2d 1558, 1562-63 (Fed. Cir. 1991) ("It is also well established that subject matter disclosed but not claimed in a patent application is dedicated to the public.").

39 *See* Transco Prods., Inc. v. Performance Contracting, Inc., 38 F.3d 551, 558 (Fed. Cir. 1994).