An Inventor's Guidelines for Preserving Patent Rights

The patent laws of the U.S. and other countries offer powerful protection for the intellectual property one creates – but they also come with unexpected pitfalls that could lead to misfortune.

by Ross Dannenberg

INTELLECTUAL PROPERTY, or IP, generally refers to patents, copyrights, trademarks, and trade secrets.[1] IP, unlike real property – land with a house, for example – is intangible in form. One cannot hold it, and it cannot be seen it until it is manifested in some specific article. For example, a book manifests a copyright, a logo manifests a trademark, and an article of manufacture manifests a patented invention.

Intellectual property laws are the means through which the United States allows creators and inventors to protect their ideas, innovations, and hard work; *i.e.*, patents can be said to protect ideas, trademarks can be said to protect reputations and hard work, and copyrights can be said to protect artistic expression.

Most engineers and software developers are at least familiar with the term "intellectual property," but might not fully appreciate the advantages that inhere in its protection. Intellectual property laws give the owner of the IP, whether patent, copyright, or trademark, a *legal monopoly* to prevent others from exploiting the protected creation. However, without intending to be careless, one might inadvertently perform an action that might result in an accidental loss of rights to some or all of one's intellectual property. It is also possible that unless certain steps are taken to protect intellectual property before a given deadline, an accidental loss of rights to some or all of one's intellectual property may occur.

It is particularly easy to inadvertently compromise one's patent rights. Although the date on which an inventor conceives of a new idea can be important, protection does not exist until a patent issues, and the inventor might inadvertently dedicate his or her invention to the public, *i.e.*, permanently lose patent rights, if certain actions are or are not taken within specific time limits.

On the other hand, copyrights, and to a lesser extent trademarks, are easily formed and maintained. A copyright begins automatically when the creator of the copyrighted article fixes his or her creation in a tangible medium, *i.e.*, puts pen to paper, brush to canvas, stores a computer program to a disk, *etc.* Thus, even though the author of this article has not registered a copyright for it, this article is automatically protected from copying and redistribution under U.S. copyright laws. Limited trademark rights also begin automatically when a person or company begins using a trademark in commerce.

This article will present an introduction to actions that inventors should and should not perform, and will present general guidelines for inventors so that they do not inadvertently lose some or all of their patent rights.

Inadvertent Disclosures

The United States patent laws define three primary disclosure actions that might have adverse consequences on an inventor's patent rights.[2] Each of the following three actions discussed below triggers a 1-year window, or "clock," during which a patent application must be filed in order to preserve rights to the invention. If a patent application is not filed within the 1-year window, the invention

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Any opinions expressed herein are opinions of the author and should not be attributed to Banner & Witcoff. Every scenario pertaining to intellectual property is necessarily fact specific. This article is intended only to provide an introduction to and general information regarding intellectual property, and is not intended and does not include a complete discussion of every exception and nuance of the United States patent laws and court decisions regarding these issues. This article should not be relied upon as legal advice for any specific situation, but rather should alert the reader to recognize when to seek legal advice regarding a specific scenario. This article does not and is not intended to create an attorney–client relationship with anyone.

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becomes public domain, and the inventor will lose U.S. patent rights, and most foreign patent rights, to an otherwise patentable invention. For example, if one of the following three disclosure actions is performed on January 1, 2003, then a patent application for the invention must be filed by January 1, 2004, in order to preserve rights to the invention.

The On-Sale Bar. A 1-year clock is started when an invention is placed *on sale*, also referred to as an offer for sale, *in the United States*. After 1 year from an on-sale event, an applicant is permanently barred from claiming the invention in a U.S. patent application. An actual sale is not required. Courts have defined this to mean that the invention, more than 1 year prior to the date of the patent application, must have been the subject of a commercial offer for sale, and must have been "ready for patenting" at the time of the commercial offer for sale.

An invention is ready for patenting when there has been actual reduction to practice of the invention, *i.e.*, a working prototype has been made, or when the inventor has prepared drawings or other descriptions of the invention that are sufficiently specific to enable a person of ordinary skill in the art[3] to practice the invention. The invention placed on sale[4] becomes what is referred to as "prior art" that can be used by the United States Patent and Trademark Office (USPTO) against the patent application.

For example, if Acme, Inc., places an invention having elements A, B, and C on sale on January 15, 2003, but does not file a patent application for the invention having elements A, B, and C until January 16, 2004, then Acme, Inc., is barred from obtaining a patent on the invention having elements A, B, and C. However, if Acme, Inc., places an invention having elements A, B, and C on sale on January 15, 2003, makes subsequent improvements to the invention, and files a patent application on January 16, 2004, for an invention having elements A, B, C, and D, the prior offer for sale of the invention having elements A, B, and C will not automatically bar Acme, Inc., from obtaining a patent on the invention having elements A, B, C, and D. It is worth noting, however, that the sale of the invention having elements A, B, and C can still be used by the USPTO as a basis for arguing that A, B, C, and D is obvious to one of ordinary skill in the art once he or she knows about elements A, B, and C, thereby rejecting the Acme patent application. Thus, it is safest to always file a patent application prior to making any offer for sale, or at the very least within 1 year of the first offer for sale of any embodiment of an invention.

The Public-Use Bar. Any public use[5] of an invention *in the United States* also starts a 1-year clock. A public use can include *any* use of the invention, even if secret, by a person other than the inventor who is under no obligation of secrecy to the inventor. A public use by the inventor himself or herself will also constitute a public use. Only a private use by the inventor himself or herself is not a public use as defined by the patent laws.[6]

Any public demonstration – at a trade show, for example – or any public use by someone other than the inventor, not subject to a non-disclosure agreement (NDA) or other obligation of secrecy, is a public use. A public use can also include a secret public use. In fact, very little use and very little publicity are required to constitute a public use. A public use only requires that the invention be used in its natural and intended way, even if hidden. This includes, for example, a secret use in a factory not open to the public, where the invention is used to produce publicly available commercial goods. For example, if Acme, Inc., demonstrates a computer at a trade show and the computer uses the invention – a computer chip in the computer that increases processing speed, for example – then the demonstration is a public use regardless of what is demonstrated on the computer (arguably even if the demonstration is of an e-mail application or other application that does not use the benefits of the invention) and regardless of whether the audience actually sees or knows about the chip itself.

Even though public uses of inventions are sometimes difficult to prove and easy to conceal, registered patent attorneys and patent agents are bound by ethical obligations to disclose any such relevant activities known to them, or anyone else involved in a patent application, to the USPTO. This duty of disclosure continues until the application issues as a patent. Thus, whenever possible, an inventor should file a patent application before publicly using the invention as discussed above. Otherwise, the inventor should confirm that everyone to whom the invention is demonstrated is subject to a non-disclosure agreement (NDA), and at a minimum should file a patent application within 1 year of publicly using or demonstrating the invention to anyone not subject to an NDA.

Printed Publications. A printed publication *anywhere in the world* can also start a 1-year clock measuring a time period within which a U.S. patent application must be filed.[7] A printed publication, obviously, must be printed and be a publication, and it must also contain a sufficient description of the invention; *i.e.*, the description must be adequate such that it enables a person of ordinary skill in the art to make and/or use the invention.

In order for a printed publication to constitute a publication, it must be circulated and accessible to the public to some extent. Printed publications include printed patents, periodicals, journals, books, newspapers, magazines, and the like. Printed publications can also include white papers, Web sites, trade catalogs, conference papers, and other printed papers that are distributed or available to the public to a lesser extent. If a work is directed towards those of ordinary skill in the relevant art, very little circulation and very little permanency are required in order for the work to constitute a printed publication.

For example, if a conference paper describing the invention is distributed at a conference, and the conference is attended by those of ordinary skill in the art of the general subject matter of the invention, then that conference paper might be considered a printed publication according to U.S. patent laws, and can be used as prior art against a patent application filed more than 1 year after the date of the conference paper. Similarly, a single copy of a doctoral thesis located in a library of a remote college or university in a faraway country can constitute a printed publication as long as the doctoral thesis is cataloged by the library and is available to the public.

Patent attorneys, patent agents, inventors, and anyone else substantively involved in the patent-application process are under a duty to disclose prior art to the patent office, which includes any relevant printed publications. Thus, the safest course of action is to prepare and file a patent application as soon as possible, and in any event before the inventor (or an entity related to the inventor) produces any printed publication regarding the invention. At a minimum, a patent application should be

filed within 1 year of the date of the printed publication in order to preserve patent rights.

Inadvertent Oversights

When an inventor or company receives a patent, it is natural to want to try to exploit the patent by forcing infringers to pay the patent owner for a license to use the patent. In the event that enforcement of the patent results in litigation, which occurs more frequently when the invention protected by the patent is commercially successful, various dates and facts pertaining to the invention become extremely important, even to the extent that a case can be won or lost based on the availability of the following information.

Conception. Most countries' patent laws provide patent rights to the first person who files a patent application for an invention. These countries are referred to as first-to-file countries. The United States patent laws, however, provide patent rights to the first person who actually invents a specific invention. The United States is thus referred to as a first-to-invent country. Obviously, a key date on which patent rights can thus hinge is the date on which an inventor originally conceived of his or her invention, regardless of whether the invention was actually implemented or working at that time.

Because of the potential importance of the date of conception, every inventor should keep accurate records of the date on which an invention is conceived. An example of evidence of conception might be a developer's or engineer's notebook describing the inventive idea, signed and dated by a second individual, preferably someone who has no financial interest in the invention, and also preferably an individual who did not take part in the conception of the invention. Other types of evidence might include internal corporate e-mails in which an inventor describes the idea to another employee, or a backup tape from a network server on the date that the inventor first created a file or document describing the invention.

Reduction to Practice (RTP). Just as important as the date of conception is the date of reduction to practice, *i.e.*, the date on which a working model or prototype was completed. When two persons both argue that they were the first to invent a specific invention, the inventor who was the first to conceive of the invention has rights to the invention, *regardless* of whether the other person was the first to reduce the invention to practice, provided that the first inventor was diligent in working towards his or her subsequent reduction to practice.[8]

Lawsuits can turn on whether an inventor can prove the dates of conception and reduction to practice. Accurate records of these events are often paramount in patent litigation. An inventor can prove reduction to practice in at least two ways. The first is the construction of a working model or prototype. When a working model of the invention is created, the inventor should document such creation by, for example, making an entry in his or her engineer's notebook, printing any computer source code, and signing and dating the printout along with the signature of another unrelated and uninterested individual.

Reduction to practice can also be proven by the filing of a patent application, referred to as constructive reduction to practice. When relying on constructive reduction to practice, the date on which the patent application is filed is the date of reduction to practice for purposes of determining invention priority against another inventor claiming rights to the same invention.

Evidence of conception and reduction to practice should be gathered and maintained when the patent application is prepared. Memories fade and documents get lost, so it is often easier to find evidence of conception and reduction to practice when the patent application is prepared, rather than wait until years later for litigation to ensue.

Enabling Disclosure. An enabling disclosure refers to drawings or other descriptions of the invention that are sufficiently specific to enable a person of ordinary skill in the art to practice the invention. Although the creation of an enabling disclosure in and of itself does not trigger any clocks or affect patent rights, an inventor should be aware that, when the invention is completed to such a degree that he or she can make or prepare an enabling disclosure, it is prudent to proceed as soon as possible thereafter to file a patent application for the invention.

Provisional Patent Applications

The U.S. patent laws provide for a simplified patent-application procedure referred to as a provisional patent application. A provisional patent application is useful because of its lack of formal requirements and a lower filing fee. This means that a provisional patent application can be filed on very short notice; however, it is subject to the same legal requirements as a normal, *i.e.*, non-provisional, U.S. patent application. Therefore, provisional applications should only be relied upon if there is not enough time to prepare a non-provisional patent application. For example, a provisional patent application is useful when an inventor finds out that a publication describing his or her invention will be published the next day. The inventor can preserve patent rights by filing the publication as a provisional patent application by the next day. The inventor's subsequent publication cannot then be used as prior art or be deemed a barring public disclosure because it was published on or after the filing date of the provisional patent application.

There are many nuances to determining the propriety of filing a provisional patent application, and this article merely serves to educate the reader as to its existence. It is strongly recommended that an inventor seek the advice of a registered patent attorney prior to filing a provisional patent application.

Foreign Patent Rights

Most foreign countries have an absolute-novelty requirement in order to obtain a patent. This means that, unlike the situation in the United States, *any* public disclosure can bar a patent. If a patent application is not filed in the foreign country prior to the public disclosure, then patent rights may be lost in that foreign country.

The United States is a party to an international treaty referred to as the Patent Cooperation Treaty (PCT), which allows the filing of a special patent application, referred to as a PCT application, to preserve patent rights in multiple countries simultaneously, without requiring that a separate application be filed in each country in which protection is desired. This special application, however, will need to be "perfected" in each country in which protection is ultimately desired by subsequently filing the special application in each individual country within a prescribed time limit, currently 20–31 months, depending on the facts of the individual case and the country in which protection is desired. As long as the PCT application is filed within 1 year of the filing date of the patent application in the

United States, the PCT application will be considered to have been filed on the same date as the United States patent application for purposes of determining whether the PCT application is barred by a public disclosure.

Inventors should be aware that any foreign or PCT patent application must be filed within 1 year of filing the U.S. patent application. Likewise, if the inventor first filed a patent application in a foreign country and is subsequently seeking protection in the United States, then the U.S. patent application must be filed within 1 year of the foreign patent application in order to claim the benefit of the earlier filing date of the foreign patent application. In addition, if the foreign patent application matures into an issued patent, and the inventor waited more than 1 year to file a patent application in the United States, the foreign patent can be used as prior art by the USPTO to reject the inventor's U.S. patent application.

If the inventor waits more than 1 year in either scenario – U.S. patent first or foreign patern first – the inventor loses the privilege of using the earlier filed application's filing date for the subsequently filed application. This means that any applicable intervening prior art between the filings of the two applications can be used against the inventor by the USPTO or foreign patent office to reject the patent application.

The Best Defense

When a patent owner sues another party for patent infringement, the patent owner will most likely be required to prove the dates of conception and reduction to practice at some point during the litigation. The patent owner may also be required to demonstrate the date of first sale or offer for sale, the date on which the first public disclosure was made, and the date of publication of any printed publication describing the invention.

The best defense is a good offense. Accurate and complete documentation of each of these dates is vital to proving the validity and enforceability of a patent. Thus, every inventor should remember the following tips:

- Document dates of conception and reduction to practice, and maintain evidence of these dates in the patent-application file.
- Seek patent protection as soon as possible after creating an enabling disclosure.
- File a patent application prior to offering an invention for sale. At a minimum, document the date of the first offer for sale and file a patent application within 1 year of that date.
- File a patent application prior to disclosing the invention to unrestricted third parties, *i.e.*, anyone outside one's company or not under an NDA. At a minimum, document the date of the first such disclosure and file a patent application within 1 year of that date.
- File a patent application prior to distributing any printed publication describing the invention. At a minimum, document the date of publication of the document and file a patent application within 1 year of that date.
- Require third parties to sign an NDA before disclosing or demonstrating the invention to them, and before distributing any documents describing the invention to them.
- *Any* public disclosure can destroy foreign patent rights.
- If seeking foreign patent protection in addition to U.S. patent protection, file a foreign or PCT application within 1 year of the filing date of the U.S. patent application.
- As an emergency precaution, an inventor can file a provisional patent application on short notice, including the same material that has been or will be publicly disclosed. (Remember, however, that filing a provisional application triggers the 1-year limit for filing a non-provisional U.S. patent application and any foreign patent applications.)
- An inventor can *license* an invention prior to applying for a patent, for example, to raise money from capital investors, but he or she should have the potential investors sign an NDA, as noted above, prior to disclosing the invention to them).

Notes

[1]For purposes of this article, it is assumed that the reader has a basic understanding of these various forms of intellectual property. For a general introduction to patents, copyrights, and trademarks, see "Intellectual Property: A Primer" by Ross Dannenberg and Jordan Bodner (copies available upon request from Ross Dannenberg at rdannenberg@bannerwitcoff. com).

[2]Statutory patent laws are located in Chapter 35 of the United States Code. Section 102 (b) of Chapter 35 states that a person shall be entitled to a patent unless, among other requirements, the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

[3]A person of ordinary skill in the art is a mythical person created by the courts, and generally refers to a person with a degree of skill which persons engaged in that particular art usually employ; not that which belongs to a few persons only, of extraordinary endowments and capabilities.

[4]Offering to sell or license the *patent* or *patent application* does not constitute a sale as defined in the patent laws. That is, the sale must be of an embodiment of the claimed invention in order to apply as prior art that can be used against the patent application. A contrary result might make it difficult for entrepreneurs to raise necessary capital to complete development of an invention.

[5]There is a narrow experimental-use exception to the public-use bar. If a public use was necessary in order to test the invention or confirm that it works for its intended purpose, then the public-use bar might not apply. The public use must be incidental to experimentation in order for the experimental-use exception to apply. The inventor should be aware that actual reduction to practice cannot occur prior to a claim of experimental use.

[6]It should be noted that if the public use is performed by the inventor for purposes of gaining a commercial advantage, then the on-sale bar might also apply, depending on the facts of the specific situation.

[7]It should be noted that, pursuant to another section of the patent laws, if the printed publication predates the inventor's earliest date of conception of his invention (*i.e.*, someone else invented it first), then there is no grace period, and the later inventor is barred from obtaining a patent.

[8]The U.S. patent laws state "[i]n 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." 35 U.S.C. § 102(g). ■