Patent Law Basics

(A faq guide to patent law)

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What is a US patent & what rights does it entail?

Article I Section 8 of the United States Constitution gives the Congress the power "[t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries[.]" The framers of the Constitution, and in particular Charles Pinckney of SC who was responsible for the inclusion of this language into the Constitution, believed in a policy that allowed inventions and new discoveries to be quickly made public so that all might benefit and that the acceleration of the science might be enhanced. To encourage such public disclosures, they decided that the grant of a limited exclusionary right to inventors would serve as an adequate incentive for such public disclosures.

Over the years, the Congress has taken up the Constitution's grant of power in this area and has made laws respecting patent rights coupled with public disclosure. More details will be discussed below, but basically, inventors whose inventions are new, useful, and nonobvious will be granted a patent. Importantly, the grant of a patent carries no right to actually make the claimed invention, but it does grant the right to exclude others from making, using, selling, offering for sale, and importing the invention. Below, we discuss how one goes about obtaining these patent rights.

What rights does the patent holder give up?

Because the rationale for allowing patent monopolies from the government's point of view is public disclosure of inventions, once the patent issues, the patent, including the specifications and claims will be published. The entire file wrapper, located in the patent office, will also become open to the public after the patent issues. Indeed, the patent application itself is published to the public not long after it is filed unless the applicant requests that it remain secret. However, a secret designation will forbid the applicant from filing outside the US. Additionally, when the patent expires, the holder no longer has the right to exclude others from practicing the invention.

How much does patent protection cost?

The answer to this question will be different for every case and the range can be quite extreme. Further, the answer most certainly depends on what the inventor wants in way of patent prosecution and what he has invented. Patentable inventions range from very simple inventions such as US Pat. No. D503,516 to Wysopal that is a design patent for a baseball "cap with integral bottle opener" and is only 5 pages long to quite complex

inventions such as a Pseudo Random Number Generator (US Pat. No. 6,314,440 to O'Toole) which is one of the longest patents ever at over three thousand pages long! Therefore, in addition to the cost factors identified below, it can generally be expected that as the complexity of the invention increases, so too does the overall cost to obtain a patent.

Initial cost factors include identification of the invention and determination of likelihood of patentable subject matter by an attorney as well as prior art searches. As will be discussed below, an attorney can work with an inventor to figure out what, if anything, the inventor has invented is patentable and what the inventor's chances of obtaining a patent will be. Also, if prior art searches are conducted there will be a cost associated with the search. Simple searches are less expensive but complex searches, including worldwide searches, can become quite costly. However, it is often the case that by conducting prior art searches in the beginning, the inventor can save even more money and critical time later during the patent prosecution stage.

Patent prosecution cost factors include the many and various fees charged by the patent office. Because the patent office operates off of the fees it receives, almost everything that occurs at the patent office is followed by a requisite fee. Other costs associated with patent prosecution include the cost of hiring a patent attorney or patent agent to prosecute the patent application. Patent prosecution entails drafting applications and amendments, responding to the patent office actions, preparing arguments, and filing appeals, petitions, and continuations.

After the patent issues, there are yet more costs that may need to be paid. Post prosecution cost factors include patent maintenance fees to the patent office as well as potential patent defense and litigation costs.

Despite what may appear at this point to be quite daunting cost figures, the US patent office accepted around 350,000 patent applications and issued over 187,000 patents last year. The patent office currently has over 6 million patents on file. Moreover, it is often the case that an inventor will first file a provisional application to save money and get his priority date and then begin to market his invention in order to help cover the cost of the upcoming patent prosecution. Indeed, sometimes, an inventor while marketing will find a buyer or licensee who will agree to cover the cost of patent prosecution.

Why do I need a patent attorney?

The short answer is that you do not need a patent attorney. Under US law, inventors can file their own patent applications with the US patent office (but in some foreign countries inventors are required under law to hire attorneys in that country). However, to successfully prosecute a patent you will almost certainly need some counsel or representative who is certified to practice before the patent office.

Certification is a rather complex process. To even sit for the patent bar exam, one must have the requisite technical background in engineering, sciences, computers, etc… as defined by the USPTO. Next, the patent bar applicant must pass a comprehensive exam on US patent office practice. The pass rate on this exam has been as low as 24%. Once the bar applicant has passed the exam, he becomes either a patent agent if he does not have a law degree or a patent attorney if he does have a law degree. Both patent attorneys and patent agents are certified to practice before the patent office.

The rigorous process involved in obtaining the ability to practice before the patent office is commensurate with the level of skill needed to successfully prosecute patents in the US. Patent attorneys must principally be able to understand what makes a particular invention patentable and what factors might hinder the invention's patentability. Further, patent attorneys must learn to speak the language of the patent office. Patent vernacular is a detailed language where it is not uncommon to have a single sentence broken into paragraphs as is the case with claims drafting. It is also the patent attorney's job to translate the technical inventor's lingo into this patent language.

When advising an inventor as to the patentability of his invention, the patent attorney must use the skills outlined above to reach a recommendation. Likewise, when prosecuting a patent, the patent attorney must use those skills to carefully achieve as broad a patent as possible while avoiding the prior art.

It is these professional skills possessed by patent attorneys that make it essential for an inventor who is considering patent protection to contact and obtain counsel from such an expert. Unfortunately, many inventors who are not very familiar with the patent protection process do not consult with an attorney as to patentability and instead first hire a commercial patent organization such as those advertised on television. It is only after they have sent these commercial organizations a great deal of their money that they realize those avenues are a dead end and they then find a patent attorney.

The path of a US patent, from conception to enforcement:

The following subsections relate to path of a patent from conception by the inventor(s) to enforcement of an issued patent.

Who can file?

To obtain a patent in the US, the patent applicant must be a human inventor (not a corporation) and he must have been the first to invent the particular invention. This is to say that the first person to invent gets the patent. By contrast, in most foreign countries, the standard for priority is not first to invent but first to file for a patent application. To apply for a US patent, the inventor can be of any nationality or citizenship and the invention need not be actually invented in the US.

So, what is invention?

The process of invention is characterized by conception and reduction to practice. Conception is that eureka moment when the inventor first envisions a complete idea. Reduction to practice is the creation of a working model or, alternatively, can constructively be the filing of the application with the patent office. For inventions conceived outside of the US, the US filing date will be considered to be the date of invention. However, for inventions invented in the US, applicants for a US patent can potentially trace their invention back to date of conception in order to establish priority for their invention as of that date. An inventor is anyone who contributed to the new idea of the invention. However, those who merely helped reduce the invention to practice are not inventors.

I have an invention, what do I do now?

Before filing a US patent application, there are several steps that you should consider taking that will save you a great deal of time, money, and effort down the road. The first step is to obtain some advice through counseling with a patent agent or patent attorney. Your discussions with these professionals will be confidential and can help to steer you in the right direction. Because the inventor knows his invention and area of expertise much better than the attorney, it is important that the inventor be forthcoming and help the attorney to understand the invention and why it is different from the existing art.

Because your invention must be novel, that is, it must contribute something new to the art, a search will likely need to be conducted that will identify other similar inventions. Novelty searches can range from simple internet searches to rather complex worldwide searches conducted by firms specializing in patent searches. The chance that the claims in your patent application will be rejected because of novelty decreases as the extent of the search increases. This occurs because a patent attorney can draft claims to avoid other inventions that are found during a search. However, the cost of conducting a search goes up as the time and complexity of the search goes up. Your patent attorney can advise you as to the extent of searching that would likely be adequate.

Besides novelty, there are a number of other factors that will control whether your invention is patentable. For instance, your invention must be useful. The usefulness hurdle is fairly easy to overcome. You only need to show that the invention has some use other than as landfill or some illegal purpose. The subject matter must also be patentable according to a US statute. However, the US Supreme Court has used the term “Anything under the sun made by man” to describe what is patentable subject matter. Indeed, today business methods and even living organisms can be patented.

Another factor makes it is important to realize that not only what others have done, but also what the inventor has done can affect patentability. If the inventor, or anyone else, has publicly used or sold the invention in the US during a period more than 1 year before US filing, he is barred from obtaining a US patent. However, the licensing and sales to the rights of an invention is not considered a sale under this statute. Likewise, experimentation involving the invention is not barred nor considered public use.

Another area where problems typically arise during patent prosecution relates to obviousness. A federal statute says that your invention must not be obvious to one having ordinary skill in the art. If during your patent searching, as described above, several inventions were found that were different from your invention yet had even one feature in common and these features from the various inventions could be combined to resemble your invention, it could be said that your invention is obvious in light of these prior inventions. Importantly the test is not *obvious to try* but obvious with a reasonable certainty of success. Your patent agent or patent attorney will be able to advise you as to the chance that your invention will be held by the patent office to be obvious in light of these inventions. With such prior inventions identified, your patent attorney will also be able to draft your patent application and prepare arguments in ways that might avoid or overcome an obviousness rejection.

How do I file a patent application?

Now that you have an invention, have done even a minimal search, and believe that you are ready to proceed towards getting a US patent, your next step is to file a patent application with the patent office. The US patent office is located in Alexandria, Virginia but we can communicate with the office via the internet, mail, fax, and phone. Only inventors, patent attorneys, and patent agents can file patent applications in the US. Patent attorneys and patent agents have technical backgrounds, have passed the US Patent Bar, and are registered with the patent office as such.

If international protection is desired, generally the inventor must take steps to file in the country or countries of interest within one year after filing in the US. There are some additional procedures and the additional expense of obtaining foreign counsel to aid in the prosecution. You can take advantage of certain treaty mechanisms for filing one application that will have effect in multiple selected countries through the Patent Cooperation Treaty and other similar treaties. Naturally there is quite a bit of variance in the laws from one country to another so local counsel always need to be involved in coordination with US counsel. With only a few exceptions, the costs and time-lines for obtaining a patent are not dramatically different from those in the US, however, translation expenses, when necessary, can add to the costs of foreign patent prosecutions.

This outline focuses mainly on US patent filings but your patent attorney can advise you further with respect to foreign patent filings.

The provisional patent application

There are many types of patent applications but there are two types that typically start patent prosecution for an invention. The first type is the provisional patent application. The provisional patent application is entirely optional and can be filed up to twelve months before you file the second type of patent application which is the regular application. Filing a provisional application can provide you with many benefits over first filing a regular application. The provisional application provides a way of locking in your priority date for minimal cost. Provisional applications only require a specification and drawing that serve as your disclosure to receive a filing date and do not require you to detail your claims. However, your specifications and drawings must still disclose the invention that you later plan to claim to receive the benefit of this early provisional filing date. If you do not disclose a feature in your specification, you will not later be able to claim that feature and still take advantage of the earlier filing date. You will have to provide a fee to the patent office to cover the cost of your provisional, but this is a smaller fee than for a regular application. Additionally, no English translation is required for a provisional.

Importantly, once you have filed your provisional application, you will have a "patent pending" designation for your invention. This will allow you great latitude in marketing your invention.

The patent application

The second type of application is the regular patent application. This type of application can be filed as a first application or can be filed up to twelve months after the filing of a provisional application and still retain the filing date of the provisional. In addition to the requirements of a provisional application, the patent application requires a larger fee, an English translation, and importantly your claims which define the limits of the invention you hope to patent. The claim is perhaps the most important aspect of your application as it identifies the metes and bounds of your invention. Moreover, everything that you claim in your patent application must be disclosed in the rest of your application, namely the specification and drawings. The disclosure must be to such an extent that a person skilled in the area of your invention could practice it. Further, you must disclose the best mode of carrying out your invention.

Additionally, there is always a duty to fully disclose material information to the Patent Office during the period that the inventor(s) is seeking the patent, including later discovered information that should have been disclosed in the application as possibly relating to the invention and existing before the date of invention and/or filing ("prior art").

What happens after I file a patent application?

When you file a provisional application, it sits in the patent office and is never looked at by anyone beyond a clerk who makes sure that all the required parts are present. However, once you file a regular patent application, a patent examiner who works in the patent office will begin to review your application. Because the patent office only allows one invention per filing fee, the examiner will first look first to see how many inventions are claimed in the application. If more than one invention is claimed, the examiner will ask the applicant to elect one of the inventions. You can make this election and file separate applications, called divisional applications, for the non-elected inventions if you wish.

Once you have elected an invention, the examiner will conduct a search of the prior art and examine your application for patentability. The examiner will check to see that your disclosure adequately enables those in the art to practice the invention and that it discloses a best mode of practicing the invention. The examiner will look for some utility in the invention and for acceptable subject matter. Remember, this is very broad and can be anything under the sun created by man. The prior art search conducted by the examiner will allow him to check to see if the invention is indeed novel and nonobvious. He can check patents and printed publications from around the world as well as look to see if there was any prior use or offers for sale in this country. Any one of these potential issues could serve as a basis for rejection of one or all claims in the application.

To summarize, a patent cannot be obtained if:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention by the applicant;

(b) 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 application;

(c) the invention would be obvious to a person having ordinary skill in the art in light of the prior art;

(d) the invention was not invented by the party seeking the patent;

(e) the invention was not disclosed in the written description in full, clear, concise, and exact terms as to enable any person of ordinary skill in the “art” to make and use the invention;

(f) the best mode of practicing the invention was not disclosed; or

(g) the invention is not useful or part of the patentable statutory subject mater. (the above list is not comprehensive, it merely represents some of the most common roadblocks to a patent).

After the examiner has examined your patent with respect to the above areas, he will issue a first office action. The first office action can be either an allowance or, as is more often the case, a rejection of claims. An allowance means that you will have a patent after paying an issue fee. A rejection means that the examiner has found problems with the either the claims or the disclosure which makes the invention unpatentable. To understand why the examiner has issued a rejection it is possible to talk with the examining agent either by phone or in person. By statute, you have six months to officially respond to this first rejection before your application becomes abandoned. During this time your attorney can file a response that attempts to refute, distinguish, or otherwise negate any objections raised and obtain an allowance of the patent. The response can amend your application to reflect the examiner's rejections and/or supply arguments as to why the examiner is incorrect and should change his rejection.

Thereafter, the examiner will issue an allowance or will issue a final rejection. An allowance means that the allowed claims are patentable and will be granted a patent upon payment of a fee. A final rejection means that the examiner still has found problems with the rejected claims. At this point after a final rejection, you have several options such as appealing the final rejection, filing a continuation which will allow for the application and prosecution process to begin again, or abandoning the application.

How long does this patent application process take?

As you may already realize, the time period for prosecuting a patent can vary considerably. The average time from patent application to completion is about twenty-six months. Of course, this time could be less but it could also run several more years.

What do I do after I receive a patent?

Once you have been issued a patent, you will have the right to exclude others from making, using, selling, offering for sale, and importing your invention. However, the patent only grants such an exclusionary right and does not grant you any positive rights to make, use, sell, offer for sale, or import yourself.

A patent does not guarantee that the holder can practice his or her invention. An improvement patent on an existing patented invention does not give the improvement patent holder the right to make or practice the existing invention without the permission

of the earlier patent holder. Similarly, the earlier patent holder cannot make or practice the improved invention without the permission of the subsequent patent holder.

During the life of your utility patent, which runs twenty years from the filing date of your US application, the USPTO now requires that you pay maintenance fees at 3, 7, & 11 years after patent grant in order for your rights of exclusion to remain active.

Importantly, you must be the one to enforce your granted patent rights of exclusion. The government does not have agents looking for people who infringe patents or teams of prosecutors to try them in court. If you are aware of someone infringing on your patent property rights, you must file suit against them for infringement in a court of competent jurisdiction.

It is often the case that, after receiving a patent or even after filing a provisional application, the inventor does not plan on selling the invention himself and would rather market the invention to other companies or manufacturers who are better equipped to handle such processes. Most patent attorneys do not handle these types of marketing but can advise the client on which marketing firms to consider for a given invention. This may be one of the few situations where those commercially advertised patent companies may be of some use once the inventor has a patent designation in hand for his invention.