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An Overview of the Invention Process from a Patent Attorney's Perspective

Please read this BEFORE you come in for your consultation. You will get quite a bit more from the initial consultation if you educate yourself on this material.

1. Preliminary considerations.

For most inventors, preliminary consideration should be given to some combination of intellectual property protection and proof that the invention works. This usually translates into some type of pending patent and one or more prototypes. Since we are attorneys and not prototype creators, we will suggest that you take your prototype questions to a prototyping specialist, such as www.Leardon.com.

With respect to patent applications, the idea here is that by filing a patent application before you show your invention to others, you will "get your foot in the door" at the United States Patent and Trademark Office (USPTO) with a certain filing date. This way, if anyone decides to file their own application on your invention, you have an earlier filing date.

What kinds of patents are there? Basically there are three types of patents: plant patents that can protect certain new varieties of plants, utility patents that can protect the way an invention works, and design patents that can protect the way an invention looks.

How do you choose which may be right for you? Well, unless you have invented a new plant, forget the plant patent. That leaves you with utility (how it works) and design (how it looks). More information on utility and design patents can be found on our website www.icipLaw.com, or on the internet, including the USPTO's website www.USPTO.gov. As a general overview though, most inventors would prefer to get a utility patent, as protecting how an invention "works" usually gives the inventor better protection than protecting how it "looks".

To briefly summarize utility patent applications, they are expensive (usually starting at $7,000 just to prepare and file, often with another $4,000 – $10,000 before it issues as a patent), take a long time to be examined (usually 1 ½ to 2 ½ years for mechanical and electrical inventions), are far from a "sure thing" in terms of being allowed as patents (in recent years the rate of success for utility patent applications has varied from 70% to 40%). To be worthy of a utility patent, the invention has to survive two laws, 35 U.S.C §102 (someone already made, published, or patented your invention before you) and 35 U.S.C. §103 (your invention is a mere "obvious improvement" over existing patents and products). These two laws, and their

subsequent interpretation are very important; all inventors are well advised to do further, independent research into both of these laws before proceeding forward. Utility patents are generally good for 20 years from date of filing and, as with all patents, are not renewable.

In contrast, design patent applications are cheap (usually around $1,500 to prepare and file, often with another $500 – $2000 before it issues as a patent), are often examined within 12 months of filing, often issue as patents less than 1 ½ years after initial filing, and have a very high success rate (over 95% of the design patent applications we file end up issuing as patents). However, design patents can be obtained only for physical devices; software inventions, methods and substances cannot be protected by design patents.

So, why do inventors even bother with design patents? There are a number of reasons:

1. If the design of the invention is one of its key aspects.
2. If the inventor doesn't have the money for a utility patent application.
3. If the inventor has a product with a relatively short window of opportunity on the retail shelves and wants to get quick protection.
4. If there are so many other patents, products, or published documents out there that describe inventions that function very similarly to the inventor's invention that there is little chance the inventor will get a utility patent on the invention.
5. If the inventor may believe he/she has a good chance at a utility patent, but decides to also file for one or more design patents to get coverage under both utility and design patents.

2. Prior Art Searches

A Prior Art Search is an important step in helping the inventor decide whether to proceed with a utility patent application. With a Prior Art Search, you are trying to find patents, published patent applications, other publications, products being sold, and any other item that may be used to prove that either a) the inventor was not the first inventor of this particular invention, or b) that the combination of the prior art renders this particular invention a mere "obvious improvement", and not worthy of a patent.

First and foremost, prior art searches <u>are not perfect</u>. Even if you hire 10 different prior art searching companies, they will probably not find everything that an examiner could use in trying to shoot down your application, but the prior art search will hopefully at least give you some idea of what else has already been invented, and from that you determine how to proceed. To repeat, just because you have done your own prior art search and found "nothing" and a professional prior art searching company did not find a patent that was, in your opinion, "not very close" to your invention, it is no guarantee that you will get a patent.

We often tell inventors to do their own prior art search first. Using a combination of the most popular patent searching programs (www.USPTO.gov, www.GooglePatents.com, www.FreePatentsOnline.com, and others), enter what you think are the "key words" for your invention and see what kind of patents and published patent applications you get. Start keeping track of them by number and "sort" by number for easy reference. Once you start getting duplicate results from all the search engines, you may have exhausted your searching abilities. You should also look for products similar to yours on the internet, and if your invention is a technical one, consult with the relevant trade, professional and scientific journals. If you found that someone beat you to inventing your invention by more than a year, perhaps you should pay for a consultation/patent assessment to confirm your suspicions and consider going with a design patent. If you think you still have a decent chance to get a utility patent, we advise you to consult a professional prior art searcher.

Turn to a professional. After you feel you have taken the prior art search to its limits, we urge you to have a professional prior art searching company do a prior art search. When you approach the company, make sure you know the price before you start, and give them all the patents, published patent applications, and other prior art you found. Most prior art searching companies budget a certain number of hours to a prior art search, and if you show them what you found, they will focus their efforts on finding additional prior art, rather than reinventing the wheel by spending time finding what you already found. If you like, you can hire two or more different companies and see what each can find.

Prior Art Searches are not perfect and in no way guarantee the success of a patent application. Please read our article on Prior Art Searches (www.icipLaw.com in the "Education" section). Prior art from anywhere in the world can be used against your patent application (just as your published patent application can be used against any patent application in a foreign country). Don't rely on the prior art search as a final determination of whether you will get a patent. Instead, you should use the prior art search results as a general guide to what other inventions are out there, and proceed knowing that even if the prior art search discloses nothing, there is no guarantee that your patent application will be allowed.

3. Deciding what to do next.

Once you have reviewed the results from the prior art search, you have a very important decision to make. You can review the results yourself and decide how to proceed, or have a patent attorney review the results and advise you and the likelihood of success (usually around $1,500 to review a prior art search, but can vary depending upon the number of references found). Please realize before you spend money having the prior art results analyzed that a) the analysis will be based only on the prior art found, and b) that patent laws and the USPTO's interpretation of them can change dramatically from the time of the analysis to the time your

application is examined, which can render the analysis relatively useless in light of changes to law or USPTO examination procedures.

So, how to decide? Our advice is first to decide if you think you have a reasonable shot at a utility patent. If not, you should consider a design patent, if possible. Design patent applications are (again) relatively inexpensive, quick, and have a high likelihood of success. Because they only protect the shape of an invention, they usually offer less protection than a utility patent application, but they may be the best that you are going to get.

Even if you think there is not a reasonable chance of getting a utility patent, there are still additional reasons for considering filing a utility patent:

1. The inventor is willing to take a chance that the application will be approved anyway. If an issued utility patent would be extremely valuable, it may be worth risking the costs in filing an application
2. Patent laws and their interpretation by court decisions and the USPTO examination procedures may change to the point where an "unpatentable" invention at the time of filing becomes patentable by the time it is examined (note: the reverse also can happen).

If you decide to go the utility route, you have to decide whether to file a provisional patent application or a utility patent application. A provisional application is a good way to buy yourself a year of grace period; you are "patent pending" from the day the provisional is submitted, and if you later file a utility patent application based on the provisional within the year allotted, your utility application will claim the date of the provisional. Provisionals cost roughly half of a utility patent application (generally around $3,000 to $5,000) and can be prepared relatively quickly, usually within 1 – 2 weeks.

Provisional patent applications generally work well for inventors who:

1. Currently don't have the money for a utility patent application, and would like to get "patent pending" before they try to raise money from investors, venture capitalists, hedge funds, etc.

2. Need to become "patent pending" ASAP and don't want to wait for the 2-4 weeks it usually takes to have a quality utility patent application prepared.

3. Want to do a bit more R&D, prototyping, market testing, etc. before they commit to a final version of the invention for the utility patent application.

The main dangers of relying on provisional applications include:

1. The year will fly by very quickly and if the inventor is not motivated, organized and self-directed, they would probably have been better off filing the utility patent application in the first place (as now they will have to wait until the utility patent is examined, and the inventor does not "move to the head of the examination line" just because the utility relied on a provisional filing date).

2. The provisional has to provide "support" for what is being claimed in the utility patent, so if the inventor changes the invention so much that it is not reasonably related to the contents of the provisional application from which it claims a filing date, that earlier filing date can be denied by USPTO.

3. If the inventor, during the year of patent pending status, decides to file a utility patent application based on the provisional, he/she will pay additionally for the utility patent application (we usually take ½ of the cost of the provisional off the cost of the utility patent application so long as we prepared the provisional, we offer no such discounts for provisionals prepared by other law firms, and most definitely do not offer any such discounts for inventor-prepared provisionals or on-line, fill-in-the-blanks provisionals).

There are also advantages and disadvantages to going immediately with a utility patent application. The main advantage (for some inventors) is that you get in line to have your patent examined by the USPTO, and you don't delay the examination by first filing a provisional, waiting up to a year, and then filing the utility. Other inventors may prefer to drag out their patent pending status as long as possible before examination, and so they would rather tack a utility onto the end of a provisional. We have also found that inventors are usually taken more seriously by venture capitalists, investors, prospective licensees, etc., with a pending utility patent rather than a pending provisional patent.

Many inventors are extremely eager to see their patent applications examined. In other cases, it is very important for the commercial success of a company to know as soon as possible whether or not their patent will be approved. Inventors in either of these positions should consider an Accelerated Examination Application. Accelerated Examination is a program that tries to give the inventor either a patent or a final rejection within a year of the filing date. The catch? Cost. You need to begin an Accelerated Examination application by having an extensive prior art search performed, which usually runs $3,000 to $8,000. Drafting the application is also considerably more expensive (usually double the normal rate) as we have to prepare a support documents that can go well over 100 pages in length. There is also a Track 1 program in effect at the USPTO. This also costs additional money, so contact us for details if you want.

Other intellectual property to consider. No matter what an inventor decides regarding the filing of patents, he/she should also consider the role that Trademark and Copyright protection may offer. For more on Trademarks and Copyrights, you can look at our website.

4. If you decide on a Design Patent Application

If you choose this route, either as an alternative to or in combination with a utility patent application, you need to get professional patent illustrations completed. These need to show the traditional "7 views" of the invention: front, back, top, bottom, right side, left side, and perspective. We urge inventors not to try to do their own patent illustrations unless they are highly proficient in graphics programs AND are fully knowledgeable about USPTO drawing requirements. Professional patent illustrators generally charge $100 to $150 per sheet of drawings, and if your self-created drawings get rejected by USPTO, you will probably pay more in our attorney fees to get them fixed than you would have paid in the first place to have the job done per USPTO guidelines.

5. If you decide on a Provisional or Utility Patent Application

If you choose either of these routes, the first thing we need is a "snapshot" of the invention as of the date we begin the patent application. Many inventors want to change the invention during the time we are writing the patent application. We can accommodate changes, but please realize that we will charge hourly for any changes to the invention outside of the "snapshot" you give us to begin drafting the application. Once we have a concrete idea of the invention that you are trying to patent, we can begin.

As with a design patent application, you will need to have patent illustrations prepared. The utility patent application requires different types of illustrations from those required for design patents. For utility patent applications, the illustrations have to show how the invention works, so often we need close-up views of certain parts, cut-away views that show the internal workings of an invention, or other views not needed for design patents. The inventor generally meets in person with the patent illustrator or sends a prototype, drawings, or photographs to try to convey what the invention is all about. We also generally do not review patent illustrations for completeness – that is between the inventor and the patent illustrator – however we can bill hourly for our time in overseeing the creation (and, if necessary the revisions) of patent illustrations, but this is separate from the fee we charge to prepare the actual patent application.

It usually takes several weeks to prepare a utility patent application. We like to prepare an initial draft, then get the inventor's comments and revise the application until everyone is satisfied with the application. We require ½ of the expected total preparation and filing costs to be paid up front, and the other ½ to be paid before filing.

Early Publication, Regular Publication or Non-Publication. Under "Regular Publication", an application will usually be published 18 months after filing. Thus, anyone in the world with a computer and internet connection can see your application and follow its examination progress. Under "Early Publication", you pay an extra $300 to the USPTO and the USPTO will publish your application 3 to 5 months after filing. Under "Non-Publication", the USPTO will not publish your application unless and until it is issued as a patent. The strategies behind different publication routes are complex and should not be decided upon on a whim. As a general rule, some of our clients have used Early Publication as a way to put potential infringers on notice of their inventions. Some have selected "Non-publication" as a way to keep their inventions (and patent applications) secret. Others don't care one way or the other and let the applications publish 18 months after filing.

We generally file our applications electronically, which means that once the application is filed, we will get a filing receipt back immediately, and you will have a serial number for your application and will be officially patent pending.

Foreign Filing. A patent (and trademark for that matter) filed in the US will only give you protection in the US. For patents, that protection is the exclusive right to "make, use, and sell" the invention. Thus, people can buy a copy of your product in China, but they can't bring it into the US to "sell or use". Also, no one can "make" a copy of your patented product in the US for sale to another country. However, your US patent will not protect you from a company making your invention in China and selling it into Germany. So, many inventors consider foreign filing of patents. Our website has a good explanation of foreign filing in our Education section.

6. Once you are filed, what do you do?

Can I show my invention? You can be barred from obtaining a patent if you fail to file an application within 1 year of your first sale or public disclosure of your invention. Once you have filed your application, you can publically disclose your invention without having it count against you. Another reason to get a patent application filed is to get your filing date such that anyone who sees your invention and tries to steal it by filing their own patent application on your invention, will have a filing date behind your date. So, many inventors try to promote / license / sell their invention immediately after filing the application.

First Action Prediction Letter. First, many inventors get quite impatient to see their patent applications examined. Inventors should realize that once the application is filed, they, and the patent attorneys, have no control over when it will be examined. The rapidity with which the USPTO gets to examining an application depends on a number of ever-changing factors, including the number of applications received by the "art unit" or section of the USPTO that handles your type of invention, the number of examiners in that art unit and how hard they work, and USPTO examination policies and procedures. We can, at any time, get on the USPTO

website and see the expected date of examination. Once your application becomes "public", you too can pull up this information on the PAIR program. If you want us to look on the website and give you the latest expected date of examination, we can do so for around $50 per request.

Prototypes, packaging, manufacturing, names/brands. Most inventors should consider trying to have a prototype made of their invention, either to show that the invention truly works or to give prospective licensees an idea of what the eventual product would look like on the market. Many of our clients have been very happy with Leardon Solutions (www.LeardonSolutions.com) in the Rancho Bernardo area for engineering work, prototypes and manufacturing.

Make it and sell it yourself or try to license out your pending patent? This is something that inventors should be thinking about. The main advantage of making it and selling it yourself is that you get to keep all the profit, but it is a lot of work. By licensing out your pending patent application, you shift much of the risk to your licensee – they need to make it and find a buyer, your main risk is that you pick the wrong licensee and they don't sell many products, thereby paying you fewer royalties. This problem can be avoided with a properly drafted licensing agreement that gives you a minimum quarterly royalty or a percentage of the sales, whichever is greater.

Continue your business education. Many inventors fail because they are not honest with themselves about what aspects of the invention business they are good at, and which they need help with. For those living in San Diego County (or willing to travel), the North County Small Business Development Center (http://www.sandiegosmallbiz.com/) offers a number of free and low-cost courses on many types of business development, along with offering free one-on-one consultations on how to develop your business.

Keep up with developments in patent law, court decisions relating to patent law, and USPTO changes in examination policies. I am always surprised how many clients will pay us thousands of dollars for a patent application, and then never bother to look at our website to find out what changes are going on in the patent world that may affect their patent application. Just in the last three years we have had three major court decisions that have radically affected the patent world (KSR reduced the utility patent allowance rate from over 70% to around 40%, Bilski severely limited the types of business methods that are patentable, and Egyptian Goddess expanded the protection offered by design patents). In many cases, when the Office Action comes in and we notify the clients, they have no idea of the important changes to patent law that we (and they) are going to have to deal with (or have benefitted from). It is important to remember that your patent application will be examined under the laws that exist at the time the patent is examined – not under the laws that were in place at the time the application was filed. We urge all of our clients to keep up with changes to these laws

by subscribing to our newsletter, or at the very least trying to keep abreast with these changes by regularly reading the articles on our website or on the internet in general.

7. Additional Charges after the Initial Filing. Once the USPTO receives a trademark application, there are several communications regarding their initial review of an application and the designation of a serial number, and then some basic search information. If you have selected the option to serve as the correspondent, you will get this information and will be responsible for reviewing and responding to it. If you select our law firm as the official correspondent, we will review the incoming correspondence, notify you, and respond if needed. Please note that it is important to review these initial notifications from the USPTO, and if you ask us to take our time to review them, you will be charged on an hourly basis for this review. <u>These bills are usually not much – usually under an hour total – but they will charged, so do not think that once an application is filed there will be no more bills until the application is reviewed.</u>

8. Examination and Office Actions. When your application is finally examined, the USPTO will issue an "Office Action" which sets forth the examiner's opinion of the patentability of the invention, describes any rejections of the drawings submitted, and points out any questions he/she has with the words and phrases used in the application. Under the KSR case, it is not uncommon for all claims to be rejected in a first Office Action.

On your Project Order you can check whether you want us to review all incoming correspondence, or whether you want to review it. If you want us to review it, when we get the Office Action, we will give it a brief review and bill for our time reviewing and docketing it, and send a copy to the inventor along with our advice on how to proceed and an expected budget for responding. If you checked the box where you want to review all USPTO correspondence, you can review it first and then let us know if you want us to continue.

There are three main ways we usually respond to Office Actions. First, the traditional method is to prepare a written response in which we bring up arguments why we believe the invention is patentable over the examiner's rejections, and amend the claims to try to work the application around the prior art cited by the examiner in the Office Action. Second, we can call the examiner by telephone and try to argue the case over the phone. Third, we can request a meeting with the examiner at the USPTO headquarters in Alexandria, Virginia.

While the third option is usually the most expensive, we have found that in many cases it offers the best chance of getting a patent allowed. With visiting the USPTO headquarters, the inventor can also come along and bring up his or her points why the invention should be patentable.

9. Issuance of a Patent

In some cases, after one or two responses, the USPTO examiner will allow your invention to issue as a patent. Once we get a Notice of Allowance, you have at least one more important decision to make. Since the publication of your patent application, the issuance of your patent, and any public sales of your product (or trade show displays, licensing meetings, etc.) may count as "public disclosures", once your patent issues you may be precluded from filing further patent applications on improvements to your invention under 35 USC 102 (public disclosure of your invention). The best way to ensure that you can file additional patent applications on your invention is to file a continuation application BEFORE your patent issues. There are several types of continuation applications, and we can discuss them with you.

10. Maintenance Fees, Expiration

Design patents are valid for 14 years from date of issue, and there are no maintenance fees required. Utility patents are good for 20 years from the date of filing, and there are three sets of maintenance fees due. Once a patent issues you are responsible for docketing and paying the maintenance fees unless you hire us to oversee this. You can check the USPTO database for current information on the dates the maintenance fees are due and the amount of the fee. We will also notify you, and can pay the maintenance fees for you with a nominal fee for our services.

11. Licensing, selling your patent, selling your company, enforcing your patent

Many inventors want to build up their company to the point where they can sell it to a larger company. InterContinental IP can assist in negotiating a licensing agreement, preparing your company for an IPO, a merger with another company, or the outright sale of your patent and/or your company to another individual or company. We can also help you to enforce your patent rights against infringers, and to defend you if you are accused of infringing anyone else's IP.

12. Additional Resources

These companies are not affiliated with InterContinental IP and we do not guarantee their results, but rather these are companies that our previous clients have made favorable comments regarding the services they provided. This list is definitely not exhaustive, and a simple search on the internet should provide a number of alternatives to each resource category below: these are just folks we have heard good things about from past clients.

Prototypes (and Manufacturing)

Leardon solutions. www.Leardon.com. Located in Escondido, California. Joe Donoghue is the president and the best person to contact directly. Joseph.Donoghue@Leardon.com.



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Prior Art Searches (We recommend that you have your prior art search done by an organization that does not provide prosecution services.)

National Patent Services. www.nationalpatentservices.com. Toll Free: (800) 998-1323 Bill Fry has been very helpful to past clients: bfry@nationalpatentservices.com.

Legal Advantage (New York). Hal Pieroway has been very helpful to some of our clients. www.LegalAdvantage.net. (800) 538 0558.

Patent Illustration:

Bill Beatty (San Diego, CA). bbtryec@cox.net.

Jill Gilliam (Encinitas, CA). Jill@JillGilliam.com

Legal Advantage (New York). Hal Pieroway has been very helpful to some of our clients. www.LegalAdvantage.net. (800) 538 0558.

Additional Business Education:

North County Small Business Development Center. www.sandiegosmallbiz.com. Look under "Workshops" to see a list of their upcoming classes.

Adult School Classes. We also teach Adult School Classes on Inventions, Patents, Trademarks and Copyrights at Poway, San Dieguito, Vista, Escondido and Grossmont adult schools.