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# PROCEDURES AND COSTS FOR PATENTS

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#### 1. Introduction

If you or an employee of your company invented something that appears to have market potential, you may want to protect it. Patents give you the opportunity to exclude others from making, using, selling or offering for sale the invention. A patent may be the best way for you to protect the invention, but how do you go about obtaining one? This is a brief outline of the major steps and some typical costs ordinarily taken by an inventor or company toward obtaining a U.S. Patent.

Numerous cost ranges are listed below in order for you to have an idea of what the steps might cost in a typical case. These should not be taken as quotes for any particular case. If you have any questions about costs, payment or any other matter, we sincerely hope you will raise those so we can answer them.

### 2. Types of Patents

There are three types of patents in the United States: Utility, Design and Plant. Utility patents protect the functional features of an invention and usually are directed to scientific and engineering technology. For example, utility patents protect machines, processes,

improvements to existing machines and processes, and compositions of matter. Design patents protect the decorative, ornamental or aesthetic features of a useful device but not the functional features. Plant patents are directed to asexually reproduced, distinct and new varieties of plants, other than tuber propagated plants or plants found in an uncultivated state. Feel free to inquire further about the type or types of patents that may protect your invention.

#### 3. Records of Invention

It is desirable to create and maintain written records of activities that are related to the invention and the date of each activity. The activities which should be described and dated include thoughts on the structure or process steps of the invention, the performance of experiments, the results of the experiments and observations made from the results. The persons who are involved in an activity should sign and date the record of the activity. Although the law was changed to make these records less important than in the past, it is still preferable to make this effort.

Records should also be kept of all events in which the invention is disclosed to any other person(s). If a document which describes the invention is given to others, a copyshould be retained. A written record should be made giving information that identifies the other person(s) and describes the manner and purpose of the disclosure.

### 4. Searching

To be patentable, an invention must be different enough from publicly available prior technology, which is known as "prior art". Since patent applications are expensive, a common second step for inventors is to obtain a rough idea whether the invention is different enough from the prior art that the invention would have a reasonable probability of being patented if a patent application were filed. To accomplish this, a patent attorney can perform a search in the U.S. Patent and Trademark Office and sometimes in other resources. A reasonable amount of time is spent, usually a few hours, trying to find patents showing similar inventions. Several days could be spent, but the added expense is normally not justified. No matter how extensive the search, there is always a significant chance that important prior art will not be found. Previous printed literature other than patents is also relevant, but is not ordinarily searched because of the cost of a reliable search of it. Consequently, a patent search should not be considered to be

highly reliable unless the search makes it clear that obtaining a patent for the invention is unlikely.

The patents found in the search are studied and an opinion estimating the probability of obtaining a U.S. patent is then written and sent to the client, along with copies of the closest prior art that was found in the search. The cost of a search and opinion is ordinarily approximately \$3,000.00 but could be more depending principally upon the technical complexity of the invention. If we believe it would be more, we will tell you before the search is undertaken. More information about patent searches is available on our web site under Frequently Asked Questions.

### 5. The "Obviousness" Test

As noted above, an invention must be sufficiently different from the prior technology in order to be patentable. The legal test for sufficiently different is that the invention would not have been "obvious" to a person of ordinary skill in the technical field of the invention who is aware of the relevant prior art. More specifically, we first determine the differences between the invention and the prior art, typically found in a patent search. Then we form an opinion whether those differences would have been what the patent statute calls "obvious" to that person of ordinary skill. In determining whether the differences were "obvious", we assume that such a person of ordinary skill applies to the prior technology the principles and reasoning which such persons normally apply. Typically, people who are knowledgeable in a technical field are aware of modifications that can be made to preexisting ideas. They are also aware that sometimes features of different but related structures, processes or materials can be combined or a feature from one can be substituted for something in another. The invention is not patentable if the differences between the prior art and the invention would have been obvious to a person of ordinary skill in the field. Obviousness is a complex issue that inventors should be familiar with. Your attorney can advise you further.

# 6. Telling Others About the Invention - Confidential Disclosure Agreements

Inventors should be cautious about how they disclose their inventions to others for at least three reasons. First, if inventors want to disclose the invention in order to offer to license or sell the invention to someone or to seek an investment from them, the inventor wants the best available legal protection to stop the other party from learning the invention from the inventor and then

using it without compensating him or her. Second, disclosing the invention to others can, in some circumstances, destroy the right to obtain a U.S. patent if a patent application is not filed within a one year grace period after such a disclosure. Finally, foreign patent rights will most likely be lost immediately if an inventor discloses the invention before he or she files a patent application, unless the disclosure of the invention is confidential.

Therefore, if an inventor wants to disclose the invention to someone so that they can evaluate it and decide whether they want to have a business agreement, it is desirable that the inventor and the other party sign a confidential disclosure agreement before the invention is disclosed. A confidential disclosure agreement is a contract between the inventor and a person to whom the inventor will disclose the invention. In the contract, the inventor agrees to disclose the invention and the other person agrees to evaluate it, but not use it or disclose it to others except with the written permission of the inventor. In the absence of such an agreement, the person to whom the inventor discloses the invention is free to disclose it to others and sell it, limited only by any patent the inventor may later obtain. Preferably, the disclosure will be written, a copy is given to the other party and they will sign the inventor's copy acknowledging receipt. The inventor should retain all evidence of any meeting and of what was disclosed. Some companies will not sign a confidential disclosure agreement because they fear an unjustified lawsuit against them. Some companies will only consider an idea if the inventor signs their agreement that the disclosure is NOT confidential. So, as always, inventors should read before they sign any agreement. A patent attorney can prepare a confidential disclosure agreement that protects the invention and can advise you about other agreements.

Inventors should also avoid a disclosure that would destroy the right to receive a U.S. patent, unless a patent application will be filed within the one year grace period after the disclosure. A confidential, non-commercial disclosure does not destroy the right to a U.S. patent nor does offering to license the invention to others. However, publishing the idea in any media, including on the internet, in a cataloged scholarly paper or in papers distributed at a seminar, starts the grace period running. A public use of the invention or offering to commercialize or sell copies of the invention also likely starts the grace period.

### 7. Filing a Design Patent Application

The third step for inventors is the filing of a patent application in the U. S. Patent and Trademark Office. The technology to be protected will determine the type of patent application that will be

filed. If the invention has unique decorative or ornamental features, a design application may be appropriate. Design patent applications include drawings of all of the important views of the invention, formal papers that must be signed by the inventor, a claim and descriptions of the drawings. The cost of design patent applications varies according to the number and complexity of the drawings, but normally is between about \$1,500.00 and \$2000.00. Because this is less than the cost of a patent search, we do not normally recommend that we perform a search before preparing and filing a design patent application.

# 8. Filing a Complete ("Non-Provisional") Utility Patent Application

As noted immediately above, the third step for inventors is the filing of a patent application in the U. S. Patent and Trademark Office. A utility patent application can be filed to protect the functional features of an invention. After receiving the search opinion, or if no search is desired, the inventor must decide whether to file a patent application. In order to decide whether to file a patent application, inventors or company managers should consider their attorney's opinions, their own evaluation of the sales, licensing, or other commercial potential for the invention and the possible value of marking the invention with the designation "patent pending".

A utility patent application includes a detailed description of the invention, drawings, formal papers and, most importantly, the patent claims. Patent claims are concise legal definitions of what is sought to be patented. They define the invention in increasing steps of detail. They appear at the end of an issued patent as the definition of what is patented.

The cost of preparing and filing a utility patent application is determined primarily by the attorney time required to prepare the patent application. A substantial part of the cost is also based upon the attorney's expenses, such as government fees for filing the application and the cost for a draftsperson to prepare acceptable drawings. Patent applications typically cost clients a total of \$6,000.00-\$12,000.00 to prepare and file, depending upon the technology and the complexity of the invention. A significantly more complex invention could cost significantly more. This cost range includes filing fees, patent drawings and all expenses to prepare and file the application, but does not include the next steps, which are addressed in later sections.

The patent statute requires that the patent application include a description of the invention that is sufficient to enable a person of ordinary skill in the field of technology to practice the invention without the necessity of undue experimentation. It is therefore very important that your patent

attorney be given all information that is important to enable such a person to construct the apparatus or practice the method of the invention. It is a common misunderstanding that a patent will be broader and stronger if less information and fewer details are given in the description of the invention. To the contrary, giving less information can only make a patent narrower and weaker. Doing so might prevent the grant of a patent or result in any patent that is granted being later declared invalid. In general and when properly presented, the more information in the patent application, the better.

Preferably, the application includes a description of the best or preferred mode of practicing the invention as the inventor currently believes it to be. You should describe all the details to your patent attorney of the best embodiment of the invention. It is important that inventors not withhold any information about the preferred structural or method features or parameters. If there is any question about this, inventors should inquire whether something must be disclosed. There is no obligation to *find* the best mode possible but it is desirable to describe what you *believe* to be the best mode.

With two exceptions, the patent law prohibits a patent if the invention was offered for sale, commercially or publicly used, published or otherwise made available to the public, or included in a filed patent application anywhere in the world before your U.S. patent application filing date. One exception is that none of the above actions prohibits a patent if it is the inventor, or someone who derived the information from the inventor, who makes the invention available to the public and does so *less* than one year before the inventor's U.S. patent application filing date. The second exception is that an earlier patent application filed by the same inventor(s) does not prohibit a patent unless that application was published more than a year before the inventor's U.S. patent application filing date. Therefore, if it is possible that any of these situations may be applicable, inventors should tell their patent attorney about the related facts and circumstances. It does not make sense to spend money trying to obtain a patent that will be clearly invalid.

### 9. Filing a Provisional Application

A "provisional" patent application is a utility patent application that may be helpful to some inventors, but it is not a substitute for the complete, non-provisional utility patent application described above. A provisional application provides a filing date for the technology disclosed in it and delays the time when a complete utility application must be filed. A provisional application

has similar description and drawing requirements as a complete utility application, and can differ in content by its lack of claims (the concise definition of the invention). The filing fee is also significantly less than the filing fee for a complete, non-provisional utility patent application.

A provisional application is not examined by the U.S. Patent and Trademark Office for its substance; only its form. Furthermore, a provisional application is never available to the public unless a non-provisional application is filed within one year of the date of filing the provisional application. A provisional application should not be considered a less-expensive alternative to a complete, non-provisional application. Instead, it is preliminary to a non-provisional application.

The primary benefit of a provisional application is that it "buys" an inventor time by providing an application filing date. Obtaining the earliest possible filing date is usually desirable because the filing date is used to determine what is included in the prior technology over which the invention must be a non-obvious improvement. Additionally, a patent issuing from an application filed after June 7, 1995 is in force for 20 years from the filing date of a complete (non-provisional) patent application. The provisional application gives an inventor a filing date, allowing him or her to make the invention public, without starting the 20 year period of the patent's life. The 20 year period does not begin to run until a non-provisional application is filed. But it must be emphasized that a provisional application will not result in a patent being issued unless a complete (non-provisional) application is filed within one year after the provisional application was filed.

A provisional application will ordinarily cost less than a non-provisional application because the filing fee is lower and there are no claims. Not drafting claims for the provisional application results in less attorney time, since a significant portion of the time spent in drafting a patent application is spent drafting claims. However, that portion of the attorney's fees is merely delayed for a year, since it will be necessary to draft claims if a non-provisional application is filed. Depending upon the quantity of attorney effort the client wants, the cost for a provisional application can vary from \$500 to as much as the cost of having a complete (non-provisional) patent application prepared.

The amount of effort an attorney can expend in preparing a provisional application can vary over a wide range. At one end of the range is the simplest application, with the least effort. With such a provisional application the attorney simply takes existing disclosures and descriptions

provided by the inventor, places them in the format of a provisional application, and files them as a provisional application. This minimizes the cost to the client.

At the other end of the range of attorney effort is that the attorney can exert substantially the same effort as is exerted in preparing a complete, non-provisional patent application. One or more patent claims might even be included. While this increases expenses, it minimizes the risk that the provisional application does not include something that is important that will make the provisional application unable to support a later filed, complete, non-provisional application. Some companies file provisional applications at this latter boundary of the range.

It is obvious that applications prepared with more attorney effort will incur more attorney expense, but also will minimize the risk of later problems. Provisional applications anywhere in the range of attorney effort can make good sense depending upon the goals and expectations of the client. What is important is that the client understands in the beginning what the client is receiving so there will be no unmet expectations at a later time.

There is a potential for danger with a provisional application. Attorneys go through an important analysis of the invention when drafting patent claims. This analysis includes determining the essential component parts of the invention, and what details of the invention need to be described and shown in the drawings. When this analysis is omitted to save the cost of the complete application, it is possible that an element necessary to claim the invention precisely will not be sufficiently described and shown in a provisional application. The likelihood of this occurring increases as the complexity of the invention increases. If some information is later deemed necessary to obtain claims and that information is not in the provisional application, but is only included in a later filed non-provisional application, only the filing date of the non-provisional application will be effective. Consequently, prior art will not be based on the earlier filing date of the provisional application and therefore, its benefit will be lost.

It is possible for a client to draft his or her own provisional application, and have an attorney look it over to ensure that it meets the statutory requirements of form before filing. This may be the best approach when a paper is about to be published, or a sale is foreseeable and time is of the essence. We charge our usual hourly rate for this service, but note that review of the substantive content of the application is limited to the review we are instructed to make. This involves many situation-specific considerations. If you are considering this approach, please contact us so we can discuss your particular circumstances. Please also understand that a

disclosure or description prepared by you and merely reviewed by us cannot be considered professionally equivalent to one prepared by us.

If an inventor seeks to prepare his own provisional patent application, it would be helpful for him to know how it will be used later so he can prepare it in a way that will maximize its value to him. A provisional application can be thought of as a "container" in which the invention and all the information needed to later prepare a complete (i.e. non-provisional) utility patent application is stored. If some information is not in the "container" (i.e., the application), that information will not receive the benefit of the provisional application filing date. Therefore, it is desirable to put everything possible in the "container" (the application). There is no penalty for including too much, but including too little can reduce legal rights.

In a provisional application, inventors should describe what the invention is, how it works and what it does. It is fine to include its advantages and say how much better it is than the prior art, but this is of lesser importance than describing its components and cooperation among components. Inventors should describe all the details and related alternatives. Drawings or photographs should be included if they assist in informing the reader about the invention.

The invention should be described in a manner so that a person of ordinary skill in the same field could take the description and practice the invention without the necessity of undue experimentation. However, one need not describe what is already known to those of ordinary skill in the field. One should consider how to describe the invention to a young student, and that is how it should be described in a provisional application.

### 10. Information Disclosure Statement

Rule 56 of the U.S. Patent and Trademark Office imposes a duty of candor and good faith upon everyone involved with a patent application. This duty is best met if the inventor furnishes to the patent attorney all publicly disclosed information relating to the new or unobvious portion of the invention. This is normally the closest prior art. The patent attorney should then file copies of relevant publications in the United States Patent and Trademark Office in an Information Disclosure Statement before the application is examined by the U.S. Patent and Trademark Office.

## 11. Publication of a Patent Application

A utility patent application that is filed in the U.S. Patent and Trademark Office is published about 18 months after its earliest filing date or priority date (for patent applications first filed in other countries), whichever is earlier. However, the applicant may request that the application not be published if he or she states that no patents will be sought in other countries. If an applicant who requests that an application not be published later decides to seek a patent in another country, the earlier statement to the contrary must be rescinded by communicating that rescission to the U.S. Patent and Trademark Office.

An advantage of publication is that the invention becomes available sooner as prior art against others. A disadvantage of publication is that the invention may be made public before the inventor knows whether he or she will receive a patent. Since many applicants eventually seek patents in another country, we do not request non-publication of the application unless clients request that we do so.

The publication of a patent application can have a significant impact in another way. Under U.S. law, the publication of an application may become prior art against any later filed patent application. The most common situation in which the publication of an application becomes a concern is when the applicant is working on improvements to the invention that was the subject of the first application. If the applicant later wants to file a second application claiming those improvements, the applicant must file within a particular time frame or else the first application will be prior art. The result of this is that if the earlier application becomes prior art, the improvement will have to be patentable over the invention disclosed in the first application. Therefore, if an inventor has plans to file any other patent applications relating to the subject matter of the first patent application, he or she should inform us of those plans so that we can file any other patent applications as soon as is necessary.

### 12. Prosecution

The filing of a patent application does not assure the granting of a patent. The next step after filing a non-provisional application is usually to convince the U.S. Patent and Trademark Office to grant a patent on the invention. This is referred to as "prosecution" of a patent application.

After filing, the application will be in the U.S. Patent and Trademark Office backlog for at least several months and perhaps as long as three years or longer, but typically for about one to two years. Then one of the nearly ten thousand patent examiners in the Patent Office will issue an

"Office Action" stating whether they will grant a patent and explaining their position. Usually the Patent Office examiner rejects some or all of the claims on the first Office Action even though they may eventually allow a patent with some claims. The patent attorney is able to respond to that Office Action to convince the Patent Office to grant a patent or to modify the patent claims or both. There may be two or even three such "Office Actions" by the Patent Office and "Responses" by the attorney. The attorney and the patent examiner may talk by telephone or personally in the Patent Office. All of these communications between the examiner and the attorney are part of the prosecution of the patent application. Hopefully, it will end with the allowance of the application as a patent, which is our typical experience, but it is possible that it will not. If a patent is allowed, it will issue within six months or so of the end of prosecution; if it does not, an appeal can be taken.

It is difficult to estimate the cost of the services of your attorney for such prosecution. This cost varies widely with different inventions and different patent examiners because we cannot anticipate what any given examiner will do or what we must do in response. The cost of prosecution may be as low as \$500.00 or as high as \$10,000.00. Most often, total prosecution cost is approximately in the range of \$4,000.00 to \$8,000.00. In the unusual event that an appeal is necessary and a client wishes to appeal to the Board of Appeals or the Court of Appeals, the cost would be significantly greater.

#### 13. Advancement Of Prosecution

The Rules of the U.S. Patent and Trademark Office permit a patent application to be advanced for prosecution by submitting a fee and a petition for acceleration. The Office intends acceleration to permit completion of examination within a year. Another basis for acceleration is the advanced age or poor health of the inventor. Any other basis places limits on the application, requires that a search be performed and requires the preparation and filing of an accelerated examination support document. The document requires an extensive analysis and discussion of the patent application and the prior art, and therefore causes a substantial increase in the cost of the application.

It is not always desirable to receive a patent as soon as possible. Ordinarily inventors do not need a patent as long as there is no infringer, unless it has value in marketing or obtaining investors. Inventors may want to use the usual delay in the Patent Office to evaluate the commercial value of the invention or to maintain other options before they incur the cost of prosecution or issuance of the patent.

## 14. Issuing a Patent

The final substantive step in the prosecution is to issue the patent application as a United States Patent. If the U.S. Patent and Trademark Office is convinced during prosecution that the inventor should be granted a patent, it will send the attorney a "Notice of Allowance and Issue Fee Due". It is then necessary to pay to the U.S. Patent and Trademark Office an issue fee for printing the patent and a publication fee. The current (2020) issue fee plus related services total approximately \$1,700.00 for a large company and \$1,100 for a small company. All U.S. Patent and Trademark Office fees are set by Congress and consequently can be expected to be increased from year to year. A few months after payment of the issue fee, the inventor will receive the Letters Patent of the United States.

#### 15. Maintenance Fees

After the issuance of the patent, maintenance fees must be paid to keep a utility patent enforceable. The current (2020) fee schedule for a large company is approximately \$2,000.00 before the fourth anniversary of the patent, approximately \$3,760.00 before the eighth anniversary and approximately \$7, 700.00 before the twelfth anniversary of the issuance of the patent. The maintenance fees are half those amounts for small companies.

Please bear in mind that Congress and the U.S. Patent and Trademark Office increase fees essentially annually, so the cost can be expected to rise accordingly.

# 16. Foreign Patents

Patents may be obtained in most foreign countries by filing a patent application in the patent offices of those respective countries. There are several treaties in existence that allow inventors to obtain a legal filing date in the foreign countries, and that legal filing date is by law the same as the filing date in the United States. The treaties can be important because most foreign countries prohibit a patent if the invention was publicly disclosed before the legal filing date.

To obtain a US filing date in foreign countries, inventors must file applications and take other required actions within the time limits set by the treaties. Because the first such time limit is one

year from the U. S. filing date, inventors can postpone any consideration of foreign filing for nearly a year from the U. S. filing date without loss of rights. We ordinarily send a letter to clients before the one year deadline expires, but we also suggest that clients mark their own calendar to inquire about it about 10 months after the U. S. filing date if they believe they might be interested in obtaining any foreign patents.

Most foreign countries do not have the one year grace period which the U. S. law provides (see the last paragraph under "8. Filing a Complete ("Non-Provisional") Utility Patent Application" above). Therefore, if an inventor thinks foreign patents may be of interest, he or she is contemplating making an invention public, and has not yet filed a patent application, we would recommend he or she contact us before making the invention public.

Foreign filing can be expensive and the costs and estimates are subject to variations in currency exchange rates. We can provide cost estimates so that inventors can determine whether to file for foreign patents based upon anticipated costs.

#### 17. Conclusion

The process for obtaining a patent is complex, and is a significant investment. Inventors can assist patent attorneys if they have some knowledge of the steps normally taken when a patent is sought. Additionally, it is very important to us that a client be well informed about anticipated events and expenses. Please feel free to ask questions of us at any time.

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