BRIEF INTRODUCTION TO PATENTING IN THE US

“The patent system added the fuel of interest to the fire of genius.”
  - Abraham Lincoln.

INTRODUCTION

The great inventor Thomas A. Edison once said, “One might think that the money value of an invention constitutes its reward to the man who loves his work. But... I continue to find my greatest pleasure, and so my reward, in the work that precedes what the world calls success.”

Being named as an inventor on an issued patent continues to be a rewarding achievement and allows an inventor to join the ranks of individuals such as President Lincoln (who was the only U.S. president who has received a U.S. patent), Steve Jobs, etc., just to name a few.

At the same time, it is also paramount for the inventors to recognize and consider the commercial aspects of their inventions as the patent applications progress through the patent system. Some patents never have any commercial value while others gain instant market acceptance. It is also common that additional resources, trial and error, and repeated failures, are required before any money-making return is realized from an issued patent.

This brief guide serves as an introduction to patenting in the United States for inventors and does not cover all aspects of the United States patent system. We hope you will find this guide helpful in continuing to generate the sparks of innovation.

- Arthur Tan-Chi Yuan, on behalf of the patent clinic.

A patent is a type of property right. It gives the patent holder the right, for a limited time, **to exclude others from making, using, offering to sell, selling, or importing into** the United States the subject matter that is within the scope of protection granted by the patent. However, it is up to the patent holder to enforce his or her own rights if the United States Patent and Trademark Office (USPTO) does grant a patent. Patent laws and regulations are found at Title 35 of the United States Code (U.S.C.), and Title 37 of the Code of Federal Regulations (CFR).

Therefore, the patent right requires an inventor to first file a patent application before the USPTO, which is the government agency responsible for examining patent applications and issuing patents.

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1 [http://www.uspto.gov/patents/resources/types/utility.jsp#heading-1](http://www.uspto.gov/patents/resources/types/utility.jsp#heading-1)
Before an inventor wishes to submit a patent application protecting his/her invention, the threshold question is whether the invention is a patentable subject matter. Section 101 of the Title 35 of the United States Code (U.S.C.) states that “Whoever invents or discovers any new and useful (1) process, (2) machine, (3) manufacture, or (4) composition of matter, or (5) any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”

Not all inventions are patent eligible. For example, the following categories have been determined as not eligible for patent protection:\(^2\):

- Laws of nature;
- Physical phenomena;
- Abstract ideas;
- Literary, dramatic, musical, and artistic works (these can be Copyright protected);
- Inventions which are:
  - Not useful (such as perpetual motion machines); or
  - Offensive to public morality

Once it has been determined that your invention is a useful process, machine, manufacture, or composition of matter, or a combination thereof, the invention needs to be novel and nonobvious. In addition, the invention needs to be described clearly and adequately to enable one skilled in the art to understand and practice the invention without undue experimentation. Lastly, the invention needs at least one claim in clear and definite terms to set forth the boundary of the invention.

In summary, a patent needs to satisfy the following 5 basic requirements:

1. Invention falls within one of the patentable categories;
2. Novel;
3. Nonobvious;
4. Described clearly and adequately to be enabled;
5. Includes at least one claim in clear and definite terms.

**Patent applications**

The Patent application is a complex legal document that satisfies legal requirements needed to obtain a patent and describes technical accuracies of the invention. It is like a contract between the inventor and the public/government. Typically, a patent application, whether a provisional or nonprovisional application, is best prepared by one trained to prepare such documents.

**Three types of patents**

There are three types of patents – utility, design, and plant. Within the utility and plant types of patent applications, there are two subtypes: provisional and nonprovisional. The design patent application does not have the provisional subtype

and only has the nonprovisional subtype. All nonprovisional applications are examined, and all provisional applications are not examined.

A provisional application is a quick and inexpensive way for inventors to establish a U.S. filing date for their invention which can be claimed in a later filed nonprovisional application. This earlier date, known as the priority date, determines whether an invention is novel. A provisional application is automatically abandoned 12 months after its filing date. The advantage of this U.S. filing date based on the provisional application will vanish if an applicant fails to file a corresponding nonprovisional application during the 12-month pendency period of the provisional application. Moreover, the provisional application needs to adequately disclose the invention in order to establish the support for the later-filed nonprovisional application.

Filing and Examination of nonprovisional patent application

To comply with the filing requirements, a nonprovisional application needs to include a specification describing embodiments of the invention, disclosing the best mode of the invention and enabling the invention to those skilled in the art. The specification may also include drawings or figures if they are helpful in understanding the invention. The specification must include at least one claim setting forth the boundary of the invention. The filing requirements also include an oath or declaration signed by the inventor and necessary filing fees, i.e., basic filing fee, search fee, and examination fee. For additional information, please be sure to consult a patent attorney or patent agent and the USPTO website: www.uspto.gov.

Once a nonprovisional application is filed complying with all filing requirements, it is scheduled to be examined by a patent examiner and may be issued as a patent if all the requirements for patentability are met.

During this examination process (or known as “patent prosecution” by patent practitioners), the patent examiner will search for technologies similar to the invention to determine the questions of novelty and nonobviousness. The examiner will also review whether a patent application complies with other formatting formalities (e.g., page margin, drawing orientations, etc.). After the search, the patent examiner will issue “Office actions” objecting to or rejecting contents of the patent application, such as the claims, specification, and drawings. The applicant needs to properly and timely respond to these rejections and objections before the application is deemed abandoned.

If one succeeds in persuading the examiner that the claimed invention deserves a patent, the examiner will issue a notice of allowance. After receiving the notice of allowance, you will pay the issue and publication fees before a patent is issued to you. All patents are issued and published on a Tuesday, and you will receive a patent certificate in the mail.

Maintaining the patent
Once the utility or plant patent is issued, you need to pay maintenance fees to maintain the patent during its term. Currently, you will pay the maintenance fees at the following intervals: 3.5 years, 7.5 years, and 11.5 years from the date of issuance. For design patents, no maintenance fee is required. Failure to pay the maintenance fee will result in the abandonment of the patent, which means the patent holder cannot enforce it against an infringer.

The utility and plant patents have a term beginning from the date of issue and ends 20 years from the date of the earliest filing date of the patent application. The design patent has a term starting from the date of issue and ends 14 years from the date of issue.

The following flowchart, created by the USPTO\(^3\), shows a typical patent application process in the US. For more introductory information about filing a patent application in the US, please visit the USPTO website at [http://www.uspto.gov/patents/resources/types/utility.jsp](http://www.uspto.gov/patents/resources/types/utility.jsp).

\(^3\) [http://www.uspto.gov/patents/process/index.jsp](http://www.uspto.gov/patents/process/index.jsp)
For more information about patent, please visit this page dedicated to the inventors on the USPTO website: http://www.uspto.gov/patents/index.jsp.