Overview of the Patenting Process

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• What is a Patent?

A patent is an enforceable writ providing ownership rights of an invention to an inventor. The government offers a patent to an inventor in exchange for publicly disclosing their invention. A patent, then, is not an award for some novel discovery, as many suppose, but a government enforced promise to guarantee a monopoly for a period of time *after* an inventor has disclosed the invention to the government.

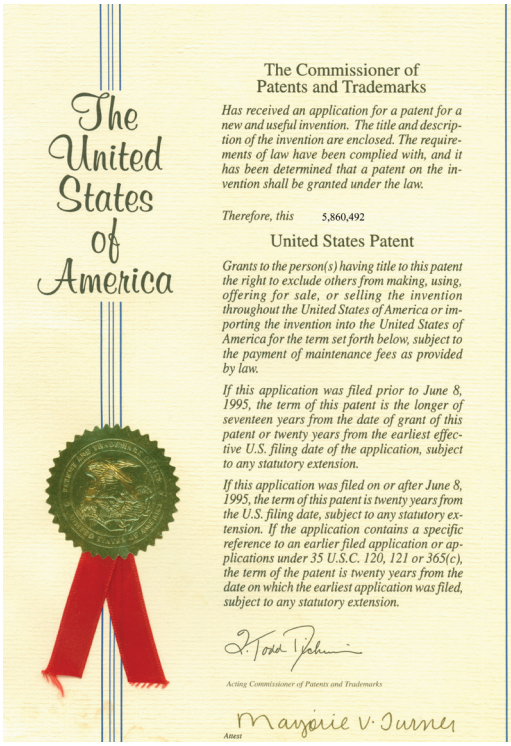
A patent is provided, then, to incentivize disclosure of an invention to the government, to prevent inventors keeping their discoveries private, and enable continued practice of the invention after the inventor has passed on.

The arm of the Federal government responsible for determining patentability of inventions is the United States Patent and Trademark Office (U.S.P.T.O.).

A US Patent grants an inventor a temporary monopoly restricting competitors from practising the invention for an enforceable term.

In the US, utility patents last for 20 years from the filing date.

Design patents last for 14 years from the issue date.


The United States of America

The Commissioner of Patents and Trademarks

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this 5,860,492

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

Acting Commissioner of Patents and Trademarks

Attest

Patent applications are prosecuted before the United States Patent and Trademark Office.

• What types of Patent are there?

There are three types of patent the United States Patent and Trademark Office offers inventors.

Utility patents are provided for any new, or useful improvement in, any process, machine, manufacture, or composition of matter. Utility patents protect across embodiments of a single invention (in other words the form of the invention can change, but so long as the same essential structure or method is applied, then the patent still stands). Utility patents are typically the preferred patent type selected by most inventors. *Note: Intended use is NOT patentable subject material.*

Design patents are provided to protect the design of an object. Design patents only protect the way something looks, not the way that it works. An example is a thumb drive that is engineered in a certain shape, like a cartoon character, for example. Because the shape does not effect the operability of the object, it is separate from the object, and therefore considered as a design. Design patents are limited to the illustrations provided as part of the design application.

Plant patents are provided for inventors of asexually reproducible, non-tuberous plants, found in a cultivated area.

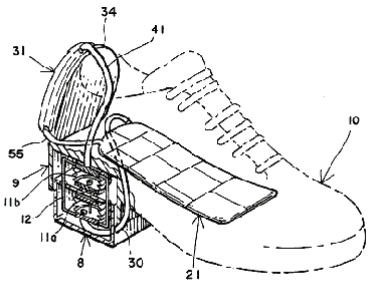
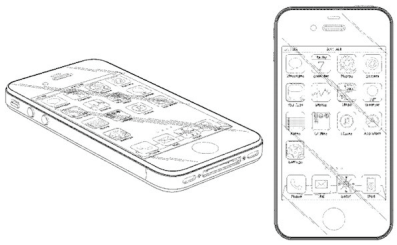


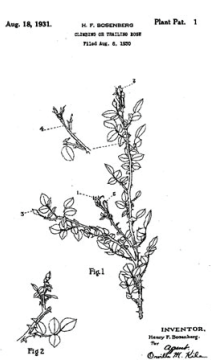
FIG. 2

Utility patents protect the way something works – that is, a utility patent protects specific structures (or specific steps in a method) that enable a function.

Intended use of a particular device is irrelevant. Only structure that enables a function is patentable.



Design patents protect the way something looks. The design is an ornamental concern – that is, it in no way effects the way the device or object functions, and has, in and of itself, no utility. The shape of the iPhone (which has many utility patents enabling the way it actually works) is protected by a design patent.



Plant patents protect certain asexually reproducible plants that are non-tuberous and found in a cultivated area.

•Patent Applications

Each type of patent must be applied for at the USPTO. Applications are "prosecuted" before the USPTO by "patent practitioners" on behalf of inventors.

A utility patent has two types of application, the **provisional application** and the **nonprovisional application**.

In order for a utility patent to be attained by an inventor, a **nonprovisional application** *must* be submitted to the patent office.

A **provisional application**, on the other hand, is essentially an optional step an inventor can use to temporarily secure a filing date, *so long as a nonprovisional application is subsequently filed within twelve (12) months of the provisional's filing date!*

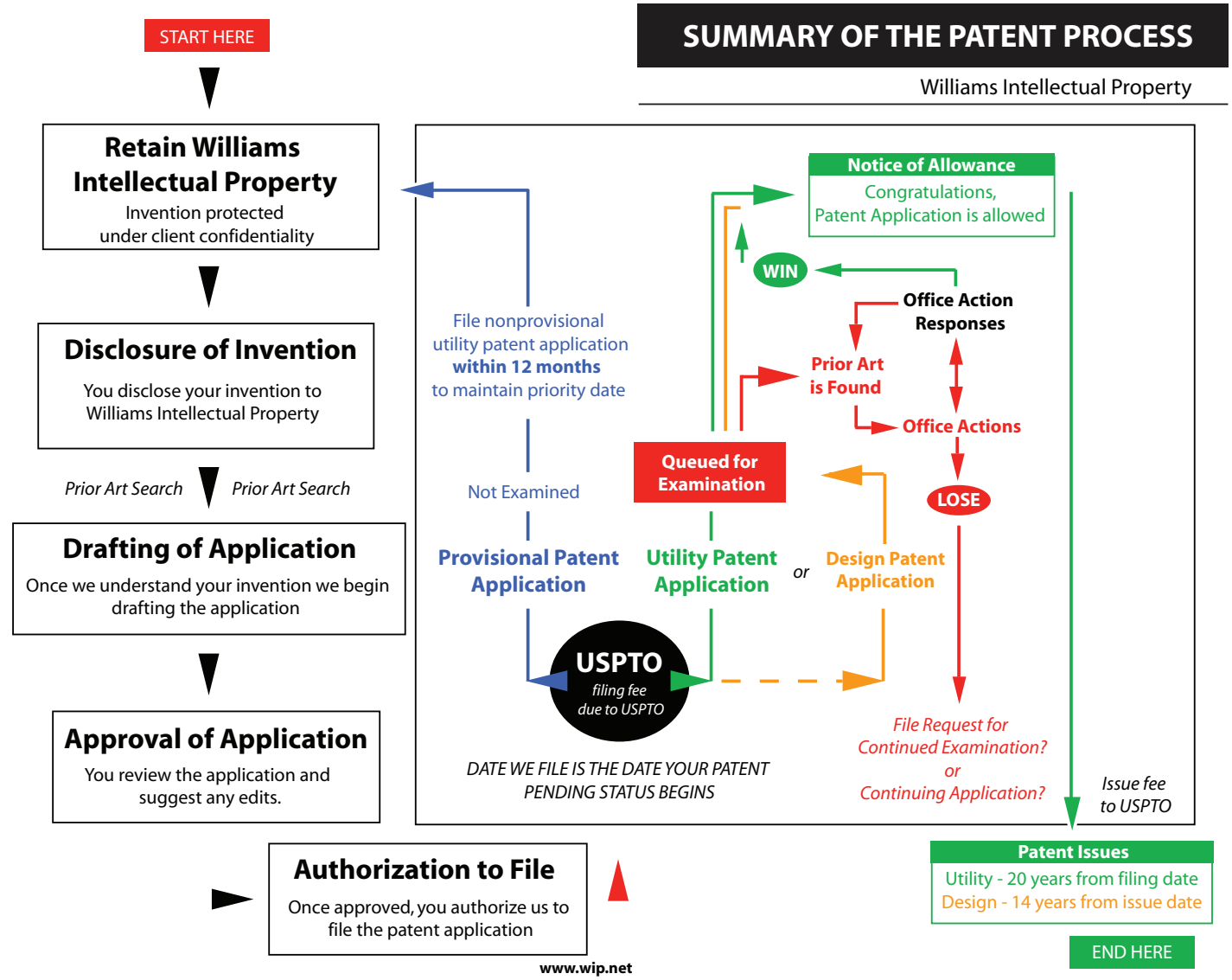


FIGURE 1 – Overview of patent application prosecution at the USPTO

• Nonprovisional Application for Utility Patent

A nonprovisional application for utility patent must satisfy certain requirements at the USPTO. It must "enable" the invention, that is, a person of ordinary skill in the art to which the patent application pertains must be able to "practice" the invention from reading the nonprovisional application. In other words, the application must contain enough information for a person of ordinary skill in the art to be able to understand how to build and/or execute the invention.

Intended use of an invention is not patentable. Only specific structure (or steps to a method) that enables a function is patentable subject material. Thus any function performable by any particular structure is covered in a utility patent (e.g. a hammer is protected under the same patent whether it is used as a tool in construction or as a weapon).

A nonprovisional application must have certain sections set forth to satisfy the "written description requirement". The written description (sometimes called the "specification") must inform the "claims" set forth that outline the "metes and bounds" of the invention adequately that an examiner understands how the claims limit embodiments of the invention.

Patent claims are a complex subject, and must conform to a particular format. Claims must be enabled by the specification – that is, claims must be properly supported by disclosure in the remaining patent disclosure.

Every nonprovisional application must be authored with care and consideration to the law, the prior art on record, and the inventor's disclosure, to properly protect the subject matter an inventor regards as their invention.

A nonprovisional application is examined at the patent office (see FIG. 1) and ultimately will either issue as a patent or be rejected over preexisting prior art.

• Provisional Application for Utility Patent

A provisional application is an optional, incomplete, and temporary filing inventors can use to rush a filing date to secure patent pending. A provisional application *is not examined by the USPTO*, but is secured in a database for one year from the date of filing. A nonprovisional application *must be filed* within that twelve month term to claim the benefit of the provisional's filing date, or else the provisional application will go abandoned. If a provisional application goes abandoned, an inventor *loses the filing date.* This is very important to understand because of the public disclosure statutory bar (see below) whereby an inventor can *permanently lose rights to the invention!*

A provisional application, then, basically allows an inventor to apply a filing date to a *later filed nonprovisional application* (see FIG. 2). It does not imply patentability and is not necessarily persuasive of patentable subject matter.

It is nonetheless very important that a provisional application is written appropriately. A provisional application needs to be able to withstand a legal team attempting to invalidate it's filing date, and thus gain priority to an invention for a competitor. A provisional application needs to set forth enough specificity regarding the invention to let a nonprovisional inherit its filing date, while remaining broad enough to cover additional disclosure in the nonprovisional without that additional disclosure being rejected as "new matter".

Example time line establishing a date of priorty by filing a Provisional Application for Letters Patent

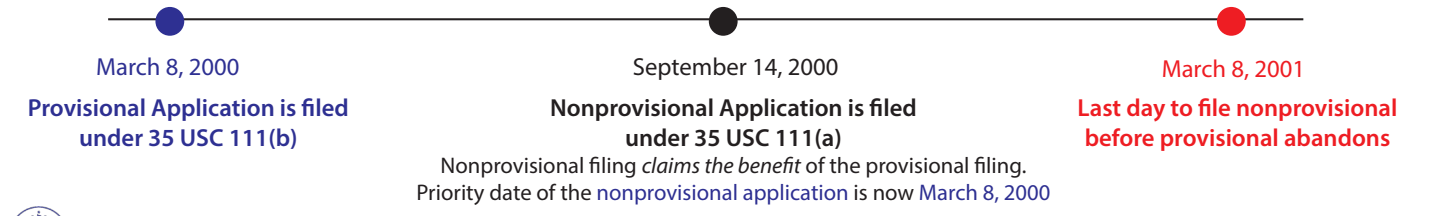


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FIGURE 2 – Overview of according a priority date to a nonprovisional application after filing a provisional application. Note, that if the provisional application goes abandoned, the priority date is lost. If more than a year elapses after an inventor publicly discloses their invention, and a filing date is not secured, an inventor can lose rights to the invention forever under the public disclosure statutory bar.

• The Public Disclosure Statutory Bar

35 U.S.C. 102(b) sets forth that anyone is entitled to a patent for any new or useful improvement in any process, machine, manufacture, or composition of matter, unless the same has been publicly disclosed, or is in public use, more than one year previous to filing.

Thus, if an inventor goes about publicly disclosing their invention, and fails to file for a patent within a year from the date of first public disclosure, then the USPTO will never grant a patent for the invention – as far as the USPTO is concerned, the public is already in possession of the invention, and there is no need to provide the patent to incentivize that disclosure. As far as the USPTO is concerned, an inventor has given their invention to the public. See FIG. 3 for an example timeline

Thus, if an inventor files a provisional application for utility patent, and then publicly discloses their invention – publicizes it, solicits funding or investment, or tries to sell the invention – the inventor must file a nonprovisional application within the year, or risk losing rites to the invention forever. As far as the USPTO is concerned, even an **offer to sell** – whether or not any specific information actually changes hands – constitutes public disclosure.

Example time line of public disclosure statutory bar raised for failure to maintain filing date

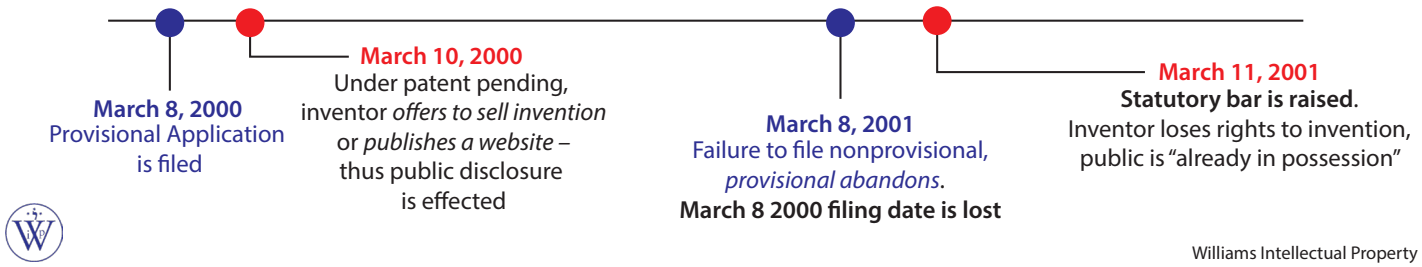

FIGURE 3 – Example timeline illustrating raising of the public disclosure staturoy bar for failing to maintain priority to a provisional application's filing date.

• Application for Design Patent

An application for design patent is a fairly straight forward proceeding. An application for design patent necessarily includes limiting illustrations that depict the particular design. A design patent is limited to the particular design illustrated by the drawings. A design patent **cannot** claim the benefit of a provisional application's filing date.

• Software Patents

Software is patentable under the "process" prong of 35 U.S.C. 101, as a method comprising distinct steps. The actual code that powers a software application is not patentable, *per se*. Neither is an algorithm. The only patentable feature of software is the method it enables.

Patenting software is complex. If you are patenting software, please call our office to discuss.

• Types of Rejections by the USPTO

The USPTO can reject a patent application under 35 U.S.C. 101, 102, 103, and 112.

35 U.S.C. 101 – Lack of patentable subject material

This type of rejection should not apply to inventions in the mechanical arts, as an application should not have been filed by any competent patent practitioner on behalf of an inventor if it lacks "patentable subject material." An example is any invention that attempts to claim a natural law (like gravity, for example), an abstract idea, or an invention that violates the fundamental laws of nature and is therefore impossible.

The exception is in **method claims**, such as are used in patenting business procedures and software. The 101 rejection is surprisingly common in applications for patents applied to software. A recent case, *Alice Corp. vs. CLS Bank Intl.,* settled by the Supreme Court in 2014, has sustained the USPTO's broad use of the 101 rejection over some applications setting forth claims to a particular method.

35 U.S.C. 102 - Anticipation

In order to reject a claim in an application for patent under 35 U.S.C. 102, an examiner must find each and every limitation set forth therein in a single prior art reference. This means the examiner must be able to find a previously disclosed invention that is substantially the same as the disclosure supplied in the patent application. In this case, an inventor's invention is said to be anticipated by the prior art.

35 U.S.C. 103 - Obviousness

Rejections under 35 U.S.C. 103 for obviousness are the most common rejections sustained by the USPTO. What constitutes "obviousness" is a complex issue, and has been determined by a century of case law. Essentially, 35 U.S.C. 103 allows an examiner to reject the claims in a patent application over a hypothetical combination of prior art references, wherein pieces of each reference can be applied to different limitations set forth in a claim. In order for such a rejection to be sustained, there must be motivation in the prior art references themselves to support the combination, and each of the references must be reasonably concerned with the same field of endeavor. Rejections for obviousness can be problematic, because an examiner can use as many prior art references as they can find.

35 U.S.C. 112 - Lack of enablement, failure to fulfill the written description requirement

Rejections under 35 U.S.C. 112 are put forth when the written description in the patent application fails to set forth enough information in the examiner's opinion for a person having ordinary skill in the art from practicing the invention. As long as an inventor has adequately disclosed their invention, rejections under 112 should be relatively uncommon.

• What is a prior art search?

A prior art search is an attempt to find previously disclosed material that may be relevant to a patent application's prosecution at the USPTO. A prior art search is directed to subject matter pertinent to an inventor's disclosure, subject matter that may already exist (hence "prior" art). A prior art search helps us to find any relevant material that may be out there, helps us determine strategy, and allows us to list specifc references on an Information Disclosure Statement when filing a nonprovisional application. This compels an examiner to review these references in light of the inventor's disclosure, and then provide an opinion on them, which can be useful to avoid potential claims of infringement down the road. Although no search can guarantee patentability, it can save a lot of money for an inventor if it appears clear that patenting is highly unlikely.

• Should I consider International Filing?

International filing of a patent application can be an expensive and complicated undertaking. If you are considering international filing, please contact our office directly.

The cheapest way to proceed for a US citizen is probably to file a domestic nonprovisional application with the USPTO, and then claim priority to that filing date with a subsequently filed Patent Cooperation Treaty (PCT) application using the USPTO as the International Search Agency (ISA).

A PCT application must be filed within one year of an inventor's filing date to claim priority to that filing date.

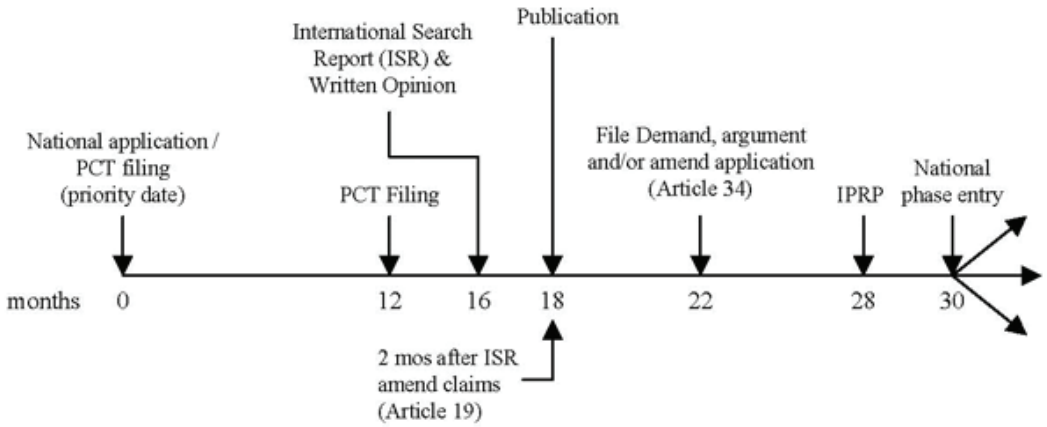

FIGURE 4 – Example timeline illustrating filing a PCT application to claim the benfit of a domestically filed nonprovisional application.

• Why choose Williams Intellectual Property?

We're certified by the Better Business Bureau and we're good at what we do. We write each application by hand – we don't just cut and paste disclosure provided to us and pass it off as a provisional application (like many other practitioners do).

We care about our customers. We're honest.

Additionally, Ben Williams offers a rare blend of science and English skills. For example, in previous occupations he has worked variously as a soil scientist for the USDA (agronomy comprises complex systems and applied physics, chemistry, and biology to delineate heterogeneous media where the biotic and the abiotic combine) and, conversely, as an award-winning journalist.

Occupying both hemispheres of the brain is crucial in understanding and articulating inventors' ideas to attain patent protection. Writing a good patent application is a rare blend of science and art.

We're here to assist you through the patenting process, which is daunting and complicated. It's what we do.