General information concerning patents

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Functions of the United States Patent and Trademark Office

The United States Patent and Trademark Office (USPTO or Office) is an agency of the U.S. Department of Commerce. The role of the USPTO is to grant patents for the protection of inventions and to register trademarks. It serves the interests of inventors and businesses with respect to their inventions and corporate products, and service identifications. It also advises and assists the President of the United States, the Secretary of Commerce, the bureaus and offices of the Department of Commerce, and other agencies of the government in matters involving all domestic and global aspects of "intellectual property." Through the preservation, classification, and dissemination of patent information, the Office promotes the industrial and technological progress of the nation and strengthens the economy.

In discharging its patent related duties, the USPTO examines applications and grants patents on inventions when applicants are entitled to them; it publishes and disseminates patent information, records assignments of patents, maintains search files of U.S. and foreign patents, and maintains a search room for public use in examining issued patents and records. The Office supplies copies of patents and official records to the public. It provides training to practitioners as to requirements of the patent statutes and regulations, and it publishes the Manual of Patent Examining Procedure to elucidate these. Similar functions are performed relating to trademarks. By protecting intellectual endeavors and encouraging technological progress, the USPTO seeks to preserve the United States' technological edge, which is key to our current and future competitiveness. The USPTO also disseminates patent and trademark information that promotes an understanding of intellectual property protection and facilitates the development and sharing of new technologies worldwide.

What Are Patents, Trademarks, Servicemarks, and Copyrights?

Some people confuse patents, copyrights, and trademarks. Although there may be some similarities among these kinds of intellectual property protection, they are different and serve different purposes.

What is a Patent?

A patent for an invention is the grant of a property right to the inventor, issued by the United States Patent and Trademark Office. Generally, the term of a new patent is 20 years from the date on which the application for the patent was filed in the United States or, in special cases, from the date an earlier related application was filed, subject to the payment of maintenance fees. U.S. patent grants are effective only within the United States, U.S. territories, and U.S. possessions. Under certain circumstances, patent term extensions or adjustments may be available.

The right conferred by the patent grant is, in the language of the statute and of the grant itself, "the right to exclude others from making, using, offering for sale, or selling" the invention in the United States or "importing" the invention into the United States. What is granted is not the right to make, use, offer for sale, sell or import, but the right to exclude others from making, using, offering for sale, selling or importing the invention. Once a patent is issued, the patentee must enforce the patent without aid of the USPTO.

There are three types of patents:

1) **Utility patents** may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof;
2) **Design patents** may be granted to anyone who invents a new, original, and ornamental design for an article of manufacture; and
3) **Plant patents** may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.

What Is a Trademark or Servicemark?

A trademark is a word, name, symbol, or device that is used in trade with goods to indicate the source of the goods and to distinguish them from the goods of others. A servicemark is the same as a trademark except that it identifies and distinguishes the source of a service rather than a product. The terms “trademark” and “mark” are commonly used to refer to both trademarks and servicemarks.

Trademark rights may be used to prevent others from using a confusingly similar mark, but not to prevent others from making the same goods or from selling the same goods or services under a clearly different mark. Trademarks that are used in interstate or foreign commerce may be registered with the USPTO. The registration procedure for trademarks and general information concerning trademarks can be found in the separate book entitled “Basic Facts about Trademarks.” (**http://www.uspto.gov/trademarks/basics/Basic_Facts_Trademarks.jsp**).

What is a Copyright?

Copyright is a form of protection provided to the authors of "original works of authorship" including literary, dramatic, musical, artistic, and certain other intellectual works, both published and unpublished. The 1976 Copyright Act generally gives the owner of copyright the exclusive right to reproduce the copyrighted work, to prepare derivative works, to distribute copies or phonorecords of the copyrighted work, to perform the copyrighted work publicly, or to display the copyrighted work publicly.

The copyright protects the form of expression rather than the subject matter of the writing. For example, a description of a machine could be copyrighted, but this would only prevent others from copying the description; it would not prevent others from writing a description of their own or from making and using the machine. Copyrights are registered by the Copyright Office of the Library of Congress.

Patent Laws

The Constitution of the United States gives Congress the power to enact laws relating to patents, in Article I, section 8, which reads "Congress shall have power . . . to 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." Under this power Congress has from time to time enacted various laws relating to patents. The first patent law was enacted in 1790. The patent laws underwent a general revision which was enacted July 19, 1952, and which came into effect January 1, 1953. It is codified in Title 35, United States Code. Additionally, on November 29, 1999, Congress enacted the American Inventors Protection Act of 1999 (AIPA), which further revised the patent laws. See Public Law 106-113, 113 Stat. 1501 (1999).

The patent law specifies the subject matter for which a patent may be obtained and the conditions for

patentability. The law establishes the United States Patent and Trademark Office to administer the law relating to the granting of patents and contains various other provisions relating to patents.

What Can Be Patented

The patent law specifies the general field of subject matter that can be patented and the conditions under which a patent may be obtained.

In the language of the statute, any person who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent," subject to the conditions and requirements of the law. The word "process" is defined by law as a process, act, or method, and primarily includes industrial or technical processes. The term "machine" used in the statute needs no explanation. The term "manufacture" refers to articles that are made, and includes all manufactured articles. The term "composition of matter" relates to chemical compositions and may include mixtures of ingredients as well as new chemical compounds. These classes of subject matter taken together include practically everything that is made by man and the processes for making the products.

The Atomic Energy Act of 1954 excludes the patenting of inventions useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon. See 42 U.S.C. 2181(a).

The patent law specifies that the subject matter must be "useful." The term "useful" in this connection refers to the condition that the subject matter has a useful purpose and also includes operativeness, that is, a machine which will not operate to perform the intended purpose would not be called useful, and therefore would not be granted a patent.

Interpretations of the statute by the courts have defined the limits of the field of subject matter that can be patented, thus it has been held that the laws of nature, physical phenomena, and abstract ideas are not patentable subject matter.

A patent cannot be obtained upon a mere idea or suggestion. The patent is granted upon the new machine, manufacture, etc., as has been said, and not upon the idea or suggestion of the new machine. A complete description of the actual machine or other subject matter for which a patent is sought is required.

Novelty And Non-Obviousness, Conditions For Obtaining A Patent

In order for an invention to be patentable it must be new as defined in the patent law, which provides that an invention cannot be patented if:

> "(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention" or
>
> "(2) the claimed invention was described in a patent issued [by the U.S.] or in an application for patent published or deemed published [by the U.S.], in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention."

There are certain limited patent law exceptions to patent prohibitions (1) and (2) above. Notably, an exception may apply to a "disclosure made 1 year or less before the effective filing date of the claimed invention," but only if "the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed… from the inventor or a joint inventor."

In patent prohibition (1), the term “otherwise available to the public” refers to other types of disclosures of the claimed invention such as, for example, an oral presentation at a scientific meeting, a demonstration at a trade show, a lecture or speech, a statement made on a radio talk show, a YouTube™ video, or a website or other on-line material.

Effective filing date of the claimed invention: This term appears in patent prohibitions (1) and (2). For a U.S. nonprovisional patent application that is the first application containing the claimed subject matter, the term “effective filing date of the claimed invention” means the actual filing date of the U.S. nonprovisional patent application. For a U.S. nonprovisional application that claims the benefit of a corresponding prior-filed U.S. provisional application, “effective filing date of the claimed invention” can be the filing date of the prior-filed provisional application provided the provisional application sufficiently describes the claimed invention. Similarly, for a U.S. nonprovisional application that is a continuation or division of a prior-filed U.S. nonprovisional application, “effective filing date of the claimed invention” can be the filing date of the prior filed nonprovisional application that sufficiently describes the claimed invention. Finally, “effective filing date of the claimed invention” may be the filing date of a prior-filed foreign patent application to which foreign priority is claimed provided the foreign patent application sufficiently describes the claimed invention.

Even if the subject matter sought to be patented is not exactly shown by the prior art, and involves one or more differences over the most nearly similar thing already known, a patent may still be refused if the differences would be obvious. The subject matter sought to be patented must be sufficiently different from what has been used or described before that it may be said to be non-obvious to a person having ordinary skill in the area of technology related to the invention. For example, the substitution of one color for another, or changes in size, are ordinarily not patentable.

The United States Patent and Trademark Office

Congress established the United States Patent and Trademark Office to issue patents on behalf of the government. The Patent Office as a distinct bureau dates from the year 1802 when a separate official in the Department of State, who became known as “Superintendent of Patents,” was placed in charge of patents. The revision of the patent laws enacted in 1836 reorganized the Patent Office and designated the official in charge as Commissioner of Patents. The Patent Office remained in the Department of State until 1849 when it was transferred to the Department of Interior. In 1925 it was transferred to the Department of Commerce where it is today. The name of the Patent Office was changed to the Patent and Trademark Office in 1975 and changed to the United States Patent and Trademark Office in 2000.

The USPTO administers the patent laws as they relate to the granting of patents for inventions, and performs other duties relating to patents. Applications for patents are examined to determine if the applicants are entitled to patents under the law and patents are granted when applicants are so entitled. The USPTO publishes issued patents and most patent applications 18 months from the earliest effective application filing date, and makes various other publications concerning patents. The USPTO also records assignments of patents, maintains a search room for the use of the public to examine issued patents and records, and supplies copies of records and other papers, and the like. Similar functions are performed with respect to the registration of trademarks. The USPTO has no jurisdiction over questions of infringement and the enforcement of patents.

The head of the Office is the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office (Director). The Director’s staff includes the Deputy Under

Secretary of Commerce and Deputy Director of the USPTO, the Commissioner for Patents, the Commissioner for Trademarks, and other officials. As head of the Office, the Director superintends or performs all duties respecting the granting and issuing of patents and the registration of trademarks; exercises general supervision over the entire work of the USPTO; prescribes the rules, subject to the approval of the Secretary of Commerce, for the conduct of proceedings in the USPTO, and for recognition of attorneys and agents; decides various questions brought before the Office by petition as prescribed by the rules; and performs other duties necessary and required for the administration of the United States Patent and Trademark Office.

The work of examining applications for patents is divided among a number of examining technology centers (TCs), each TC having jurisdiction over certain assigned fields of technology. Each TC is headed by group directors and staffed by examiners and support staff. The examiners review applications for patents and determine whether patents can be granted. An appeal can be taken to the Patent Trial and Appeal Board from their decisions refusing to grant a patent, and a review by the Director of the USPTO may be had on other matters by petition. In addition to the examining TCs, other offices perform various services, such as receiving and distributing mail, receiving new applications, handling sales of printed copies of patents, making copies of records, inspecting drawings, and recording assignments.

At present, the USPTO has over 11,000 employees, of whom about three quarters are examiners and others with technical and legal training. Patent applications are received at the rate of over 500,000 per year.

Effective November 15, 2011, any regular nonprovisional utility application filed by mail or hand-delivery will require payment of an additional $400 fee called the “non-electronic filing fee,” which is reduced by 50 percent (to $200) for applicants that qualify for small entity status under 37 CFR 1.27(a). The 75 percent micro entity discount does not apply to the non-electronic filing fee and consequently the non-electronic filing fee is also $200 for applicants that qualify for micro entity status under 37 CFR 1.29(a) or (d). This fee is required by Section 10(h) of the Leahy-Smith America Invents Act, Public Law 112-29 (Sept. 16, 2011; 125 Stat. 284).

The only way to avoid having to pay the additional $400 non-electronic filing fee is to file the regular nonprovisional utility patent application via EFS-Web.Design, plant, and provisional applications are not subject to the additional non-electronic filing fee and may continue to be filed by mail or hand-delivery without additional charge. See the information available at **www.uspto.gov/patents/process/file/efs/index/jsp**.

Any questions regarding filing applications via EFS-Web should be directed to the **Electronic Business Center at 866-217-9197**.

General Information and Correspondence

All business with the United States Patent and Trademark Office should be transacted in writing. Regular nonprovisional utility applications must be filed via EFS-Web in order to avoid the additional $400 non-electronic filing fee.

Other patent correspondence, including design, plant, and provisional application filings, as well as correspondence filed in a nonprovisional application after the application filing date (known as “follow-on” correspondence), can still be filed by mail or hand-delivery without incurring the $400 non-electronic filing fee.

Such other correspondence relating to patent matters should be addressed to

COMMISSIONER FOR PATENTS
P.O. Box 1450
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