

# **COPYRIGHT, TRADEMARK AND PATENT LAW: AN OVERVIEW OF THE INTELLECTUAL PROPERTY FRAMEWORK IN THE UNITED STATES**

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## **Summary**

This article provides an overview of the general principles of intellectual property law, with examples drawn from US law. Intellectual property in the US has become an increasingly important commodity. Accordingly, the legal regime governing intellectual property rights has undergone significant development in recent years. This article will discuss the three basic categories of intellectual property: patents, copyrights and trademarks. Patents grant inventors exclusive rights to their inventions. Copyrights provide the author of a creative or artistic work rights to the reproduction, distribution and sale of that work. Finally, a trademark is an exclusive right to a word, phrase, or symbol used in conjunction with a specific good to indicate the source of the goods and distinguish them from the commercial offerings of competitors. While these categories are distinct, a single product may be simultaneously protected by patent, copyright, and trademark laws.

## **1. Introduction**

“Intellectual Property” is an umbrella term for intangible, commercially exploitable assets. The three main forms of intellectual property are patents, copyrights, and trademarks. Each category of intellectual property is unique and independent. However, at times these groupings appear to overlap because a single commercial product may contain all three. For example, an electronic device could embody patented technology, display decorative, copyrighted artwork, and bear the federally registered trademark of the company that manufactured it.

In the US, as in most industrialized nations, intellectual property is viewed as an increasingly important component of commerce and trade. As a result, the US

government has been paying a lot of attention to various aspects of intellectual property protections and disputes, and tinkering with the statutory frameworks of patent, copyright, and trademark law. Each of these areas of the law has recently undergone frequent and sometimes drastic changes. What follows is a general overview of the basic principles of these legal regimes as they exist at present, written for the interested, intelligent non-lawyer. It is not intended to provide legal advice, nor does it supply the detail and specificity that a legal practitioner would require.

## **2. Patents**

There are three types of patents: design, plant, and utility. Design patents protect ornamental components of useful objects. To qualify for a design patent, a design must be new, original, and ornamental. Because design patents are considered rather weak intellectual property protection, most people prefer to protect their designs using copyrights. Plant patents are available to inventors of new and distinct varieties of plants. When most people discuss patents, they are referring to utility patents, and it is utility patents that will be discussed below.

The defining characteristic of a utility patent is that it provides its owner with the exclusive rights to an idea. The idea may be very “high technology” and complex, or it may be quite simple and straightforward. The specific legal privilege conferred by a patent grant is the right to exclude others from making, using, offering for sale, or selling the invention in the US, or from importing the invention into the US. A patent does not confer an affirmative right to make, use, sell or import an invention, and patent owners are sometimes precluded from exploiting their patented inventions by laws, contractual obligations, or other adverse circumstances. To illustrate: a pharmaceutical company might patent a new drug, but be unable to actually sell the drug until its safety and efficacy was demonstrated to the US Food and Drug Administration; or it may have previously agreed to license new drugs to another entity; or making and selling the drug might infringe another patent owned by someone else; or the drug could be illegal.

To qualify for a patent, an applicant needs to prove that his/her idea is “novel, useful, and nonobvious.” These words are terms of art, and will be explained in more detail below, but essentially mean that an invention must be unique, operative, and at least a little bit innovative. Patent law in the US is based on the Patent Act, a federal statute found in Title 35 of the US Code. Companies, and sometimes individuals, obtain patents to “protect” their ideas. A patent gives a patent owner the exclusive right to use, or license others to use, the patented invention for a limited period of time, currently about 17 years as will be discussed below in more detail. This exclusivity enables a patent owner to charge monopoly prices for the invention. Competitors may be able to offer similar products or processes, but they cannot make or use a patented invention without being vulnerable to legal action by the patent owner. In theory, the monopoly prices a patent owner can charge allow the patent owner to recoup the research costs and resources that were expended when the invention was developed. Monopoly profits acquired by patent owners are also available to invest in new research projects.

Not every patent generates monopoly profits, however. Some patented inventions are unsuccessful in the market place, and some patents are never commercially exploited at

all. Because filing a patent application and advocating for the patentability of the claimed invention (called “prosecuting a patent”) can be time consuming and expensive, most companies do not file patent applications for inventions unless they expect to either make a profit or prevent a competitor from commercially exploiting a product or process. Individual or “small” inventors will sometimes patent inventions for vanity reasons, or in hopes of attracting investors.

The first step in obtaining a patent is to develop a patentable invention. A patentable invention can be a product, such as a new machine to clean floors, or a process, such as a new method of removing impurities from water. Once an invention is operable, the inventor, or anyone the inventor has assigned rights to the invention, can apply for a patent. A patent application must contain a full description of the invention that is adequate to teach others of ordinary skill in the pertinent technological or scientific discipline how to make or use the invention. Based on disclosures in the patent application, a government agency, the Patent and Trademark Office (PTO), then makes a determination about whether the invention is sufficiently novel, useful and nonobvious. The PTO maintains an informational website at <http://www.uspto.gov> to discuss its role in the patenting process in more detail.

In the patent context “novel” means “new”; something that has never been made or used before in public. The reason for the novelty inquiry is to insure that no one patents a product or process that is already part of the public domain. A patent is a monopoly that must be earned. An inventor or her assignee earns a patent by publicly disclosing (in the patent application) a product or process that has never been made or used before, and is therefore deemed to advance scientific development for the benefit of society. The patent applicant must therefore be prepared to assert that the invention has never been known or used by others in the US before the applicant invented it, and that it has never been patented or described in a printed publication in the US or in any foreign country.

“Useful” means operable, in the sense that the product or process achieves the result that the inventor claims it will. One could not patent a perpetual motion machine, for example, even if its design was highly novel, unless the patent applicant could prove that the machine actually worked (a dubious prospect, at least according to current scientific understanding). At one time patent applicants had to demonstrate some sort of beneficial usefulness for the invention, but that is no longer the case. Even if the invention is so expensive and inefficient that no rational person would ever make or use it, the invention is still eligible for a patent as long as it is capable of performing the function ascribed to it, and meets the other requirements of patentability, such as novelty and nonobviousness.

The “nonobvious” requirement is the most difficult to describe, predict, or ascertain, because it is subjective and rooted in relativism. To be deemed nonobvious, an invention must not only be new, but must also reflect some degree of creativity and cleverness. A new invention that appears to be something anyone could have thought up without much effort would be considered “obvious” and therefore unpatentable. If the invention was rather simple, such as a uniquely shaped paperclip, the specific query would be whether people ordinarily skilled in the art of designing paperclips would find the new shape obvious, or concede that the new paperclip shape was an unexpected (and

therefore nonobvious) advance in the art of using small pieces of metal wire to temporarily join sheets of paper.

For a more sophisticated invention the threshold question would remain the same, but the evaluative benchmark would be elevated. For a novel invention related to genetic engineering, the test of obviousness might be whether or not the invention was something that a PhD-holding molecular biologist of ordinary skill might have stumbled across with little effort or imagination. Alternatively expressed, to be sufficiently nonobvious, an invention must differ from the state of the pertinent art enough so that it would not have been obvious to a person having ordinary skill in that field. Inventions deemed “obvious” are said to represent mere technical tinkering or journeyman modifications of existing inventions, and are not patentable.

Many pending patent applications are published and accessible to the public 18 months after they are filed. Once the PTO determines that an invention is patent-worthy, a patent is said to “issue” and the information contained within the patent application becomes available to anyone who is interested. The patent provides the invention owner with exclusive rights to make and use the invention for a set period of time. At present, the patent is valid enforceable for 20 years from the date that the patent application is filed. However, the patent is not enforceable (in other words, legal action cannot be taken against unauthorized users of the invention) until the patent issues. On average, it takes 3 years for an application to be fully evaluated. As a result, the monopoly created by a patent typically lasts about 17 years. Unless the invention is a pharmaceutical product or medical device or product that will be subject to testing and approval by the Food and Drug Administration, it is very unlikely that a patent will be valid and enforceable for longer than 20 years after the date that the application for the patent was filed with the PTO.

Each patent has a cover sheet, which lists the patent number, the date of issuance, the name of the inventor, the title, and provides an abstract, a brief description of the invention. Following the cover sheet is a series of drawings, which illustrate the invention. Next is the written specification. The specification has a particular format, which includes a title, an introductory paragraph disclosing any prior related patent applications, and a background of the invention, which sets forth the prior art and the purpose of the particular invention. Then there is a summary of the invention, a brief description of the drawings, and a detailed description of the invention. Following the detailed description of the invention are the claims, the most important part of the patent.

The claims set forth the metes and bounds of what the government has granted to the patent owner, describing the scope of the invention and what the patent owner can prevent others from making, selling or using. Patent claims generally use very specific language that appears stilted and difficult to comprehend to individuals who are unfamiliar with patent drafting practices and procedures. Even people familiar with an invention may have difficulty conceptualizing it from the claims.

For example, the claims of a patent for a new type of hairbrush might read as follows:

“...a handle portion; and a tubular brushing portion extending from said handle portion and having a plurality of longitudinal bristles projecting therefrom, at least some of said bristles being suitable elongated for penetrating through multiple layers of hair, said brushing portion having flock between said bristles for contacting the outer hair layer during movement of said bristles through said layers of hair, said flock comprising a plurality of fine filaments, each filament having a length of less than about 2.5 mm, the density of the flock being sufficient to prevent a substantial number of layers of hair from penetrating into the flock.” (Excerpted from the claims of US Patent No. 4486915.)

Claims that describe an invention very generally are referred to as “broad” claims, and are used to try to construct a large scope of exclusivity. However, if claims are drafted too broadly they may overlap with knowledge and technology that already exists, beyond that which has been newly conceived of by the patent inventor. Claims that do this are said to “read on the prior art,” and are not valid enforceable. Narrowly constructed claims are less likely to read on the prior art, but because they carve out a more slender scope of exclusivity for a patent owner, are usually viewed as less valuable.

The person who comes up with an invention, and figures out how to make it work, is called an inventor, and, in the absence of any contract to the contrary, is deemed to own the patent to her invention. An invention can have more than one inventor, but inventors must always be humans. A corporation cannot claim to be an inventor, even if all of the inventors of an invention were employees of this corporation. However, most corporations require all of their employees to sign contracts called “pre-invention assignment agreements” which require employee inventors to turn over the patent rights of anything they invent to the company that employs them. As a result, many inventors do not own the patents to their inventions. Rather, a patent is typically owned by an inventor’s employer.

If another entity makes or uses a patented invention without the permission of the patent owner, this entity is said to be an infringer. Patent owners can enforce their exclusive patent rights by asking courts for injunctive relief (typically a court order requiring the infringer to stop engaging in infringing activities) and for monetary damages. Patent infringement suits tend to be very complicated and expensive. In addition to denying that they are infringing a patent, an accused infringer can attack the validity of the patent at issue. If it can convince a court that a patent is invalid, an accused infringer prevails whether its conduct was putatively infringing or not. Bringing an infringement suit therefore can put a patent at risk of being declared invalid

For many years, though computer hardware could clearly be patented, computer programs, often referred to as software, were thought to be unpatentable. Recently, several court decisions have opened the door for computer software patents, and also for patents on so called “business methods.” As a result, many companies have begun patenting methods of doing business on the Internet, which may or may not implicate the computer programs these methods utilize. Whether (and how) these patents will be enforceable remains to be seen. As it has in the past, the patent law can be expected to undergo (sometimes radical) transformations in the future.

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### **Biographical Sketch**

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