
Howard Bromberg
University of Michigan Law School, hbromber@umich.edu

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History of U.S. Patent Law

A patent is an exclusive legal protection granted to inventors. It protects the intellectual property of those who create a new and useful invention against duplication by third parties for a fixed term of years. Under U.S. patent law, "invention" is a term of art broadly referring to technological, design, and aesthetic innovations or improvements. It also refers to new industrial and scientific processes as well as certain discoveries and manipulations of the natural world. However, principles of mathematical and natural science and mere ideas of any kind are not patentable. Patent law encourages and rewards the creativity of inventors with exclusive legal protection, while serving to eventually place all inventions in the public domain. Patent law has been instrumental in the growth of American business and in technological and scientific excellence. The law of patents is closely related to that of copyright and trademark. Copyright protects the creative works of authors and artists. Trademark protects the marks, brands, and insignias used by commercial enterprises to identify their products and foster good will.

The first modern patents arose in the flourishing commercial and guild culture of medieval Venice. In the fifteenth century, the Senate of Venice enacted a statute authorizing the Guild Welfare Board to grant exclusive privileges for ten years to inventors of new industrial methods. Venetian patents were granted for stoves, printing, and corn and flour mills. The idea of a patent was well known to English common law. The Crown granted monopolistic and charter privileges to merchants and traders, as a mark of favor and patronage, to raise revenue and to further English excellence and commerce in industry. In 1623, Parliament passed the Statute of Monopolies, which abolished royal prerogatives to grant monopolies but allowed for patents for terms of fourteen years for manufacturing inventions. Several of the North American colonies of Great Britain enacted their own versions of a patent law. The colony of Massachusetts enacted a loosely phrased patent statute in 1641, and the colony of Connecticut did likewise in 1672. Apparently, the first patent in the American colonies was granted to Samuel Winslow of Massachusetts in 1641 for inventing a new method of manufacturing salt for fisheries.

Federal Patent Law

After America declared independence from Great Britain, states continued to grant patents. However, the framers of the U.S. Constitution realized that the development of a national economy required the newly created federal government to possess the exclusive power to grant patents. Under Article I, section 8, clause 8 of the Constitution, Congress is given the 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.” Congress has passed patent laws on a steady basis, some acts completely revising patent law and some representing a mere refinement of existing law. The goal of patent law is to encourage and reward imagination and industry while ensuring fair competition and the widest dissemination of the fruits of human ingenuity. Patent jurisprudence has alternated between generous awarding of patents to reward inventors and restricting the number of patents so as to increase competition and lower entry costs to business.

Given the constitutional mandate, U.S. patent law is governed by federal statutes. The first patent act was passed in 1790 in the first congressional session. This Patent Act of 1790 authorized the granting of patents to the “first inventor or discoverer” of an invention if the invention was new and determined by a board consisting of the attorney general, the secretary of war, and the secretary of state to be sufficiently significant. The first federal patent granted was to Samuel Hopkins on July 31, 1790, for a new method of making industrial potash. However, it was soon realized that the examination of patents required of the cabinet officers was a burden to their other duties. A reform patent act was passed in 1793 allowing for the secretary of state to grant patents good for fourteen years. Most important, the act eliminated the examining board and allowed for a patent to be obtained by simple registration. This merely clerical system resulted in numerous useless and even fraudulent patents. As a result, perhaps the most important patent act was passed in 1836, establishing the modern patent system. It created a United States Patent Office as a bureau of the Department of State, headed by a commissioner of patents. As with the original 1790 board, the Patent Office was obligated not only to issue patents but also to investigate the merits of the applications, determining if the discovery or invention represented a true and useful innovation.

The Patent Act of 1836 also created the patent num-
Inventors and Inventions

shaped patent law. The 1883 Paris Convention for the also signed three international agreements that have expanded appellate rights of applicants. The United States has Trademark Office Authorization Act of 2002 broadened American Inventors Protection Act of 1999 provided for a term of twenty years from the filing date. The change from a term of seventeen years from the issue date to a term of twenty years from the filing date. The Court of Appeals for the Federal Circuit to hear, consolidated patent cases. In 1995, the length of patent protection was increased for inventions described in a printed publication in the United States or a foreign country. The Plant Patent Act of 1930 allowed for the patenting of laboratory-derived hybrid plants that reproduce asexually.

With the Great Depression, there arose greater public and judicial hostility to patents, as constituting restraints on business competition and trade. In the 1940's, the courts began to require that a patent show more than mere novelty and usefulness. In Cuno Engineering Corporation v. Automatic Devices Corporation (1941), the U.S. Supreme Court suggested that a patentable invention needed to show a "flash of genius." In Mercoid Corp. v. Mid-Continent Investment Co. (1944), the Court broadened its strictures on the misuse of patents. In Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corporation (1950), the Supreme Court disfavored patents that were new combinations of old parts. The community of investors, patent lawyers, and established businesses reacted against these trends. The Patent Act of 1952 invalidated these judicial doctrines and restored a more generous view of the granting of patents. It also updated the statutory language to make explicit that patents were provided for inventions and "processes." Processes are defined as the method or steps in achieving a useful technological result. The Atomic Energy Act of 1954 excludes the patenting of any invention that chiefly pertains to nuclear material or weapons.

In line with this trend, modern law has seen a major expansion in the types of things and methods that can be patented. In 1982, Congress created the United States Court of Appeals for the Federal Circuit to hear, consolidate, and provide expertise on the increasing volume of patent cases. In 1995, the length of patent protection was changed from a term of seventeen years from the issue date to a term of twenty years from the filing date. The American Inventors Protection Act of 1999 provided for the publication of patent applications. The Patent and Trademark Office Authorization Act of 2002 broadened the appellate rights of applicants. The United States has also signed three international agreements that have shaped patent law. The 1883 Paris Convention for the Protection of Industrial Property internationalized patent rights. The 1970 Patent Cooperation Treaty simplified the process for obtaining multinational patents. The Uruguay Round Agreements Act of 1994, implementing the Agreement on Trade-Related Aspects of International Property Rights, internationalized the twenty-year patent term. Many of the recent developments in patent law concern the scope of patentable subject matter in computer programming, biotechnology, and medical treatments.

How Patents Work

A patent is a valuable economic monopoly that allows the patent holder to exclude competitors from making use of, selling, or importing an invention for a fixed period of time. The Patent Act is found in Title 35 of the U.S. Code. Under section 101 of Title 35, "any new and useful process, machine, manufacture, composition of matter, or any new and useful improvement thereof" is patentable. Abstract ideas, natural phenomena, and laws of nature are not. Three types of patents may be obtained: utility patents, for new products or processes; design patents, for new design features of manufactured products; and plant patents, for new varieties of asexually reproduced plants. Under the current patent statute, a patent expires twenty years after the filing date. To obtain a patent, the inventor must submit a detailed description of the invention or process for publication upon grant by the government. This publication both protects the inventor’s intellectual property while placing the invention or process in the public domain upon the expiration of the patent.

To acquire a patent for an invention or improvement, the inventor first files an application with the Patent and Trademark Office. The process of applying for a patent is called patent prosecution; it is an often lengthy, technical, and expensive procedure. A provisional patent is a simplified process for retaining patent rights for one year before a regular patent application is filed. The patent application must contain a "specification," which refers to a written description and a claim. The written description usually includes a survey of the "prior art" that is the problem or opportunity facing the inventor, and related inventions in the field. The application also includes a summary of the invention or process and how it resolves the problem or opportunity. A detailed, technical description of the invention or process, usually accompanied by drawings or illustrations, is included. The description must be sufficient to disclose to a person skilled in the relevant field how to make and use the invention.
Thus, patent law not only encourages and rewards the inventor for his or her industry and imagination but also seeks to ensure that his or her ideas and methods are eventually open to public dissemination and competition. The claim defines the scope of the patent protection by describing what would constitute an infringement of the patent. The applicant must also sign an oath or declaration that he or she is the first inventor of the invention or improvement. Finally, the applicant must pay a filing fee.

Once a complete application is submitted, an expert examiner from the Patent Office examines the application for compliance with the requirements of the Patent Act. Under current law, to receive a patent grant, an invention must meet three requirements. First, the invention must be novel or new as compared with prior art—that is, not previously known or used in the United States or a foreign country. If the subject matter of the application has been in public use for more than a year, it is not new or novel. Second, it must be useful. To satisfy the requirement of usefulness, the invention must work as indicated and confer some utility or benefit to society. Third, it must be nonobvious—that is, not readily apparent on the basis of the prior art by a person of ordinary skill. If the patent application is judged to meet these three requirements, a patent is granted. If not, the examiner may object to the application or reject it. In response, the applicant may amend the application. If the application receives a final rejection, the applicant may file an appeal with the Patent Office Board of Appeals.

If the patent is granted, it is valid for twenty years from the date of the filing of the application. (A design patent is valid for fourteen years.) If the patent is infringed by a third party during this period, the patent holder may sue to recover money and perhaps punitive damages or enjoin the infringed use of the invention. The scope of patent rights, however, is often settled outside civil lawsuits by patent licensing contracts. Ownership rights to a patent may also be assigned to another party.

—Howard Bromberg

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