

PATENTS

I. WHAT IS A PATENT?

- A. The right to exclude others from using a particular invention.
- B. A patent is grant from the government (U.S. Patent & Trademark Office or PTO in U.S.) giving the owner a monopoly for limited period of time on use & development of an invention which PTO finds to qualify for patent protection
- C. Patent allows owner to prevent others from making, using or selling the patented invention
 - 1. Even if another person independently creates same invention
- D. Patent gives owner a monopoly, for limited period, in commercial exploitation of patented invention. In return for monopoly, inventor must disclose invention so others may use it subject to payment of a licensing fee
- E. Example: Phonograph (1878)
 - 1. Thomas Edison received patent #200,521 for the phonograph
 - 2. Human voice or other sounds could cause a plate to vibrate; A needle indented the plate, recording the vibrations; Another needle played back the recorded sounds; Edison used a tinfoil cylinder & stylus & recorded, Mary Had a Little Lamb
 - 3. Edison granted over 1097 patents in U.S. (light bulb, motion picture camera, etc.)

II. ABBREVIATED HISTORY OF PATENTS

- A. The word patent is derived from the term letters patent - documents from a king or queen granting a privilege or exclusive right to someone.
- B. Patent law originated in Venice, Italy as a way of granting privileges based on utility and novelty of inventions & the contrasting burden imposed by excluding others from the use of these inventions w/o payment.
- C. First patent issued in 1421 to Filippo Brunelleschi who invented a barge with lifting equipment used to carry marble upriver from quarries to Florence.

1. The introduction to Filippo's patent states: "he refuses to make such machine available to the public, in order that the fruit of his genius and skill may not be reaped by another without his will and consent; and that, if he enjoyed some prerogative concerning this, he would open up what he is hiding, and would disclose it to all."
 2. Filippo wanted control over his invention because economic changes had suddenly made it very valuable - dramatic increase in trade.
- D. In 1474, Venice enacted first formal patent law which began a framework of incentives based on property rights that encouraged experimentation & invention
1. "Be it enacted that, by the authority of this Council, every person who shall build any new and ingenious device in this City, not previously made in our Commonwealth, shall give notice of it to the office of our General Welfare Board when it has been reduced to perfection so that it can be used and operated. It being forbidden to every other person in any of our territories and towns to make any further device conforming with and similar to said one, without the consent and license of the author, for the term of ten years."
 2. Ownership rights afforded by patents helped create climate for high rate of technological innovation & advancement in Italy & elsewhere
- E. England: [Statute of Monopolies](#) in 1623
1. England was less industrially developed than France & used patents to encourage craftsmen to come to England to develop & improve industry
- F. **Patents in the United States**
1. U.S., like England about 200 years before, needed to promote technological development
 - a. During the colonial period, several states adopted patent systems.
 - b. George Washington, in his [first inaugural address](#), urged "the expediency of giving effectual encouragement, as well to the introduction of new and useful inventions from abroad as to the exertion of skill and genius at home."
 2. Authority to enact patent laws comes from U.S. [Constitution](#)

- a. Overall purpose is 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” [Art. I, §8, cl. 8](#) of Constitution (Copyright & Patent Clause)
3. Congress enacted the first [Patent Act](#), in 1790.
 - a. Provided that anyone who invented or discovered any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used could obtain a patent
 - b. Replaced in 1793 with statute authored by Thomas Jefferson
 - c. Revised in 1836, 1870, 1897, 1952 (current statute - title 35 of [United States Code](#))
4. [U.S. Patent & Trademark Office](#)
 - a. Issues patents
 - b. Maintains files of U.S. & foreign patents
 - (1) [Online search database](#) for all patents issued since 1976
 - c. Records assignments (transfers) of patents
 - d. Provides [information](#), [application forms](#), [fee schedule](#), etc.

III. **WHY DO WE HAVE PATENTS?**

- A. [Economic Rationale](#) - To provide incentive for creation of useful inventions, patent gives owner monopoly control on use
 1. Based on belief that inventors render useful services & best way to compensate them is by granting temporary monopolies (exclusive right to their inventions).
 2. Assumes that invention leads to industrial & technological progress which is desirable for the public good.
- B. In addition to incentive to inventors, also provides incentive to companies that invest in the production & marketing of inventions.

1. Encourages investment in research and development
2. Many companies spend millions/year in research & development of new products
 - a. Example: Pharmaceutical industry - See [this article](#)

IV. HOW DO YOU OBTAIN A PATENT?

- A. Unlike copyrights & trademarks which arise automatically, patents are granted by the government
- B. [Patent application](#): Written application must be file with U.S. [patent office](#) (or appropriate foreign [patent office](#))
 1. Application must specifically describe the invention and the protection claimed
 2. Most important part of application is the [claims](#) which describe exactly what protection is being claimed for.
 3. No requirement that the invention actually be built.
 4. Application is examined by [patent examiner](#) for compliance with the legal requirements for issuing a patent (see below).
 5. If there are any problems with application, examiner will communicated them to applicant (or representative) who has a period of time to respond in writing.
 6. Even after a patent is issued, it can be challenged as invalid through [reexamination](#) or a [lawsuit](#).

V. REQUIREMENTS FOR PATENTABILITY

- A. **Patentable Subject Matter** - Must fit one of 3 patent types:
 1. [Utility Patent](#)
 - a. Most common type
 - b. Covers wide variety of inventions & discoveries

- (1) Includes processes (methods of doing something)
- (2) Example: Automobile, monopoly game, genetically altered mice (See some famous patents [here](#))

2. Design Patent

- a. Covers new, original & ornamental designs for useful articles such as furniture, containers, etc.
- b. Design must be innovative & nonfunctional
 - (1) Ornamentality can be considered usefulness
- c. Example: Clothing designs, jewelry, etc. (See e.g., [Coke bottle patent](#))

3. Plant Patent

- a. Asexually or sexually reproducible plants (such as flowers) that are novel & non-obvious

B. Usefulness (Utility)

1. Must have some present benefit to humanity
2. Patent application must describe usefulness or specific advantages

C. Novelty

1. Some aspect of invention must be new
2. Patent only issued to first inventor
3. “A person shall be entitled to a patent unless:
 - a. (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
 - b. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country more than one year prior to the date of application for

patent in the United States” [35 U.S.C. §102\(a\) & \(b\)](#)

D. **Non-Obvious**

1. Sufficiently different from what has been used or described before
2. Prior Art Search: Patent examiners review [prior art](#) (existing patents, printed publications, etc.) to determine whether invention is already known
3. Distinct improvements are patentable

E. Application must be filed within 1 year from public use of invention

VI. **INTERNATIONAL PROTECTION OF PATENTS**

A. **First to File v. First to Invent**

1. U.S. follows a first-to-invent system
 - a. Patent granted to first person to make the invention, subject to some exceptions.
2. All other countries follow a first-to-file system
 - a. Patent granted to first person to file patent application regardless of when invention took place

B. Since patent laws of one country not applicable to other countries, countries have joined treaties to provide for protection of foreign patents under domestic law.

C. **Paris Convention for the Protection of Industrial Property (The Paris Convention)**

1. Main international treaty dealing with patents
2. Originally signed in 1883 by 11 nations (mostly European); Other countries gradually signed on & all major nations in world are currently members
3. Provides for priority right - allows patent owner in 1 nation to use its filing date as filing date in other member nations as long as the owner files another application within 6-12 months depending on type of patent.