"General information concerning patents," United States Patent and Trademark Office, https://www.uspto.gov/patents-getting-started/general-information-concerning-patents

---

- **What is a patent?**
    - A patent is a set of exclusionary rights granted to the patent holder by the United States Congress, that is issued by the Patent and Trademark Office. See Title 35 in the United States Code, titled ***American Inventors Protection Act of 1999*** (AIPA).
    - A patent is government-sanctioned monopoly.
    - A patent gives its owner(s) the right to exclude others for a period of time from making, using, offering for sale, selling, or importing into the United States a claimed invention, even if the invention was independently developed and there was no copying involved.
    - The patented invention must be disclosed to the public.

- **The Most Common Types of Patents**
    - See: http://www.uspto.gov/web/offices/ac/ido/oeip/taf/patdesc.htm
    - **Utility Patent**
        - http://en.wikipedia.org/wiki/Utility_%28patent%29
        - "Software" patents fall under this category
            - http://www.kuesterlaw.com/swpat.html
        - "Drug" (medical pharmacology) patents fall under this category
    - **Design Patent**
        - http://en.wikipedia.org/wiki/Design_patent
    - **Plant Patent**
        - http://www.uspto.gov/web/offices/pac/plant/
    - **Reissue Patent**
        - https://www.uspto.gov/web/offices/pac/mpep/s1401.html

---

- **Utility Patent Criteria**
    - Have a general understanding of the criteria for a utility patent claim:
        - http://nationalparalegal.edu/public_documents/courseware_asp_files/patents/Patents1/Utility.asp
    - Utility (Usefulness)
        - Regarding the concept of ***moral utility***.
            - As stated in [1], "[m]oral utility is a theory that an invention designed for an immoral purpose should not be patentable. **It has not been invoked to invalidate patents in recent years, leading many to conclude that it is a dead doctrine**."
            - For example, "**Misleading devices**. One well-known early example was a patent for seamless stockings with fake seams: at the time (the 1920s), stockings with seams were widely viewed to be higher-quality than seamless stockings, so the fake seams were seen as an attempt to

defraud consumers, and the patent was rejected. This line of jurisprudence ended in 1999, when the Federal Circuit upheld a patent for the Juicy Whip machine. The Juicy Whip is a lemonade dispenser which circulates an inert yellow liquid inside a visible tank while dispensing actual lemonade from a hidden tank below the counter: the Federal Circuit said that deceptiveness should not affect the utility of an invention" [1].

- "For many years ajudicially created 'moral utility' doctrine served as a type of gatekeeper of patent subject matter eligibility. The doctrine allowed both the USPTO and courts to deny patents on morally controversial subject matter under the fiction that such inventions were not 'useful.' […] The gate, however, is currently untended. **A combination of the demise of the moral utility doctrine, along with expansive judicial interpretations of the scope of patent-eligible subject matter, has resulted in virtually no basis on which the USPTO or courts can deny patent protection to morally controversial, but otherwise patentable, subject matter.** This is so despite position statements by the Agency to the contrary" [2].

- Novelty (Newness)
  - Statutory Bar (Disqualification under the law)
  - 35 U.S.C 102 "Conditions for patentability, novelty" [3] describes specific conditions that can bar (prevent) the USPTO from issuing a utility patent for a claimed invention.
- Non-obvious
  - "[…] the invention is compared to the prior art and a determination is made whether the differences in the new invention would have been obvious to a person having ordinary skill in the type of technology used in the invention" [4].

- **The parts of a Utility patent**
  - **Classification (U.S.)**
    - Class and subclass
      - Example: Class 700 := Data Processing: Generic Control Systems or Specific Applications
    - http://www.uspto.gov/web/patents/classification/selectnumwithtitle.htm
  - The **title** and **abstract**
    - http://www.law.cornell.edu/cfr/text/37/1.72
  - The **disclosure** (or **specification**) section describes in detail all the "technical" features of the invention—i.e., it explains how the invention works.
    - Useful for researching patents and determining the current "state of the art".
  - The **claims** section sets forth the legal scope of the patent
    - Written by a patent attorney

        - The legal description of the invention's scope (what the invention is / is not).
        - Patent infringement cases are prosecuted / defended based on the information provided in the *claims* section. The disclosure section provides only supporting evidence.
        - Two types of claims: ***independent*** and ***dependent***
            - http://infringingactions.blogspot.com/2010/04/patent-basics-iv-parts-of-patent-and.html
    - The **drawings** section contains detailed figures that illustrate the invention as described in the *disclosure* and *claims* sections.

    - **See also:**
        - http://www.patentapplications.net/faq/faq10.html
        - http://en.wikibooks.org/wiki/US_Patent_Law#Parts_of_a_patent

---

- **Software patents**
    - Software whose sole purpose is to perform mathematical operations cannot be patented—e.g., addition; converting base-10 numbers into base-2 numbers.
    - Patents cover **the underlying methodologies** embodied in a given piece of software, or **the function that the software is intended to serve in performing a process**, independent of the particular language or code that the software is written in.
    - **The software comprising the claimed invention must perform a function which the patent laws were designed to protect**—e.g., software that performs a data encryption process, or software that performs the function of controlling / automating equipment that performs a manufacturing process.
        - The MPEG-1 Audio Layer 3 (MP3) encoding scheme is an example of a software patent. (Reference: http://en.wikipedia.org/wiki/Software_patent)
    - http://ipspotlight.com/2012/04/11/the-importance-of-including-algorithms-in-software-patents/
    - Software Patents vs Software Copyright
        - Software Patent or Copyright: Everything You Need to Know [5]
        - Software Protection: Integrating Patent, Copyright, and Trade Secret Law [6]

- **Patent Application Categories**
    - **Nonprovisional application for patent**
        - This is the "official" application for a patent.
    - **Provisional application for patent**
        - https://en.wikipedia.org/wiki/Provisional_application
        - [7] http://www.uspto.gov/patents/resources/types/provapp.jsp
        - [8] http://www.ipwatchdog.com/2017/05/13/benefits-provisional-patent-application/id=83161/

- "A provisional application provides [a significantly reduced-cost] means to establish an early effective filing date in a later filed nonprovisional patent application filed under 35 U.S.C. §111(a). In is commonly used as defensive measure with respect to the "prior art" statutory bar. It also allows the term "Patent Pending" to be applied in connection with the description of the invention" [7].
  - The phrase ***early effective filing date*** simply refers to the strategy of getting your paperwork filed at the USPTO prior to disclosure of the invention (which starts the clock ticking for the "prior art" statutory bar), or prior to someone else filing at the USPTO for the same or similar invention, and thereby ensuring anything filed or disclosed after your effective filing date does not become a statutory bar for your own invention [9].
- A provisional application for patent is not examined (scrutinized by the clerks at the USPTO), and therefore the provisional application "is not required to have a formal patent claim or an oath or declaration" and "should not include any information disclosure (prior art) statement" [7].
- "A provisional application for patent has a pendency lasting 12 months from the date the provisional application is filed. The 12-month pendency period cannot be extended. Therefore, an applicant who files a provisional application must file a corresponding nonprovisional application for patent (nonprovisional application) during the 12-month pendency period of the provisional application in order to benefit from the earlier filing of the provisional application" [7]. If a nonprovisional application is not filed during the 12-month pendency period, the provisional application is abandoned at the end of its pendency period.
- "In accordance with 35 U.S.C. §119(e), the corresponding nonprovisional application must contain or be amended to contain a specific reference to the provisional application" [7].
- "Now that the United States has become a first to file country and abandoned our historic first to invent ways […] it is critically important to file a patent application as soon as practically possible. Filing a provisional patent application that adequately describes the invention will establish priority and satisfies the need to act swiftly under first to file rules. A well prepared provisional patent application is your best friend in a first to file world." "Describe whatever you can, file a provisional patent application and work toward perfecting the invention and seeing if there is a market. That is how provisional patent applications are best and why they are a valuable tool for those with a limited budget, which at the end of the day is everyone in the patent space. No one has enough money to protect everything they invent, not even mega-giant tech companies. So you take responsible steps forward to secure rights once you reach the point where you have something patentable" [8].
- "The earliest filing date of a 'provisional' (application) may be very important where, for example, a statutory condition of patentability is about to expire and there is insufficient time to generate a complete non-provisional application. In many cases, a provisional [application for patent] is filed the same day as a public disclosure of the invention,

which disclosure could otherwise permanently jeopardize the patentability in non-U.S. countries having strict requirements on 'complete or absolute novelty'. In other cases the provisional application is filed soon after such a disclosure in order to preserve only the inventor's U.S. patent rights" (underline added) [10].

- "The provisional filing date is not counted as part of the 20-year life of any patent that may issue with a claim to the provisional filing date" [7, 10].
- "The provisional application is also not 'published', but becomes a part of any later non-provisional application file that references it, and thus becomes 'public' upon issuance of a patent claiming its priority benefit" [7, 10].
- "[B]ecause a [provisional patent application (PPA)] is not made public unless its application number is noted in a later-published application or patent, the failure by an applicant to file a non-provisional application based on his/her PPA will not lead to public disclosure of his/her invention" [11].

- **Patent application publication**
  - By default, patent applications are published after a period of 18 months from the earliest filing date [12].
  - EXCEPTIONS. There are various exceptions.
    - "At the request of the applicant, an application may be published earlier than the end of such 18-month period" [13].
    - Generally, the patent application is not published if [12]
      - the application is no longer pending—e.g., either the patent application was denied, or the patent application was abandoned, or the patent application was approved and a patent issued.
      - the application is subject to a secrecy order.
      - the application is for a provisional patent, because provisional patents
        - are not examined, and
        - are pending for a maximum of 12 months, at which point they expire if they are not noted in a subsequent non-provisional patent.
      - the application is for a design patent.

- **Abandoned applications**
  - As defined in §901.02 "Prior Art" in the USPTO's Manual of Patent Examining Procedure [14], patent applications can be abandoned.
  - If an abandoned patent application was previously published, that patent application publication is available as prior art as of its patent application publication date [14].

- **Defensive actions: preventing a patent from being issued**
  - Submitting a patent application to the USPTO and requesting to have the patent application published sooner than the (default) expiration period of 18 months from the

earliest filing date, and then abandoning the patent application. This could be useful defensive strategy ensuring the USPTO regards invention as "prior art" relative to all subsequent patent applications, and thereby preventing others from patenting the same invention.

- Example use case: You created an "open source" invention and you want to ensure the invention enters into the public domain as quickly as possible to prevent others from patenting the invention.

- **"First to File" versus "First Inventor to File"**
  - Have a general understanding of the differences between "first to file," "first inventor to file" (a.k.a., "first to disclose"), and "first to invent" systems.
  - http://en.wikipedia.org/wiki/First_to_file_and_first_to_invent
  - **First to invent (USA's patent system PRIOR TO March 16, 2013)**
    - Know that PRIOR TO March 16, 2013, U.S. patent law was based upon a "first to invent" system.
  - **First to File (FTF)**
    - "In a first-to-file system, the right to the grant of a patent for a given invention lies with the first person to file a patent application for protection of that invention, regardless of the date of actual invention" [15].
  - **First Inventor to File (FITF) (USA STARTING March 16, 2013)**
    - Know that STARTING March 16, 2013, U.S. patent law became a "first inventor to file" system.
      - America Invents Act, H.R. 1249 (Calendar No. 87) was signed into law by President Obama on September 16, 2011.
  - **FTF versus FITF Systems**
    - Under a first to file (FTS) system, **the applicant can be any person**; the applicant need not be the actual inventor of the claimed invention. Under a first inventor to file (FITF) system, **the applicant must be the actual inventor** of the claimed invention.

- **Commissioned Invention and "Hired to Invent" Doctrine**
  - See the Article "Peregrine Puts Hired-To-Invent Issues in Spotlight" [16].
  - See Inventions Made for Hire by J. L. Simmons [17].
    - "Under this [hired-to-invent] doctrine, an employee hired to solve a particular problem or to invent in a certain field will forfeit his patent rights even without a written contract.[1] Just as in the work made for hire context [under Copyright law], courts have established a number of factors to indicate whether an

[1] See Standard Parts Co. v. Peck, 264 U.S. 52 (1924)

inventor has been hired to invent.[2] However, unlike work made for hire, the hired-to-invent doctrine requires the employee to assign any patent obtained; it does not vest title immediately in the employer upon invention.[3] Although, failure to assign after a court order to do so may result in the order having the same effect as an assignment."

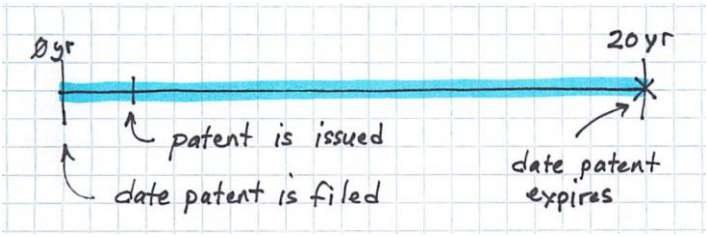
- "The hired-to-invent doctrine merely obligates the inventor to assign the invention to his or her employer. True, no negotiation is required after the inventive activity occurs, but until an assignment is signed, the invention's creator continues to hold the patent on the invention—albeit in trust for his employer. Furthermore, if the invention's creator refuses to assign his patent rights, then a court order is required. Second, the doctrine is only effective against employees who are actually hired to invent. Employees who create an invention within the scope of their employment but who were not specifically directed to do so retain their patent rights.[4] Third, unlike the work made for hire doctrine, which permits an employer to file a copyright registration in its own name, the hired-to-invent doctrine still requires the patent application to be filed in the inventor's name, even if the employer, as assignee, files a patent application on his behalf. Finally, as the employee is still considered the 'inventor' under the Patent Act, it is possible for future rights to be given to the 'inventor' that would not be automatically vested in the inventor's employer. For example, in the copyright context, when the right to terminate transfers of ownership was introduced as a right of 'authors,' it did not apply to those whose works were made for hire, as their employers were considered the 'authors.' Similar rights could be granted to 'inventors' that would affect the assignees of the inventors' patent rights."

- **"Shop Rights"**
  - https://blawgit.com/2006/08/23/shop-rights/
  - See [17]. "Shop rights do not have the same scope as work made for hire, however. A shop right is not an ownership interest in the patent, which means that an employer does not have either the right to exclude others by threatening to sue for infringement or the right to file a patent application.[5] Similarly, a shop right is non-exclusive, which

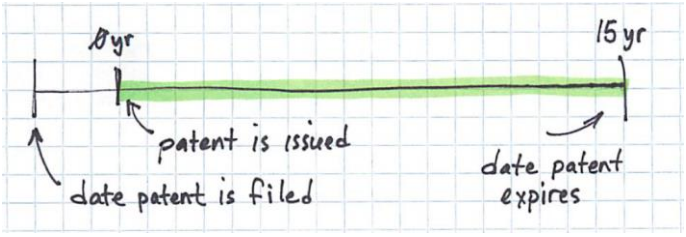
[2] Chisum, supra note 3, at § 22.03[2]
[3] See Standard Parts, 264 U.S. at 56–57
[4] See 1-5 Milgrim on Trade Secrets § 5.02[4][b]
[5] See Dubilier Condenser, 289 U.S. at 188 ("[W]here a servant, during his hours of employment, working with his master's materials and appliances, conceives and perfects an invention for which he obtains a patent, he must accord his master a non-exclusive right to practice the invention."); Kurtzon, 228 F. Supp. at 697 ("[The employer] has the right to use the plaintiff's invention but pays no royalties to the patentee. It has no property or title interest in the invention or the patent. [It] has no exclusive contract with the [employee] that others shall not practice the invention. At most [it] has a 'shop right' or license to use, manufacture and sell the [product] which is

means that the employee patent holder is free to assign rights to others by granting them a patent license. In addition, a shop right is not transferable other than with the sale of the entire appurtenant business." [6]

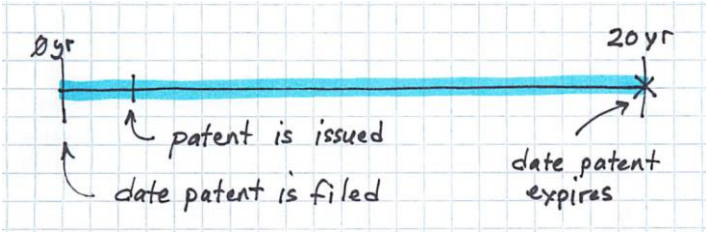
- **Patent duration**
  - For patent applications filed on or after June 8, 1995, if a patent is granted by the U.S. Patent and Trademark Office, **know the duration of each patent type**:
    - Provisional application for patent: One year (12 months) **from the effective filing date**
    - **Utility patents:** 20 years **from the effective filing date**



    - **Design patents:** 15 years **from the date of issue** [18]



    - **Plant patents:** 20 years **from the effective filing date**



---

not an exclusive contract and amounts to a bare license protecting [the employer] from a claim of infringement by [the employee]. . . . Such a licensee may neither sue alone nor join with the licensor patentee in an infringement action.") (citations omitted).

[6] See Lane & Bodley Co. v. Locke, 150 U.S. 193 (1893) (holding that the Hapgood doctrine would not be extended to a company that "was organized upon the same basis as the [predecessor company]; that the business of the company was to be the same as that carried on by [the predecessor], and to be carried on in the same premises; that the entire property and assets of the firm and its liabilities and obligations were devolved upon the [successor] company"); Hapgood v. Hewitt, 119 U.S. 226 (1886) (holding that although after the original corporation entitled to a shop right dissolved, the stockholders had created a new corporation—its successor in interest—the shop right did not cover the new corporation).

- **Typically, patents are NOT renewable**. When a patent expires, the owner loses exclusionary rights for the patented invention and the invention/design/plant enters the public domain.
  - **Special cases:** Under certain circumstances, distortions to the normal patent term may occur due to mandatory premarket regulatory approvals, which are often beyond the patent applicant's (or patent holder's) control. Therefore, a patent's term may be extended by a special **act of Congress** to make up for delays caused by outside/regulatory agencies—e.g., the *Food and Drug Administration's* drug approval process which can take years.
    - http://www.uspto.gov/web/offices/pac/mpep/documents/2700_2750.htm#sect2750

- **Utility patent periodic maintenance fees**
  - Know that utility patents are subject to periodic maintenance fees.
    - Plant and Design patents ARE NOT subject to maintenance fees.
    - Overview: https://www.uspto.gov/patents-maintaining-patent/maintain-your-patent
  - These fees help to pay the USPTO's operating costs.
  - https://www.uspto.gov/web/offices/pac/mpep/s2520.html
    - https://www.uspto.gov/web/offices/pac/mpep/mpep-9020-appx-r.html#d0e316217
  - **35 USC 41(h) "FEES FOR SMALL ENTITIES"**
    - https://www.uspto.gov/web/offices/pac/mpep/mpep-9015-appx-l.html#d0e301581
  - **35 USC 123 "Micro Entity Defined"**
    - https://www.uspto.gov/web/offices/pac/mpep/mpep-9015-appx-l.html#d0e301581

- **Patent infringement**
  - On the Wikipedia link below, read the following sections:
    - http://en.wikipedia.org/wiki/Patent_infringement
    - Opening section (the three, short paragraphs above the "Contents" block)
    - Elements of patent infringement
    - Piracy and "Patent Pirates"
  - Patent Trolls
    - Review the sections titled "Etymology and definition," "Causes," and "Effects" in this Wikipedia article: http://en.wikipedia.org/wiki/Patent_troll
    - **[NOT ON THE QUIZ]** The information in the following articles regarding the House of Representatives Bill H.R. 845 "Saving High-Tech Innovators from Egregious Legal Disputes Act of 2013," or the SHIELD Act, IS NOT ON THE QUIZ; it is for informational purposes only:

- https://www.eff.org/deeplinks/2013/03/shield-act-internet-shows-it%E2%80%99s-ready-smash-patent-trolls
- http://www.theatlantic.com/business/archive/2013/03/death-to-patent-trolls-how-a-new-bill-could-slay-techs-worst-parasites/273610/

Works Cited

[1] Wikibooks contributors. (2014, Mar. 14). *US Patent Law* [Online]. Available: https://en.wikibooks.org/wiki/US_Patent_Law. [Accessed: March 2, 2016].

[2] M. A. Bagley, "Patent First, Ask Questions Later: Morality and Biotechnology in Patent Law," *William and Mary Law Review,* vol. 45*,* no. 2, pp. 469-470, 2003 [Online]. Available: http://scholarship.law.wm.edu/cgi/viewcontent.cgi?article=1309&context=wmlr. [Accessed: March 2, 2016].

[3] United States Patent and Trademark Office. (2014, March 27). *35 U.S.C. 102 Conditions for patentability; novelty* [Online]. Available: http://www.uspto.gov/web/offices/pac/mpep/mpep-9015-appx-l.html#al_d1fbe1_234ed_52. [Accessed: March 18, 2015].

[4] National Paralegal College. *Patents, Trademarks & Copyrights* [Online]. Available: http://nationalparalegal.edu/public_documents/courseware_asp_files/patents/menu_patents.aspx. [Accessed: Sep. 16, 2013].

[5] UpCouncil, Inc. (2017). *Software Patent or Copyright: Everything You Need to Know* [Online]. Available: https://www.upcounsel.com/software-patent-or-copyright. [Accessed: Oct. 20, 2017].

[6] G. J. Maier, "SOFTWARE PROTECTION–INTEGRATING PATENT, COPYRIGHT AND TRADE SECRET LAW," *Journal of the Patent and Trademark Office Society,* vol. 69, no. 3, pp. 152-165, March 1987 [Online]. Available: https://www.oblon.com/publications/software-protection-integrating-patent-copyright-and-trade-secret-law. [Accessed: February 25, 2019].

[7] United States Patent and Trademark Office. *Provisional Application for Patent* [Online]. Available: http://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/provisional-application-patent. [Accessed: March 2, 2015].

[8] G. Quinn. (2017, March 13). "The Benefits of a Provisional Patent Application," *IPWatchdog* [Online]. Available: http://www.ipwatchdog.com/2017/05/13/benefits-provisional-patent-application/id=83161/. [Accessed: October 12, 2018].

[9] M. Henry. (2018, Feb. 8). *When's the Right Time to Start the Patent Process?* [Online]. Available: https://www.henrypatentfirm.com/blog/right-time-start-patent-process. [Accessed: October 12, 2018].

[10] Wikipedia contributors. (2014, Dec. 31). *Provisional application* [Online]. Available: http://en.wikipedia.org/wiki/Provisional_application. [Accessed: January 23, 2015].

[11] J. Calvert. (2010, April). "The Provisional Patent Application: What You Need to Know," *inventor's eye:* [Online]. Available: https://www.uspto.gov/learning-and-resources/newsletter/inventors-eye/provisional-patent-application-what-you-need-know. [Accessed: March 1, 2019].

[12] United States Patent and Trademark Office. (2015, November). *1120 Eighteen-Month Publication of Patent Applications [R-07.2015]* (9th ed.) [Online]. Available: http://www.uspto.gov/web/offices/pac/mpep/s1120.html. [Accessed: January 23, 2015].

[13] United States Patent and Trademark Office. *35 U.S.C. 122 Confidential status of applications; publication of patent applications* [Online]. Available: http://www.uspto.gov/web/offices/pac/mpep/mpep-9015-appx-l.html#d0e303054. [Accessed: March 2, 2016].

[14] United States Patent and Trademark Office. (2015, November). *901 Prior Art [R-08.2012]* (9th ed.) [Online]. Available: http://www.uspto.gov/web/offices/pac/mpep/s901.html. [Accessed: March 2, 2016].

[15] Wikipedia contributors. (2014, Dec. 4). *First to file and first to invent* [Online]. Available: http://en.wikipedia.org/wiki/First_to_file_and_first_to_invent. [Accessed: January 23, 2015].

[16] M. Bunis. (2014, July 25). "Peregrine Puts Hired-To-Invent Issues In Spotlight," *Law360* [Online]. Available: https://www.choate.com/uploads/1178/doc/Bunis,_Arslanian_-_Peregrine_Puts_Hired-To-Invent_Issues_In_Spotlight.pdf. [Accessed: October 20, 2017].

[17] J. L. Simmons, "Inventions Made for Hire," *N.Y.U. J. Intell. Prop. & Ent. L.,* vol. 2, no. 1, 2012, Nov. 26 [Online]. Available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2182171. [Accessed: March 13, 2015].

[18] United States Patent and Trademark Office. (2014, October). *General Information Concerning Patents* [Online]. Available: http://www.uspto.gov/patents-getting-started/general-information-concerning-patents. [Accessed: March 2, 2015].

