

A BRIEF INTRODUCTION TO PATENT LAW AND THE AMERICA INVENTS ACT
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Executive Summary: Patents give their owners exclusive rights to the “making, using, offering for sale, or selling” of new inventions and processes for a limited time. Typically, inventors and the companies that employ them file for patents. Patents play an essential in the economy— patents create legal monopolies for inventors and developers, therefore incentivizing technological genius, innovation, and production. Further, in exchange for these legal monopolies, patent owners reveal their inventions to the world—contributing to continued advancements in science, engineering, medicine, and more. Over the years, both Congress and the Supreme Court have heavily influenced the development of modern patent doctrine. Today, continuing rapid advancements in science and technology require lawyers to pay closer attention to the laws that influence and govern patent protection.

I. WHAT IS A PATENT?

A patent is a government-issued grant that gives its holder a legal monopoly on the “making using, offering for sale, or selling” of an invention throughout the United States or for importing the invention into the United States.¹ Patents may fall into one of two categories: utility and design.² Utility patents, which are the concern of most patent law proceedings, “protect[] the way an article is used and works”, while design patents “protect[] the way an article looks.”³ Additionally, utility patents generally issue for a period of twenty years, measured from the filing date of the patent application,⁴ while design patents may issue for a period of fourteen or fifteen years, depending on their filing date.⁵ After a patent expires, the patent owner loses their legal monopoly, and the patented subject matter becomes part of the public domain—meaning others are free to make, use, and sell the relevant inventions or process in the free market.⁶

Modern patent documents consist of two parts: the specification and the claims.⁷ As the Federal Circuit succinctly said, “Specifications teach. Claims claim.”⁸ The specification is a disclosure of the invention used to teach the reader about the particulars of the invention.⁹ In contrast, claims, which are “considered to be the most

¹ 35 U.S.C. § 154 (2018); *see also* CRAIG ALLEN NARD, THE LAW OF PATENTS 1 (4th ed. 2017) (“A patent gives its owner the *right to exclude*, a patent does not provide a positive right to make, use, or sell, the invention.”).

² MPEP 1502.01 (9th ed. Rev. 10, June 2020), <https://www.uspto.gov/web/offices/pac/mpep/mpep-1500.pdf>.

³ *Id.*

⁴ 35 U.S.C. § 154.

⁵ MPEP 1505 (9th ed. Rev. 10, June 2020), <https://www.uspto.gov/web/offices/pac/mpep/mpep-1500.pdf> (explaining that design patents filed before May 13, 2015 have a fourteen-year term, while those filed after have a fifteen-year term).

⁶ *See U.S. Patent Overview*, FINDLAW (June 12, 2017), <https://corporate.findlaw.com/intellectual-property/u-s-patent-overview.html> (explaining that, once a patent expires, anyone may make, use, offer for sale, or import the invention).

⁷ *See* NARD, *supra* note 1, at 47 (noting that claims are technically part of the specification under 35 U.S.C. § 112, but that patent professionals and courts treat claims and specifications as distinct).

⁸ SRI Int’l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1121 n.14 (Fed. Cir. 1984).

⁹ *Id.* at 1122.

important part of the patent document,” set the legal boundaries of the invention and precisely define what the patentee’s property rights cover.¹⁰

II. HOW DO I GET A PATENT?

The patent application process, which is known as patent prosecution, starts when the inventor files for the patent with the United States Patent and Trademark Office (PTO).¹¹ While trademark law protects the marks that identify the producers of goods, patent law protects the right to use, sell, and market new inventions.¹² Patent prosecution generates a prosecution history, which refers to the record of all proceedings between the PTO and the patentee regarding a particular filing.¹³ The PTO awards patents for *new* inventions; that is, patents cannot issue for concepts and objects already commonly in the public domain.¹⁴ “Prior art” is the term used to refer to all inventions, writings, and patents that came before and are related to a particular patent.¹⁵ For the patent to issue, it must be distinguishable from its prior art.¹⁶

III. ORIGINS OF PATENT LAW AUTHORITY

Patent law finds its basis in the United States Constitution, which granted Congress the power “[t]o 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.”¹⁷ The Patent and Copyright Clause is viewed both as a designation of an enumerated power of Congress and as a limitation on that power; specifically, the Constitution gave Congress the power to “grant[] *exclusive rights for limited times.*”¹⁸ This means patents only grant the right to exclude—thus giving its holder a legal monopoly—without other rights, though those rights must expire after some period of time. Congress has exercised its power to promote the sciences with many different patent laws, from the Patent Act of 1790,¹⁹ its first patent statute, to the Leahy-Smith America Invents Act (AIA),²⁰ the subject of this panel.

The modern patent system as it exists today is in large part attributable to the 1952 Patent Act.²¹ The 1952 Act served to codify some of the common practices of patent

¹⁰ *Id.* at 1118, 1121.

¹¹ See Joshua Scheufler, *Patent*, 27 TEX. INTELL. PROP. L.J. 139, 140–41 (2019) (detailing the PTO process).

¹² See *Trademark, Patent, or Copyright?*, U.S. PAT. & TRADEMARK OFF. (Oct. 15, 2019, 09:54 AM), <https://www.uspto.gov/trademarks-getting-started/trademark-basics/trademark-patent-or-copyright> (explaining the difference between a patent and a copyright).

¹³ Karen Millane Whitney, *Sources of Patent Prosecution History Must Not Violate Public Notice Requirement*, 32 SETON HALL L. REV. 266, 266-68, 268 n.6 (2001).

¹⁴ See Eileen M. Kane, *Patent Ineligibility: Maintaining a Scientific Public Domain*, 80 ST. JOHN’S L. REV. 519, 540 (2006) (explaining the public domain must be protected by not awarding patents to material already within the public domain).

¹⁵ Whitney, *supra* note 13, at 269–70.

¹⁶ *Id.* at 270 n.18.

¹⁷ U.S. CONST. art. I, § 8, cl. 8.

¹⁸ NARD, *supra* note 1, at 18.

¹⁹ Act of Apr. 10, 1790, ch. 7, 1 Stat. 109.

²⁰ Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

²¹ Pub. L. No. 82-593, 66 Stat. 797 (codified at 35 U.S.C. (2018)).

attorneys in previous years and reinforce the patent system after a series of Supreme Court rulings limited some aspects of patent eligibility and functional claim writing.²²

Three primary requirements of patent eligibility include novelty, non-obviousness, and subject matter.²³ For an invention to be novel, it must be distinguishable from its prior art, and must not have been available to the public before the effective filing date; simply, it must be new.²⁴ Similarly, a patentable invention must also be non-obvious—that is, readily apparent or easily conceivable to a person of ordinary skill in the relevant field.²⁵ Finally, a patentable invention must also refer to patentable subject matter.²⁶ Typically, subject matters that are not patentable include laws of nature,²⁷ natural phenomena,²⁸ and abstract ideas.²⁹ In 2011, President Barack Obama signed the AIA into law.³⁰ While it did not fundamentally alter subject matter eligibility, it significantly impacted other aspects of the U.S. patent system.³¹

IV. THE LEAHY-SMITH AMERICA INVENTS ACT (AIA)

The AIA made significant changes to how the patent system operates and ways in which entities and inventors may challenge a patent’s validity.³² One major change was the shift from a “first-to-invent” system to a “first-inventor-to-file” system.³³ Under the previous system, interference proceedings resolved conflicts concerning priority to determine who invented an invention first. The new system eliminated interference proceedings and instead put emphasis on the inventor who filed first.³⁴

The AIA also changed the scope of prior art by statutorily defining areas of information and activities that can be used to invalidate a patent, including:

²² See NARD, *supra* note 1, at 25–26 (explaining the practices that the 1952 Act codified).

²³ 35 U.S.C. §§ 101, 102, 103 (2018).

²⁴ § 102(a).

²⁵ § 103.

²⁶ § 101.

²⁷ See, e.g., *O’Reilly v. Morse*, 56 U.S. 62, 113–14 (1853) (holding as ineligible a general claim for using electric current to transmit intelligible signals (telegraphy) because of its broad focus on a law of nature (electromagnetism)).

²⁸ See, e.g., *Diamond v. Chakrabarty*, 447 U.S. 303, 310 (1980) (holding that a genetically engineered micro-organism was patentable because it did not otherwise exist in nature).

²⁹ See, e.g., *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 226-27 (2014) (rejecting a patent claim as drawn to the abstract idea of intermediated settlement because the claim merely used a generic computer implementation).

³⁰ Richard Maulsby, *Inventors Eye: America Invents Act Signed Into Law*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/custom-page/inventors-eye-america-invents-act-signed-law>.

³¹ See NARD, *supra* note 1, at 305 (noting the AIA’s changes to priority, prior art, and the concept of novelty).

³² Leahy-Smith America Invents Act, Pub L. No. 112-29, 125 Stat. 284 (2011); see *id.* (explaining that the Act changed the patent system to a first-inventor-to-file system and how it has redefined aspects of prior art and novelty); *infra* section on the Leahy-Smith Act.

³³ PRAC. L. INTELL. PROP. & TECH., LEAHY-SMITH AMERICA INVENTS ACT: OVERVIEW (2020); see NARD, *supra* note 1, at 305 (suggesting the first-inventor-to-file system is the AIA’s most significant change to the U.S. patent system).

³⁴ See PRAC. L. INTELL. PROP. & TECH., *supra* note 33 (explaining that the AIA created derivation proceedings to settle disputes about whether an inventor derived his invention from another applicant).

1. Patenting the claimed invention
2. Describing the claimed invention in a printed publication
3. Publicly using the claimed invention
4. Selling or offering to sell the claimed invention
5. Otherwise making the claimed invention available to the public³⁵

Additionally, issued patents in the United States that name another inventor and have effective filing dates before the claimed invention's PTO effective filing date qualify as prior art to invalidate patents under the AIA.³⁶ However, the AIA made statutory exceptions for prior art made one year or less before the effective filing date, or published in patent applications and patents.³⁷ Furthermore, the AIA allows third-party submissions that may be relevant to the patentability of pending applications or granted patents.³⁸ Finally, the AIA has altered some patent infringement defenses by broadening the prior use defense, eliminating the failure to disclose the best mode as a defense, and prohibiting a failure to get advice of counsel to prove willful infringement.³⁹ In addition, the creation of the Federal Circuit as the court of appeal with exclusive subject matter jurisdiction over patents has had a profound effect on the American patent system.⁴⁰

V. PATENT LAW JUDICIAL BODIES AND PROCEEDINGS

The Court of Appeals for the Federal Circuit, as mentioned, has exclusive subject matter jurisdiction over patent appeals.⁴¹ Before cases arise in the Federal Circuit, though, claimants must file in United States district courts – but claimants can only do so in U.S. district courts.⁴² In addition to hearing appeals from district courts, the Federal Circuit also hears appeals from the International Trade Commission (ITC), and from the Patent Trial and Appeals Board (PTAB).⁴³ The PTAB is part of the PTO, and has five administrative law judges on staff.

Under the AIA, the PTO has an expanded role in ensuring the validity of patent claims. The act created two new types of proceedings: the Post-Grant Review⁴⁴ (PGR) and the Inter Partes Review⁴⁵ (IPR). PGRs review the validity of a patent that has recently issued, allowing anyone to challenge a patent's validity within nine months of issuance.⁴⁶

³⁵ 35 U.S.C. § 102(a)(1) (2018).

³⁶ §§ 102, 103.

³⁷ § 102(b)(1).

³⁸ Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, § 8 (2011).

³⁹ 35 U.S.C. §§ 273(a), 298 (adding manufacturing and commercial processes as viable prior use defenses, and barring failure to get advice of counsel as evidence of willful infringement).

⁴⁰ Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982); *see* NARD, *supra* note 1, at 26–29 (discussing some of the reasons for the creation of the Federal Circuit and its impact on the American patent system, especially providing uniformity to the U.S. patenting system).

⁴¹ 28 U.S.C. § 1295(a) (2018).

⁴² § 1338 (eliminating states' concurrent jurisdiction over patent controversies).

⁴³ 28 U.S.C. § 1295(a); *see* NARD, *supra* note 1, at 42–43, (explaining that appeals to the Federal Circuit from PTAB may arise from the patent prosecution process, or from patent review proceedings such as Inter Partes and Post Grant Reviews); *see supra* notes 44–52 and accompanying text.

⁴⁴ 35 U.S.C. § 321 (2018).

⁴⁵ § 311.

⁴⁶ § 321(c).

The PTAB only grants review if it believes it is more likely than not that at least one of the challenged claims is unpatentable on grounds such as novelty, public use, or sale.⁴⁷

IPRs, on the other hand, permit challenges of a patent's validity *after* nine months from issuance or, if a party initiated a PGR proceeding, after the PGR terminates.⁴⁸ The scope of the challenge in an IPR is also narrower than a PGR: grounds for invoking IPR are limited to patents and printed publications.⁴⁹ Further, the court will not authorize an IPR unless there is a reasonable likelihood that the petitioner will prevail.⁵⁰ The decisions to institute both PGRs and IPRs are "final and not appealable,"⁵¹ but once instituted, a party may appeal an adverse result to the Federal Circuit. These new methods of review have been very popular due to their economy and efficiency for both challenging and defending parties.⁵²

VI. RECENT CASES & FURTHER READING

As technology and science have advanced, the Supreme Court has often interpreted the boundaries of the types of feats that deserve of patent protection. In *Alice Corp. v. CLS Bank International*,⁵³ the Supreme Court declared that abstract ideas, even when implemented through a computer system, are ineligible for patent protection.⁵⁴ However, when *Enfish LLC v. Microsoft Corp.*⁵⁵ reached U.S. Court of Appeals for the Federal Circuit, it was able to add clarification to this ruling, which has had powerful implications for the patentability of computer software.⁵⁶ The Federal Circuit explained that the claims in Enfish's patent were not directed towards an abstract idea that was merely implemented through a computer, but were actually "directed to a specific improvement to the way computers operate, embodied in the self-referential table."⁵⁷

The Federal Circuit also recently decided that part of the AIA was unconstitutional under the Appointments Clause. In *Arthrex, Inc. v. Smith & Nephew, Inc.*,⁵⁸ the court determined that administrative panel judges (APJs) on the PTAB are principal officers; however, because the President does not appoint APJs, their appointments were in violation of the Appointments Clause. The Federal Circuit remedied the constitutional violation by severing a portion of the AIA that restricted removal of APJs, thus rendering APJs inferior officers.⁵⁹

⁴⁷ § 324(a).

⁴⁸ § 311(c).

⁴⁹ § 311(b).

⁵⁰ § 314(a).

⁵¹ §§ 324(e), 314(d).

⁵² CRAIG ALLEN NARD, *THE LAW OF PATENTS* 45 (5th ed. 2020).

⁵³ 573 U.S. 208 (2014).

⁵⁴ *Id.* at 212.

⁵⁵ 822 F.3d 1327 (Fed. Cir. 2016).

⁵⁶ See Joseph Allen Craig, *Deconstructing Wonderland: Making Sense of Patents in a Post-Alice World*, 32 BERK. TECH. L.J. 359, 368-69 (2017) (suggesting that the ruling clarified the first part of the *Alice* test and provided an example of how computer or technological process improvements might not be considered abstract ideas).

⁵⁷ *Enfish*, 822 F.3d at 1336.

⁵⁸ 941 F.3d 1320 (Fed. Cir. 2019).

⁵⁹ *Id.* at 1335-38.

Another important issue arising out of the AIA is the tension which results from competing decisions between the federal judicial system and the PTAB. The AIA created various paths to challenge patents at the PTO, but often parties will also initiate proceedings in federal court. As a result, PTAB rulings and federal courts that may be in opposition to one another.⁶⁰ For additional reading, visit patentlyo.com, ipwatchdog.com, and patentdocs.org.

⁶⁰ Dennis Crouch, *Racing Tribunals: The Judge, The Jury, and the PTAB*, PATENTLYO (Sept. 8, 2020), <https://patentlyo.com/patent/2020/09/racing-tribunals-judge.html>.