

Patent Requirements & Prior Art Searches: What Makes an Invention Patentable and What Are the Methods of Determining Novelty



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Patent Examination

- Patent Examiner reviews contents of the application for compliance with all U.S. legal requirements.
- **Burden is on the examiner: An applicant is entitled to a patent unless...**



Patent Examination

... The laws of the U.S. prevent a patent from being issued. The patent laws are set forth in title 35 of the United States Code.

–This is abbreviated 35 USC _



Major Statutory Areas of Patentability Consideration

- **35 U.S.C. § 101: Utility**
- **35 U.S.C. § 112, first paragraph: Enablement and written description**
- **35 U.S.C. § 112, second paragraph: Definiteness**
- **35 U.S.C. § 102: Anticipation**
- **35 U.S.C. § 103: Obviousness**



35 USC § 101

- Whoever invents or discovers any new and **useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof**, may obtain a patent therefore, subject to the conditions and requirements of this title.



Utility Guidelines

- **Specific utility**
 - Specific to the claimed invention
- **Substantial utility**
 - Utility that has real-world value
- **Credible utility**
 - Is specific utility credible?



Utility Guidelines

- Well established utility
 - **A specific utility which is well known**
- If asserted in the specification or immediately apparent to the artisan, and is credible, then it would be acceptable.



35 USC § 112 – Enablement

The specification shall...**enable any person skilled in the art** to which it [the invention] pertains, or with which it is most nearly connected, to **make and use the same**...



35 USC § 112, First Paragraph Written Description

The specification shall contain a **written description of the invention, and the manner and process of making and using it**, in such full, clear, concise and exact terms as to enable...



Written Description Requirement Objectives

- Inventorship - To clearly convey that an applicant has invented the subject matter which is claimed.
- Possession - To put the public in possession of what the applicant claims as the invention.
- New Matter - To prevent applicant from claiming subject matter not fully described in the specification.



General Principles

- Basic inquiry: Can one skilled in the art reasonably conclude that the inventor had possession (constructive or actual) of the claimed invention at the time the application was filed?
- Written description requirement is a separate and distinct from the enablement requirement.



Effect of Prior Art

A prior disclosure of the claimed invention is said to anticipate the invention and may preclude patentability.



35 USC 102 and 103

- 35 USC § 101 and 112 addressed patentability considerations related to the disclosure- whether the disclosed invention was useful, and in a way that one of ordinary skill in the art could make and use the invention.
- 35 USC 102 and 103 relate to what earlier events (e.g., prior art) preclude the issuance of a patent.



Types of Prior Art in the U.S.

- **Publications and Patents published before the filing date**
 - If the patent or publication is to another and published within a year of the filing date in the U.S., then the applicant can overcome the reference by establishing an earlier date of invention.
- **U.S. Patent Application Publications and Patents with filing dates before the filing date in the U.S.**
- **Prior sales or public use in the United States**
- **Does NOT include oral disclosures outside the U.S.**



Statutory Basis: 35 U.S.C. § 102(a)

A person shall be entitled to a patent unless -

(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

–NOTES: the applicable date is the date of invention - The U.S. is a “first-to-invent” system. Relative vs. Absolute Novelty

– *continued* –



Statutory Basis: 35 U.S.C. § 102 (a)

- Under U.S. law, applicants can ante-date certain prior art references by filing an affidavit showing invention of the claimed subject matter before the effective date of the reference.
- The affidavit must be timely presented and set forth factual evidence of earlier invention.



Statutory Basis: 35 U.S.C. § 102 (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 the application for patent in the United States, or

Note: basis for 1 year grace period in U.S.

– continued –



Statutory Basis: 35 U.S.C. § 102 (c)

- A person is entitled to a patent unless –
– (c) he has abandoned the invention
- In practice, an invention is virtually never “abandoned” under this section.
- If an applicant fails to file the patent application within one year of publication, he is said to have “abandoned” his invention; he is really barred by 102(b) for failure to file within the one year grace period.
- Encourages prompt filing and disclosure of new technology.



Statutory Basis: 35 U.S.C. § 102 (d)

- A person shall be entitled to a patent unless –
 - (d) the invention was first patented ... in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States



Statutory Basis: 35 U.S.C. § 102(e)

(e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent

Note: this is so-called “secret prior art”.

- also includes PCT applications designating the U.S. and published in English



Statutory Basis: 35 U.S.C. § 102(f)

- A person shall be entitled to a patent unless –
 - (f) he did not himself invent the subject matter sought to be patented
- This is meant to deal with derivation, where the applicant has derived the invention from someone else



Statutory Basis: 35 U.S.C. § 102 (g)

- (g) during the course of an interference conducted under section 135 or 291, another inventor involved therein establishes...that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed or concealed.
- In determining priority of invention...there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.



Statutory Basis: 35 U.S.C. § 102 (g)

- Basis for U.S. first-to-invent system
- Pertains to priority contests – two inventors claiming the same subject matter – who gets the patent?
- 3 factors:
 - Conception
 - Reduction to practice
 - diligence



Obviousness: 35 U.S.C. § 103

Non-Obvious Subject Matter

- A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that *the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art* to which said subject matter pertains.



Obviousness

- In order to achieve the fundamental purpose of the patent system – to promote progress – an invention must be more than merely novel
- It must be sufficiently different from what was known before
- This concept of “sufficient difference” is called non-obviousness or inventive step



Obviousness

A rejection of “Obviousness” may be based upon either:

- Single reference; or
- Combination of references



Obviousness Analysis -

- Supreme Court test for applying Section 103 (Graham v. Deere, 383 US 1, 1966)
 - Determine scope of claimed invention
 - Determine scope and content of prior art
 - Determine if there are differences
 - Determine if the differences would have been obvious
 - Consider any secondary evidence of patentability (e.g., long felt need solved; commercial success)



“Prima facie” Case

- Burden-shifting mechanism – the examiner bears the initial burden of demonstrating unpatentability
- Applicant may rebut by persuasively showing error in the examiner’s decision
- Examiner reevaluates, considering totality of the record



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