

35 USC § 101: Statutory Requirements and Four Categories of Invention

August 2015

Office of Patent Legal Administration
United States Patent and Trademark Office

UNITED STATES
PATENT AND TRADEMARK OFFICE



OVERVIEW

TRAINING OVERVIEW:

- The Requirements of 35 U.S.C. § 101
- The Four Statutory Categories (Step 1 of Subject Matter Eligibility Analysis)
- Nonstatutory claim examples

35 U.S.C. § 101

Four Requirements Under 35 U.S.C. § 101

35 U.S.C. § 101

§ 101 - Inventions Patentable:

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 therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101: Requirements

Four Requirements in § 101 :

- “A” patent – means only one patent granted for each invention.
 - Basis for statutory double patenting rejections. See MPEP 804.
- “Useful” – the invention must have a specific, substantial, and credible utility.
 - “Utility” requirement – see MPEP 2107 for Utility Guidelines.
- “Process, Machine, Manufacture, Composition of Matter”
 - “Subject matter eligibility” - these categories, as interpreted by the courts, limit the subject matter that is eligible for patenting.
- “Whoever invents or discovers”
 - A patent may only be obtained by the person who engages in the act of inventing.

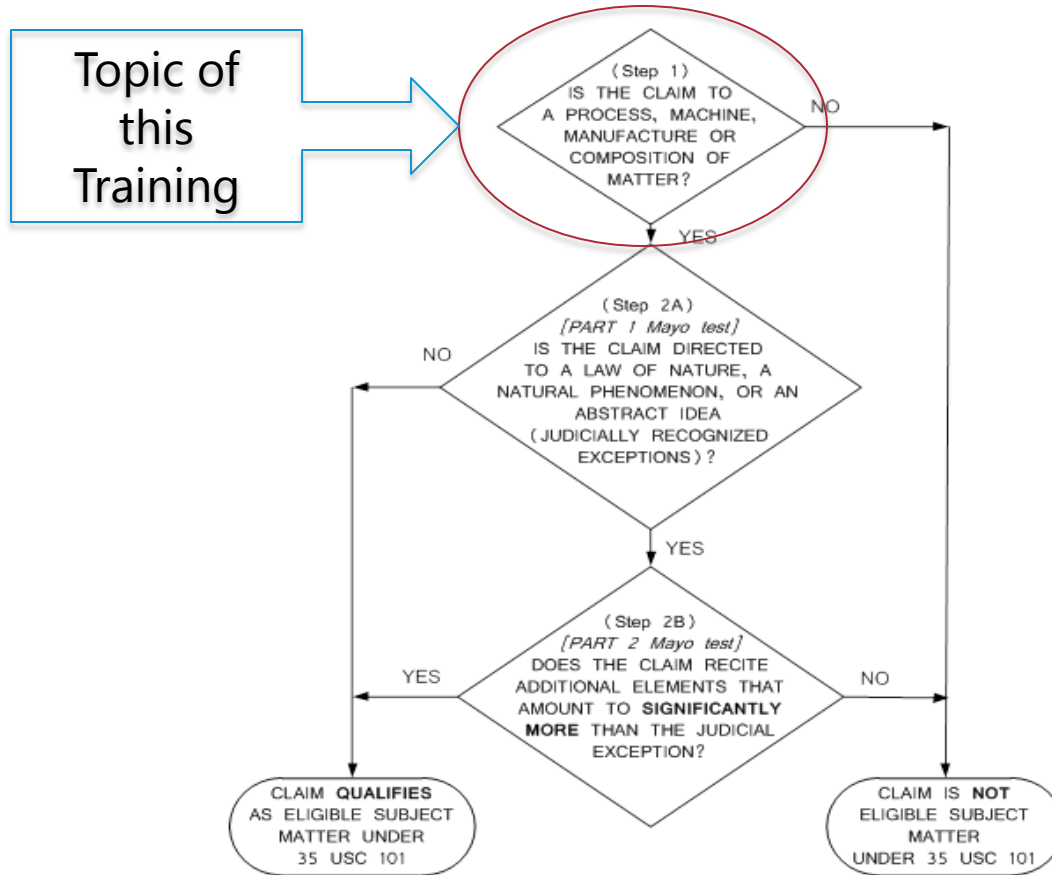
35 U.S.C. §101: Subject Matter Eligibility

Subject Matter Eligibility-
Statutory Categories of Invention

35 U.S.C. §101: Subject Matter Eligibility

- The four statutory categories of invention:
 - Process, Machine, Manufacture, or Composition of Matter and Improvements Thereof
- The courts have interpreted the statutory categories to *exclude*:
 - “Laws of nature, natural phenomena, and abstract ideas”
 - These three terms are typically used by the courts to cover the basic tools of scientific and technological work, such as scientific principles, naturally occurring phenomena, mental processes, and mathematical algorithms.
 - Called “Judicial Exceptions”
 - At times, other terms are used to describe the judicial exceptions.

§101 Subject Matter Eligibility Test for Products and Processes



35 USC §101: 2014 Interim Eligibility Guidance

- 2014 Interim Eligibility Guidance (Issued Dec. 16, 2014, 79 FR 74618) :
 - For examination of all claims
 - Use the broadest reasonable interpretation (BRI) of the claim
 - Analyze the claim as a whole
 - Practice compact prosecution by fully examining under 35 U.S.C. §§ 102, 103, 112 and 101 (utility, inventorship, and double patenting) and non-statutory double patenting
 - Comprehensive view of subject matter eligibility under 35 U.S.C. § 101 that incorporates teachings from the full body of relevant case law
 - Reflects recent Supreme Court developments, particularly:
 - Alice Corp.: *Alice Corp. Pty. Ltd. v. CLS Bank Int'l* (2014)
 - Myriad: *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.* (2013)
 - Mayo: *Mayo Collaborative Services v. Prometheus Labs. Inc.* (2012)
 - Bilski: *Bilski v. Kappos* (2010)
- If a claim falls within at least one of the four statutory categories, proceed to the judicial exception analysis.

35 USC §101: The Four Categories of Statutory Subject Matter

- Process
 - “an act, or series of acts or steps”
- Machine
 - “a concrete thing, consisting of parts, or of certain devices and combination of devices”
- Manufacture
 - “an article produced from raw or prepared materials by giving these materials new forms, qualities, properties, or combinations, whether by handlabor or by machinery”
- Composition of Matter
 - “all compositions of two or more substances and all composite articles, whether they be the results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids, for example

35 USC §101: Statutory Categories - Step 1

- Claimed inventions that do not fall within the statutory categories are not eligible for patenting.
 - Identification of one particular category is not necessary for eligibility.
 - A claim may satisfy the requirements of more than one category.
 - Ex., a claim to a bicycle may satisfy both machine and manufacture categories.
 - Analyze based on the claim's broadest reasonable interpretation (BRI).
 - A claim that covers **both** eligible and ineligible subject matter should be rejected under §101 because the BRI covers ineligible subject matter.
- Claimed inventions that fall within the statutory categories must still avoid the judicial exceptions to be eligible.
 - For example, a process claim that meets the definition under 35 U.S.C. § 100 (a series of steps) would be ineligible if the claim is directed to an abstract idea and does not recite additional elements, either alone or in combination, that amount to significantly more than the abstract idea.

Statutory Categories – Nonstatutory Example

- Example 1:

A **paradigm** for marketing software, comprising:

a marketing company that markets software from a plurality of different independent and autonomous software companies, and carries out and pays for operations associated with marketing of software for all of said different independent and autonomous software companies, in return for a contingent share of a total income stream from marketing of the software from all of said software companies, while allowing all of said software companies to retain their autonomy. (*In re Ferguson; claim 24*)

- “Paradigm” is a business model for an intangible marketing company, not a:
 - Process: series of steps; 35 U.S.C. § 100
 - Machine: a concrete thing consisting of parts or devices
 - Manufacture: an article produced from raw or prepared materials
 - Composition of matter: a composition of substances or composite article

Statutory Categories – Nonstatutory Example

- Example 2:

A **device profile** for describing properties of a device in a digital image reproduction system to capture, transform or render an image, said device profile comprising:

 first data for describing a device dependent transformation of color information content of the image to a device independent color space; and
 second data for describing a device dependent transformation of spatial information content of the image in said device independent color space.

(Digitech Image Technologies; claim 1)

- The “device profile” is an intangible collection of information *per se*, not a:
 - Process: series of steps; 35 U.S.C. § 100
 - Machine: a concrete thing consisting of parts or devices
 - Manufacture: an article produced from raw or prepared materials
 - Composition of matter: a composition of substances or composite article

Statutory Categories – Signals *per se*

- Another example of a claim that does not fit in the categories:
A signal with embedded supplemental data, the signal being encoded in accordance with a given encoding process and selected samples of the signal representing the supplemental data, and at least one of the samples preceding the selected samples is different from the sample corresponding to the given encoding process. (*In re Nuijten; claim 14*)
- A transitory, propagating signal like the claim above is not within one of the four statutory categories.
 - The transient electric or electromagnetic transmission is man-made and physical – it exists in the real world and has tangible causes and effects – but was found not to qualify as a manufacture, or any of the other statutory categories.

Signals *per se*

- Computer readable media (CRM), under the broadest reasonable interpretation (BRI), will cover an ineligible signal *per se* unless defined otherwise in the application as filed.
 - When the specification is silent, the BRI of a CRM and a computer readable storage media (CRSM) in view of the state of the art covers a signal *per se*. Thus, in this case, a claim to a CRM or CRSM is ineligible unless amended to avoid the ineligible signal embodiment.
 - Some applications, as filed, provide a special definition that explicitly draws a distinction between computer readable storage media, defining it as hardware discs, and computer readable transmission media, defining it as signals *per se*. Thus, in this case, a claim limited to storage media could rely on the special definition and would be eligible.

Signals *per se*

- When the specification is silent (no special definition of a CRM provided in original disclosure):
 - It is acceptable to amend the claims to exclude the signal embodiment by adding “non-transitory” to modify the computer readable media.
 - See “Subject Matter Eligibility of Computer Readable Media” (Jan. ‘10)
- “Non-transitory” is not a requirement, but simply one option.
 - Applicant can choose other ways to amend the claim in accordance with the original disclosure.
 - Not acceptable to just add “physical” or “tangible” - *Nuijten’s* ineligible signals were physical and tangible.
 - Not acceptable to add “storage” absent support in original disclosure because the broadest reasonable interpretation of computer readable storage media based on common usage covers signals/carrier waves.

Statutory Categories – Living Subject Matter and Human Organisms

- Nonnaturally occurring non-human multicellular living organisms, including animals, may be eligible.
 - MPEP 2105
 - 2014 Interim Eligibility Guidance
- Claims directed to or encompassing a human organism are ineligible (and always have been).
 - Section 33(a) of the America Invents Act 2011
 - 35 U.S.C. 101
 - See also *Animals – Patentability*, 1077 Off. Gaz. Pat. Office 24 (April 21, 1987)

35 USC §101: Statutory Categories

Failure to Claim Within
A Statutory Category

35 USC §101: Statutory Categories Rejection

- If a claim, under the broadest reasonable interpretation, covers an invention that does not fall within the four statutory categories, a rejection under 35 U.S.C. §101 must be made.
- Use Form ¶¶ 7.04.01, 7.05, 7.05.01.
 - Form ¶ **7.04.01** recites:
 - *"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 therefor, subject to the conditions and requirements of this title."*
 - Form ¶ **7.05** recites:
 - *"Claim*** rejected under 35 U.S.C. 101 because ..."*
 - Form ¶ **7.05.01**
 - *"the claimed invention is directed to non-statutory subject matter because ***."*

35 USC §101: Other Rejections

For Human Organisms use Form ¶ 7.04.03

- Form ¶ **7.04.03** recites in part:

- *“...Notwithstanding any other provision of law, no patent may issue on a claim directed to or encompassing a human organism.*

*Claim*** rejected under 35 U.S.C. 101 and section 33(a) of the America Invents Act as being directed to or encompassing a human organism. See also Animals - Patentability, 1077 Off. Gaz. Pat. Office 24 (April 21, 1987) (indicating that human organisms are excluded from the scope of patentable subject matter under 35 U.S.C. 101).”*

For Incorrect Inventorship use Form ¶ 7.04.101.aia or 7.04.102.aia

- Form ¶ **7.04.101.aia** recites in part:

- *“...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 therefor, subject to the conditions and requirements of this title.*

35 U.S.C. 115(a) reads as follows (in part):

An application for patent that is filed under section 111(a) or commences the national stage under section 371 shall include, or be amended to include, the name of the inventor for any invention claimed in the application.

*The present application sets forth the incorrect inventorship because ***.”*

- Form ¶ **7.04.102.aia** recites:

- *“35 U.S.C. 115(a) reads as follows (in part):*

An application for patent that is filed under section 111(a) or commences the national stage under section 371 shall include, or be amended to include, the name of the inventor for any invention claimed in the application.

*The present application sets forth the incorrect inventorship because ***.*

35 USC §101: Clarity of the Record

- Clarifying the record:
 - Benefits the Examiner, the Applicant, and the Public
 - Places the Applicant on notice with regard to the Office's position enabling a more effective Applicant response
 - Provides insight to the broadest reasonable interpretation for the claim limitations
- Examples of how to clarify the record:
 - Explaining why the claim does not fit within one of the four categories
 - See MPEP 2106(I) for definitions of the categories
 - Illustrating why the broadest reasonable interpretation of the claim encompasses a non-statutory embodiment, i.e., a signal *per se*
 - Explaining why the claim is interpreted to read on a human organism
 - When the category is unclear, adding comments explaining the BRI

35 U.S.C. § 101

- Additional case citations:
 - *In re Ferguson*, 558 F.3d 1359, 90 U.S.P.Q.2d 1035 (Fed. Cir. 2009)
 - *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc., et al.*, 758 F. 3d 1344, 111 U.S.P.Q.2d 1717 (Fed. Cir. 2014)
 - *In re Nuijten*, 500 F.3d 1346, 84 U.S.P.Q.2d 1495 (Fed. Cir. 2007)
- Questions? Please contact your SPE or TQAS.

