Knobbe Martens

Knobbe Practice Webinar Series: Strategic Considerations Under Section 112 - Definiteness, Written Description and Means Plus Function

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Overview

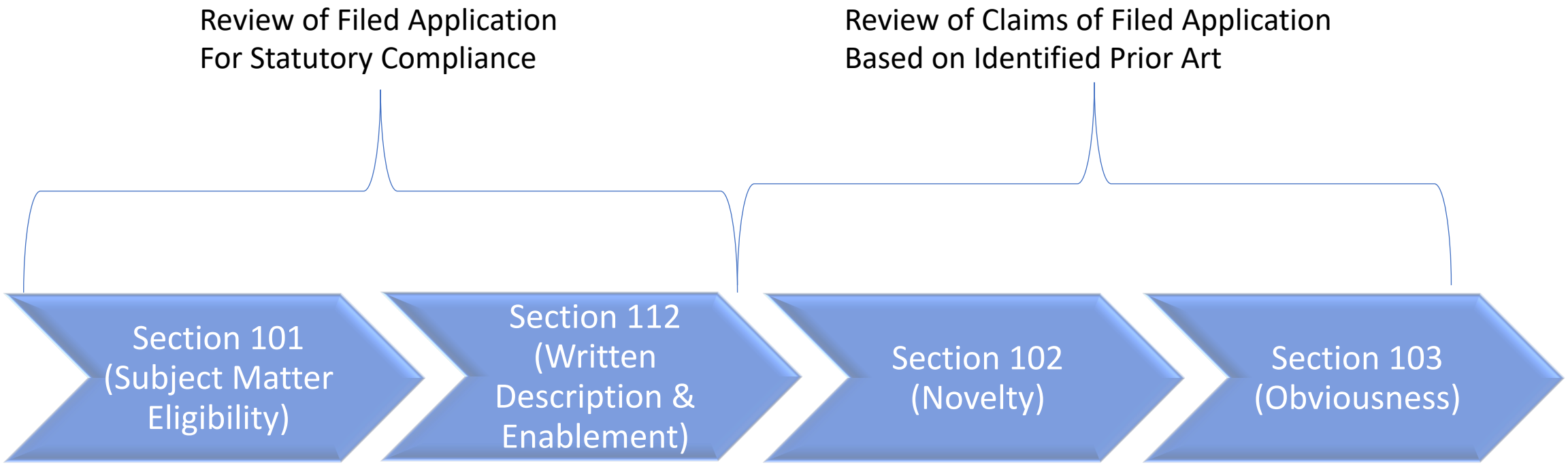
1 Section 112 (a) – Written Description and Enablement

2 Section 112 (b) - Definiteness

3 Section 112 (f) – Means Plus Function

Statutory Requirements

Statutory Requirements – Patentability of Inventions



Statutory Requirements – Patentability of Inventions

35 U.S. Code §112

(a)In General.—The specification shall contain a **written description** of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to **enable any person skilled in the art** to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

(b) Conclusion.—The specification shall conclude with one or more claims particularly pointing out and **distinctly claiming** the subject matter which the inventor or a joint inventor regards as the invention.

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Statutory Requirements – Patentability of Inventions

35 U.S. Code §112

(e) Reference in Multiple Dependent Form.—A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

(f) Element in Claim for a Combination.—An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Section 112(a)

Written Description – Section 112(a)

- The specification must describe the claimed invention in sufficient detail such that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention at the time of filing.
  - The specification must provide a sufficient description of an invention, not an indication of a result that one might achieve.
- The level of detail required varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology. See MPEP § 2163(II)(A)(2).
  - Information that is well known in the art need not be described in detail in the specification.
  - However, sufficient information must be provided to show that the inventor had possession of the invention as claimed.
- Best Mode?
  - Technically still a requirement under the statute
  - Cannot be utilized to invalidate a patent post-2011
  - Can still be utilized to reject a patent application by the PTO – practically not like

Written Description – Section 112(a)

- Written Description vs. Enablement: Purpose is to prove that the inventor actually possessed the invention (written description) not that one skilled in the art could derive the invention (enablement)
- Typically arises in context of amendment
  - Original claim usually shows inventors were in possession of claimed invention
  - Original claim in continuation application must have written description support in parent to retain benefit of parent filing date
  - Unpredictable arts, e.g. chemistry and biotech
    - Original claim does not necessarily show possession of invention
    - Genus claim requires disclosure of sufficient number of species
- Practice Tips:
  - Ranges of values
  - Omitted element(s)
  - Combination of embodiments
  - Genus/species
  - Antibodies/antigens
  - Negative limitations

Enablement – Section 112(a)

The specification must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation.

Person of Ordinary Skill in the Art

- The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. See MPEP § 2141.03
- Factors that may be considered in determining the level of ordinary skill in the art may include:
  - (A) "type of problems encountered in the art;"
  - (B) "prior art solutions to those problems;"
  - (C) "rapidity with which innovations are made;"
  - (D) "sophistication of the technology; and"
  - (E) "educational level of active workers in the field.

Factors Undue Experimentation

(1) The quantity of experimentation necessary;

(2) The amount of direction or guidance presented;

(3) The presence or absence of working examples;

(4) The nature of the invention;

(5) The state of the prior art;

(6) The relative skill of those in the art;

(7) The predictability or unpredictability of the art;

(8) The breadth of the claims

Scope of Enablement

- With respect to the breadth of a claim, the relevant concern is whether the scope of enablement provided to one skilled in the art by the disclosure is commensurate with the scope of protection sought by the claims.
  - Consider how broad the claim is with respect to the disclosure, and
  - Whether one skilled in the art could make and use the entire scope of the claimed invention without undue experimentation.

- Determine exactly what each claim recites and what subject matter is encompassed by the claim when the claim is considered as a whole, not when its parts are analyzed individually.

- A rejection for lack of enablement must be made when the specification does not enable the full scope of the claim.

Scope of Enablement

- Not everything necessary to practice the invention need be disclosed.
  - A specification need not disclose what is well known in the art.
  - However, applicant cannot rely on the knowledge of one skilled in the art to supply information that is required to enable the novel aspect of the claimed invention when the enabling knowledge is in fact not known in the art.

- Practice Note: Computer-implemented inventions may have higher level of skill in the art and the similarly high level of predictability in generating programs to achieve an intended result without undue experimentation.

Practice Tips – Responding and Avoiding to Section 112(a) Rejections

- Office Action may identify “easy” corrections

- Engage with the Examiner
  - Sometimes can be addressed by minor claim amendments – minor wording changes or additional language
  - Be prepared with clear citation to passages from the specification
  - Consider the possible use of inventor/expert declarations to establish level of skill in the art or undue experimentation

- Specification Drafting Best Practices
  - Each independent claim should have at least one drawing that forms the basis of support for written description and enablement
  - Every claim term and phrasing should be found in the specification at least once
  - Functional claiming should be described not just in the intended outcome but how the function is carried out or performed
  - Include description of dependencies for process steps to be able to claim such dependencies in the claims (Section 103)

Section 112(b)

Section 112 (b) - Definiteness

- Purpose: whether the claim meets the threshold requirements of clarity and precision set forth in the statute, not whether more suitable language or modes of expression are available. See MPEP 2173

- Definiteness of claim language must be analyzed, not in a vacuum, but in light of:
  - The content of the particular application disclosure;
  - The teachings of the prior art; and
  - The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

Practice Tips – Responding to Section 112(b) Rejections

- Common Section 112(b) rejections
  - Lack of antecedent basis
    - Simple example – claim reciting “the connector” without first reciting “a connector”
    - Ambiguity – claim recites “a first connector” and “a second connector” but having a subsequent claim term of “the connector”
  - Unclear claim language
    - Meaning of claim term cannot be reasonably ascertained by a skilled artisan by reference to the specification (e.g., no support)
    - “Relative terminology”: Fails to provide some standard for measuring that degree (e.g., “relatively large”), terms of magnitude or approximation (e.g., “about,” “similar,” “type”) and subjective terms (e.g., “aesthetically pleasing”).
    - “Exemplary terminology”: “Such as” and “for example” in the claims

- Office Action may identify “easy” corrections

- Engage with the Examiner
  - Often addressed by minor claim amendments – antecedent basis
  - Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement.

Section 112 (f)

Invoking Interpretation Under Section 112(f)

- Patent applications are not rejected under Section 112(f)
- Section 112(f) – Means Plus Function Interpretation:
  - An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.
- Invoking interpretation under Section 112(f) (See MPEP § 2181(I)):
  - The claim limitation uses the term “means” or a term used as a substitute for “means” that is a generic placeholder; AND
  - The term “means” or the generic placeholder is modified by functional language, typically, but not always linked by the transition word “for” (e.g., “means for”) or another linking word or phrase, such as “configured to” or “so that.”; AND
  - The term “means” or the generic placeholder is not modified by sufficient structure, material, or acts for performing the claimed function.
- Common substitute terms: “mechanism for,” “module for,” “device for,” “unit for,” “component for,” “element for,” “member for,” “apparatus for,” “machine for,” or “system for.”
- There is no fixed list of terms that avoid invocation of Section 112(f)

Practice Tips – Avoiding and Responding to Section 112(f) Rejections

- A determination that a claim limitation is being interpreted under § 112(f) should be expressly stated in the Office Action.
  - No response necessary if intended (e.g., reciting “means for ….”) or otherwise acceptable
  - To rebut:
    - Present arguments/remarks identifying how the claim limitation recites sufficient structure to perform the claimed function; OR
    - Amend the claim limitation to add structure or recast the claim

- Specification Drafting Best Practices
  - Each independent claim should have at least one drawing that forms the basis of support for written description and enablement
  - The specification should be the “key” for all broad terms that can be implemented in multiple ways/embodiments
  - If means plus function is intended to be invoked, be sure to identify alternatives
  - Eliminate “easy” invocation of means plus function by avoiding “nonce” words

Special Case: Computer-implemented inventions 112(f) and 112(b)

- A computer-implemented Section 112(f) claim limitation will be indefinite under Section 112(b) when the specification:
  - Fails to disclose any algorithm to perform the claimed function.
  - Discloses an algorithm but the algorithm is not sufficient to perform the entire claimed function(s).
- The sufficiency of the algorithm is determined in view of what one of ordinary skill in the art would understand as sufficient to define the structure and make the boundaries of the claim understandable.
  - Disclosure of an algorithm cannot be avoided by arguing that one of ordinary skill in the art is capable of writing software to perform the claimed function. See MPEP § 2161.01(I).

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