

Schwegman Lundberg & Woessner | slwip.com



Destination IP Virtual Summit

Drafting Your Patent Specification to Avoid Common Problems with 35 USC 112

Before We Get Started...



Recording

A link to the recording and slides will be emailed to all registrants.



Questions

Type in the question box and we will answer in real time or during the Q&A.



Social

Follow us on LinkedIn or go to SLW Institute on slwip.com to see upcoming and on demand webinars.

Attorney

Theresa Stadheim

Theresa Stadheim is a registered patent attorney at Schwegman Lundberg & Woessner. Theresa's practice involves writing and prosecuting patent applications in the areas of wireless technologies, military and government technology, cryptographic and secure systems, computer architecture and programming, memory devices, and oil and gas industry technologies. She is a 2010 graduate the University of Minnesota Law School and received her Bachelor's Degree in electrical engineering from Norwich University. Prior to becoming an attorney, Theresa worked as a designer of electrical, software and firmware systems for leading companies in the automotive industry and in the printing industry. Theresa is a Microsoft Certified Solutions Developer with certification in C++, C#, SQL Server, and System Architecture. She was also awarded the AIPLA Women in IP Law Woman to Watch Award in January of 2017.





Topics Covered

112(a) – Written Description and Enablement

- 112(a) statute and MPEP sections
- Recent case law
- Practice tips

112(b) – Indefiniteness

- 112(b) statute and MPEP sections
- Recent case law
- Practice tips

112(f) – Functional Claiming

- 112(f) statute and MPEP section
- Recent Case law
- Practice tips



Written Description and Enablement





Written description and enablement

35 USC 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.

Written description and enablement

Written description and enablement:

Interplay and confusion



Written description and enablement

Written description and enablement

Interplay and confusion:
The first is notice, the second instructs.





Written description and enablement

- MPEP 2161: THE SPECIFICATION MUST INCLUDE A WRITTEN DESCRIPTION OF THE INVENTION, ENABLEMENT, AND BEST MODE OF CARRYING OUT THE CLAIMED INVENTION

Written description and enablement



Written description and enablement

MPEP 2161 Three Separate Requirements for Specification Under 35 U.S.C. 112(a)

1. Written description
2. Enablement
3. Best mode





Written description and enablement

MPEP section 2163 –Written description

- Description must be sufficient to show possession of the invention
- Examination Guidelines for 112(a) – Written description
- Examiners are to read the spec, interpret each claim separately using BRI, and make sure there is support for each claim
- No need to define well-known terms
- Broad claims need broad written description; narrow claims only need narrow



Written description and enablement

MPEP section 2164 –Enablement

- Test: undue experimentation (Wands factors)
- Predictable vs. unpredictable arts
- No need to disclose what is known by one of ordinary skill
- Computer and electrical – Examiner is to look at blocks to see if description of each is enabling
- Affidavit practice
- Claim scope taken into account
- If a claim is broader than the disclosure, this is an enablement rejection and not indefiniteness
- Critical features must be claimed



Written description and enablement: Recent case law

- Written Description: is particularly important when claims are added later
Quake v. Lo, 928 F.3d 1365 (Fed. Cir. 2019)
- Written Description: Proof may be needed of statements that might be doubted
Nuvo Pharmaceuticals (Ireland) Designated Activity Company v. Dr. Reddy's Laboratories Inc.

Written description and enablement: Recent case law

- Written Description: The level of detail required of the written description varies
Centrak, Inc. v. Sonitor Technologies, Inc.
- Written Description: There is a limit to what knowledge of PHOSITA can provide.
D Three Enterprises, LLC v. SunModo Corporation
- Written Description: Written Description Must be Commensurate with Claims
Idenix Pharmaceuticals LLC v. Gilead Sciences Inc.



Written description and enablement: Recent case law

- **Written Description:** Must contain more than the parts; it must put them together

FWP IP ApS v. Biogen MA, Inc.

Written description and enablement: Recent case law

- **Enablement:** gapfilling is okay, but doesn't substitute for basic enablement
- *Trustees of Boston University v. Everlight Electronics Co., Ltd.*
 - Claim at issue: A semiconductor device comprising:
 - a substrate, said substrate consisting of a material selected from the group consisting of (100) silicon, (111) silicon, (0001) sapphire, (11-20) sapphire, (1-102) sapphire, (111) gallium arsenide, (100) gallium arsenide, magnesium oxide, zinc oxide and silicon carbide;
 - a non-single crystalline buffer layer, comprising a first material grown on said substrate, the first material consisting essentially of gallium nitride; and
 - a growth layer grown on the buffer layer, the growth layer comprising gallium nitride and a first dopant material



Written description and enablement: Recent case law

Research on PTAB decisions over the last year:

Written Description – 712 decisions

- Examiner affirmed: 344 cases
- Examiner reversed: 324 cases
- In 22 cases, written description was newly applied at the appeal stage
- The rest are unknown

Enablement– 137 decisions:

- Examiner affirmed: 61 cases
- Examiner reversed: 68 cases
- In 3 cases, written description was newly applied at the appeal stage
- The rest are unknown



Written description and enablement: Practice tips

- Watch for conflation of enablement and written description in rejections
- Don't omit essential features from claims – better yet don't say anything is essential if you can avoid it
- Show support for amendments – make it a practice to look for support and provide it, if you don't have it this will save you time and embarrassment
- Link claim language to specification – tools
- Describing standard terms



Written description and enablement: Practice tips

- Enablement – what is the critical limitation?
- Enablement – for method flowcharts, disclose an element or circuit to perform each operation
- Enablement – consider providing computer code or pseudocode, but watch for trade secret issues



Indefiniteness





Indefiniteness

35 USC 112(b)

- 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.



Indefiniteness

MPEP 2171: TWO SEPARATE REQUIREMENTS FOR CLAIMS UNDER 35 USC 112(B)

- subjective requirement
- objective requirement



Indefiniteness

MPEP 2173: CLAIMS MUST PARTICULARLY POINT OUT AND DISTINCTLY CLAIM THE INVENTION

- Applicants are their own lexicographers
- Broadest reasonable interpretation
- Tie into functional claiming
- Clarity and precision



Indefiniteness: Recent case law

- “effective for catalyzing” or “effective to catalyze”
 - *BASF Corporation v. Johnson Matthey Inc.*, 875 F.3d 1360 (Fed. Cir. 2017)
- “virtually free from interference”
 - *One-E-Way, Inc. v. International Trade Commission*, 859 F.3d 1059 (Fed. Cir. 2017)
- “lofty batting”
 - *Guangdong Alison Hi-Tech Co. v. International Trade Commission*, 936 F.3d 1353 (Fed. Cir. 2019)



Indefiniteness: Recent case law

- “substantially natural appearing conformation”
 - *3form, Inc. v. Lumicor, Inc.* 678 Fed.Appx. 1002 (Fed. Cir. 2018)
- “substantially filled”
 - *Tinnus Enterprises, LLC v. Telebrands Corporation*, 733 Fed.Appx. 1011 (Fed. Cir. 2018)
- “elongated and substantially straight”
 - *Exmark Manufacturing Company Inc. v. Briggs & Stratton Power Products Group, LLC*, 879 F.3d 1332 (Fed. Cir. 2018)

Indefiniteness: Recent case law

- “ascertains an apparent signature”
 - *Capital Security Systems, Inc. v. NCR Corporation*
- “Peaks”
 - *Endo Pharmaceuticals Inc. v. Teva Pharmaceuticals USA, Inc.*
- “paresthesia-free,” “configured to,” and “means for generating”
 - *Nevro v. Boston Scientific*
- Mixed apparatus and method language
 - *MasterMine Software, Inc. v. Microsoft Corporation, 874 F.3d 1307*



Indefiniteness: Recent case law

- “cheque standby unit”
 - *Diebold Nixdorf, Inc. v. International Trade Commission*, 899 F.3d 1291, 128 U.S.P.Q.2d 191 (Fed. Cir. 2018)
- “QoS requirements”
 - *Intellectual Ventures I LLC v. T-Mobile USA, Inc.*, 902 F.3d 1372, 127 U.S.P.Q.2d 1697 (Fed. Cir. 2018)
- “in response to the software key logging”
 - *Trusted Knight Corporation v. International Business Machines Corporation*, 681 Fed.Appx. 898 (Fed. Cir. 2017)



Indefiniteness practice tips

- Disclosure should show how a computer would perform each function claimed (for computer-implemented claims)
- Detailed flow chart, even in non-software specifications
- Antecedent basis – balance between formulaic Examiner and clarity
- Claim language inconsistencies
- Provide some sort of scale or gradation for numbers and ranges



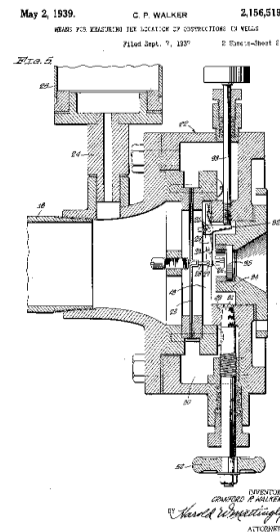
112(f) – Functional Claiming



Functional claiming

“Had Walker accurately described the machine he claims to have invented, he would have had no such broad rights to bar the use of all devices now or hereafter known which could accent waves. Certainly, if we are to be consistent with Rev. Stat. § 4888, a patentee cannot obtain greater coverage by failing to describe his invention than by describing it as the statute commands.”

Halliburton Oil Well Cementing Co. v. Walker, 329 U.S. 1, 12-13 (1946)





Functional claiming

35 U.S.C. §112(f) (formerly 112(6))

- *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.
- 35 U.S.C. §112(f) permits use of means-plus-function claiming of *combinations*. A single element means-plus-function claim is not permitted.



Functional claiming

How Does the USPTO Construe § 112(f)?

MPEP

- §2111.01: Plain Meaning: When an element is claimed using language falling under the scope of 35 U.S.C. 112, 6th paragraph . . . the specification must be consulted to determine the structure, material, or acts corresponding to the function recited in the claim.
- § 2114: It should be noted, however, that means plus function limitations are met by structures which are equivalent to the corresponding structures recited in the specification.

Functional claiming

MPEP 2181: §112(f) Claims Must Satisfy §112(b)

- 112(f) states that a claim limitation expressed in means-plus-function language “shall be construed to cover the corresponding structure...described in the specification and equivalents thereof.”
- “If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.”
- *In re Donaldson Co.*, 16 F.3d 1189, 1195, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994) (en banc)



Functional claiming

- Draft Guidance posted to Federal Register January 7, 2019 – Examiner training developed afterward:
- *Examining Computer-Implemented Functional Claim limitations for Compliance with 35 USC 112*
- Training video available at: <https://www.uspto.gov/video/cbt/exmcmptrimp-fnctclmlmt/index.html>



Functional claiming

Examiner training highlights

- First step is to determine broadest reasonable interpretation of the claim
- Three-prong test from MPEP 2181 will be applied
- There is no fixed list of generic placeholders that will always result in 112(f) interpretation (and vice versa)



Functional claiming

Examiner training, cont'd

- How Examiner is to determine whether word, term, or phrase coupled with a function denotes sufficient structure to avoid 112(f):
 - Look at specification
 - Look at general and subject matter dictionaries
 - Look at prior art evidence that the term denotes structure



Functional claiming: Williamson

- Claim 8. A system for conducting distributed learning among a plurality of computer systems coupled to a network, the system comprising:

...

a distributed learning control module for receiving communications a distributed learning control module for receiving communications transmitted between the presenter and the audience member computer systems and for relaying the communications to an intended receiving computer system and for coordinating the operation of the streaming data module



Functional claiming: Recent case law

- “mechanical control assembly”
 - *MTD Products Inc. v. Iancu*, 933 F.3d 1336 (Fed. Cir. 2019)
- “cheque standby unit”
 - *Diebold Nixdorf, Inc. v. International Trade Commission*, 899 F.3d 1291 (Fed. Cir. 2019)
- “customization module”
 - *Grecia v. Samsung Electronics America, Inc.*, 780 Fed.Appx. 912 (Fed. Cir. 2019)



Functional claiming: Recent case law

- “program” and “user interface code”
 - *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003 (Fed. Cir. 2018)
- “wireless device means”
 - *Skky, Inc. v. MindGeek, s.a.r.l.Eyeglasses*, 859 F.3d 1014 (Fed. Cir. 2017)
- “conduit”
 - *TEK Global, S.R.L. v. Sealant Systems International, Inc.*, 920 F.3d 777 (Fed. Cir. 2019)

Functional claiming: Recent case law

- “central piece of equipment,” “Ethernet terminal equipment” and “end device”
 - *Chrimar Holding Company, LLC v. ALE USA Inc.*, 732 Fed.Appx. 876 (Fed. Cir. 2018)
- “content processor” and “downloadable scanner”
 - *Finjan v. Bitdefender* (N.D. Cal. Feb. 14, 2019)
- “logic” and “logic configured to”
 - *VR Optics v. Peloton* (S.D.N.Y. Nov. 5, 2018)
- “apparatus” “processor” and “code”
 - *Typemock v. Telerick* (D.Mass. Aug. 31, 2018)



Functional claiming: Practice tips

- Include structure in claim (if you do not intend 112(f) treatment)
 - Description of memory, ports, etc.
 - However you may want to take advantage of doctrine of equivalents by providing equivalents in the specification
- No need to avoid functional claiming. Functional claiming allows the drafter to control the scope of the claim (through the specification)
 - Functional claiming allows the prosecutor to maintain some degree of equivalents for elements amended for reasons of patentability



Functional claiming: Practice tips

- Claims: Avoid claiming “black boxes”
 - e.g., modules, units (avoid disclosing)
 - Instead, claim/disclose processors, circuitry, etc.
 - For non-method software claims, one solution may be to claim a processor executing instructions that when executed perform a function (rather than claiming a “module”)
- Consider explicit “means” claim set
 - By claim differentiation, non-“means” claims may not invoke the statutory construction.



Functional claiming: Practice tips

- If defending an alleged generic placeholder term, argue that the claim describes how the element is interconnected with other elements or otherwise operates.
- Address Examiner's application of § 112(f)/¶6
 - Argue/amend until withdrawn; or
 - Leave claims as-is and add new non-"means" claims
- Arguments
 - Dictionary definitions



Thank you for your interest.

Questions?



Schwegman Lundberg & Woessner | slwip.com



These materials are for general informational purposes only. They are not intended to be legal advice, and should not be taken as legal advice. They do not establish an attorney-client relationship.



INSTITUTE
Building Extraordinary IP Assets

Schwegman Lundberg & Woessner | slwip.com