THE "BROADEST REASONABLE [CLAIM] INTERPRETATION" AND OTHER SHORTCOMINGS IN THE PATENT RULES: A PROPOSAL FOR A NEW RULE 73*

Harold C. Wegner**

A proposal for a new Rule 73 (attached) addresses the "broadest reasonable interpretation" standard of claim interpretation at the Federal Circuit.

Unlike other proposals and critiques of the "broadest reasonable interpretation" standard, the instant Rule 73 proposal, *here*, is to teach the patent draftsman how to present a clean, simple *Summary of the Invention* that focuses upon a clear definition of an element of the claimed invention at the point of novelty, whereby such clear definition will cabin an otherwise "broadest reasonable interpretation".

^{*} The attached paper is based in part upon an on line version of the treatise on Westlaw of Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE (Thomson Reuters 2017). Some sections are taken verbatim from the treatise (as footnoted in the text) while others benefit from research conducted in the drafting of this treatise.

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I. OVERVIEW

Patent Office guidance on claim drafting at the point of novelty of an invention is sorely needed. While this challenge has been left to fester for, quite literally, decades, the immediate need for reform of the *Rules of Practice in Patent Cases* and the *Manual of Patent Examining Procedure* may be trace to the Supreme Court decision in *Cuozzo Speed Techs., LLC v. Lee,* 136 S. Ct. 2131 (2016).

Cuozzo Speed is a Supreme Court confirmation of a Patent Office rule "that [the] PTO can construe challenged claims during IPR under broadest reasonable interpretation standard." This may permit a feature in a claim a broader interpretation such that it is closer to the prior art, and therefore more susceptible to an invalidity ruling over the prior art. See § II, Problematic Issues with the Cuozzo Speed Regime. This obvious problem for patentees has generated scholarly criticism. Id. Amplifying the problem for the patent applicant faced with a situation such as in Cuozzo Speed is the diffuse commentary in the Manual. See § III-A, What the Manual Says Today about the Summary. The at best diffuse commentary in the Manual represents a primary challenge. See § III-A, What the Manual may have been up to date more than a half century ago, but the Manual has not been significantly updated in recent years in the area of claim interpretation to deal with the reality of the current case law. See § III-B, History of Manual Teachings about the Summary.

To manifest just how far the current rules are out of touch with the present statutory scheme and reality is manifested by the nineteenth century requirement for a description of the "Nature of the Invention" which has long been eliminated from the statutory patent landscape. See § III-C, Anachronistic Requirement for the "Nature of the Invention". To be sure, there are rules and Manual provisions which do exist today, but they are sadly out of date. See § IV, Cuozzo Speech, The Rules and the Manual.

Outdated provisions in the *Code of Federal Regulations* are also a challenge. Problematic for many is Rule 42.100(b) whereby a "claim * * * shall be given its broadest reasonable construction in light of the specification ***." *See* § IV-A, *Rule 42.100(b)*. Judicial relief from this rule is next to impossible given Supreme Court confirmation of the propriety of this rule. *See* § IV-B, *The Supreme Court Cuozzo Speed case*. The diffuse guidance in the *Manual* also does not spell out relief for the applicant community. *See* § IV-C, *What the Manual Says*.

Without a clear definition of claim terminology in the *Summary of the Invention*, it may in some situations be possible to view the entire specification and, perhaps, sometimes, reach a definitional conclusion as to a particular claim limitation. *See* § V, *Difficulty to Determine Claim Scope*. Without a definition of a claim term, the task is more complex as noted from the case law, § V-A,: *Definitional Attempts without the Summary of the Invention*: "Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification. The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention."

Indeed, the problem is seen in case after case where there is no *definition* of claim terminology to preclude a "broadest reasonable interpretation" beyond what the applicant needs. *See* § V-B, *Absence of a Definitional Section*. Compounding the problem is advice from the *Manual* that may be seen in some instances to point in directions away from an express definition of terminology. *See* § V-C, *Confusion, What the Manual Says*. It has been axiomatic for a century that the applicant must often *define* terms used to define his invention, that he is forced to be his own "lexicographer".

But this puts pressure on the applicant to be sure to do just that, to properly define his invention. See § VI, Applicant's Freedom to be His Own "Lexicographer". Indeed, the applicant faces he challenge to "clearly set[] forth a definition of the term that is different from its ordinary and customary meaning(s) in the specification." See § VII, Challenge to Provide a Precise Definition.

The many practitioners who have cut their patent teeth in the vineyards of *ex parte* patent prosecution have traditionally relied upon the *Manual of Patent Examining Procedure* to teach a safe, reliable practice for drafting and prosecuting patent applications. Here, the applicant relying upon the *Manual* receives mixed messages. *See* § VIII, *Manual Guidance Vel Non*.

A new Patent Office rule to replace the current anachronistic provisions on the content of the *Summary of the Invention* is most clearly needed. This must deal with the *absence* of a positive teaching by the Office to provide express definitions at the point of novelty and the *presence* of outdated guidance that makes no sense in context of the current statutory ground rules.

In order to "codify" the basic practice that the patentee may be his own lexicographer and to encourage the provision of definitions at the point of novelty of an invention, it is proposed to scrap the current Rule 73 and replace that rule with the following rule:

37 CFR 1.73 Brief Summary of the invention.

- (a) The applicant may include a section captioned as "Brief Summary of the Invention" in which the applicant may define any feature of the claimed invention which for purposes of claim interpretation at the Office or in the Courts shall for purposes of patent infringement and validity exclude embodiments inconsistent with such definition.
- (b) The broadest reasonable interpretation normally given to a claim for purposes of infringement shall not expand the scope of a any claim beyond any definition for such claim under the foregoing subsection.

(What happens to the *old* Rule 73? As noted at § III-A, *What the Manual Says Today about the Summary*, the current Rule 73, has nothing of current value to salvage: "[T]he brief summary of the invention 'indicat[es] its nature and substance, which may include *a statement of the object of the invention* ***' and that 'the purpose of the brief summary of invention is to apprise *** those interested in the particular art to which the invention relates, of *the nature of the invention*,' and also points out that the summary is a search tool, because 'if properly written to set out *the exact nature, operation, and purpose of the invention*, [it] will be of material assistance in aiding ready understanding of the patent in future searches. The brief summary should be more than a mere statement of the objects of the invention[.]"").

While the primary focus of this study has as its focus the "broadest reasonable interpretation" standard, or more precisely, how to *adapt* to that standard, it would be a mistake to see the problems created by the "broadest reasonable interpretation" standard, it would be a mistake to think that this is the only flaw in the current regulatory scheme. This one target was chosen as the focus of this study, not merely because of its importance but also because of the notoriety it has received, particularly as it challenges have made their way to a merits opinion by the Supreme Court in *Cuozzo Speed Techs., LLC v. Lee,* 136 S. Ct. 2131 (2016). To provide a more balanced picture, three other shortcomings in the regulatory scheme are briefly highlighted. *See* § IX, *Beyond Cuozzo Speed, Other Manual Shortcomings*. Equally problematic are the requirements to disclose the "gist of the invention", *see* § IX-A, "*Gist of the Invention*"; a problematic set of suggestions for a "background of the invention", *see* § IX-B, "*Background of the Invention*" and a requirement making least sense of all, the odd suggestions for an "Abstract of the Disclosure", *see* § IX-C, "Abstract of the Disclosure."

Why is the *Summary* so important as the "home" for definitions? In theory, a definition can appear anywhere in a patent, but in practice, if there is a definition in the *Summary of the Invention* the definition will carry greater weight in the interpretation of the patent. The importance of the *Summary of the Invention* is explained in the *C.R. Bard v. U.S. Surgical* case, ¹ a point highlighted by Judge Delmendo in the *Briscoe* case.²

¹ C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 864 (Fed. Cir. 2004)(Michel, J.) ("Bard claims that a statement in the specification is not 'determinative of claim construction merely because it appears in the 'Summary of the Invention' section.' Although a statement's location is not 'determinative,' the location can signal the likelihood that the statement will support a limiting definition of a claim term. Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term. See Digital Biometrics, Inc. v. Identix, Inc., 149 F.3d 1335,

II. PROBLEMATIC ISSUES WITH THE CUOZZO SPEED REGIME

Cuozzo Speed "hold[s] that PTO can construe challenged claims during IPR under broadest reasonable interpretation standard." Patentees as a result of Cuozzo Speed have found their claim terminology expanded during litigation, such

1347 (Fed.Cir.1998) (relying on 'global comments made to distinguish the applicants' 'claimed invention' from the prior art' during the prosecution of the patent in construing a claim term). Statements that describe the invention as a whole are more likely to be found in certain sections of the specification, such as the Summary of the Invention. See Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1348 (Fed.Cir.[(2004)] ('Those statements, some of which are found in the 'Summary of the Invention' portion of the specification, are not limited to describing a preferred embodiment, but more broadly describe the overall inventions of all three patents.')[.] Accordingly, other things being equal, certain sections of the specification are more likely to contain statements that support a limiting definition of a claim term than other sections, although what import to give language from the specification must, of course, be determined on a case- by-case basis.'). See also Virnetx, Inc. v. Cisco Systems, Inc., 767 F.3d 1308, 1318 (Fed. Cir. 2014)('[T]he Summary of the Invention begins by explaining how the invention improves security by using a 'two-layer encryption format' known as the Tunneled Agile Routing Protocol, or TARP. First, an 'inner layer' secures the data itself, and then a second 'outer layer' conceals the data's 'true destination[.]' The fact that the Summary of the Invention gives primacy to these attributes strongly indicates that the invention requires more than just data security. See, e.g., C.R. Bard, 388 F.3d at 864 (giving particular weight to statements in the Summary of the Invention because 's ltatements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more port a limiting definition of a claim term').'); Genzyme Corp. v. Transkaryotic Therapies, Inc., 346 F.3d 1094, 1099 (Fed. Cir. 2003) ('Notably, the 'Summary of the Invention' explicitly states that the 'present invention,' not merely a preferred embodiment, 'involves the production of large quantities of human α -Gal A by cloning and expressing the α -Gal A coding sequence in eukaryotic host cell expression systems.')".)(emphasis added).

² Ex parte Briscoe, 2015 WL 3430398, slip op. at 4 (Patent Tr. & App. Bd. 2015)(Delmendo, APJ)(quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004) ("Although a statement's location [i.e., in the Summary of the Invention section] is not 'determinative,' the location can signal the likelihood that the statement will support a limiting definition of a claim term.").

³ Michael A. Carrier & Brenna Sooy, Five Solutions to the REMS Patent Problem, 97 B.U.L. Rev. 1661, 690, n.212 (2017)(citing *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2136 (2016), as "holding that PTO can construe challenged claims during IPR under broadest reasonable interpretation standard").

that the broader interpretation of the claims moves the claimed subject matter into a sphere of patent invalidity due to closeness of the prior art.

The broadest reasonable interpretation standard "means that examiners never need to resolve on paper the difficult 'read the claims in light of the specification.[']" "The Federal Circuit's precedent ... confirms that *the broadest reasonable interpretation standard in IPRs can have a material impact on claim construction*. This was so in the Federal Circuit's other *PPC Broadband* case, which upheld the PTAB's construction of a claim term as to certain claims but not as to others. [*PPC Broadband, Inc. v. Corning Optical Commc'ns RF, LLC* (PPC Broadband II), 815 F.3d 734 (Fed. Cir. 2016).] *** The court explained that [its claim] construction would not be 'the correct construction under *Philips*,' but that it is the 'broadest reasonable construction.'"⁵

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⁴ Dawn-Marie Bey & Christopher A. Cotropia, *The Unreasonableness of the Patent Office's* "Broadest Reasonable Interpretation" Standard, 37 AIPLA Q.J. 285, 300 (2009)("The [broadest reasonable interpretation] standard ... allows examiners to avoid tough claim interpretation issues. It explicitly does not require the examiner to determine the correct claim interpretation. Instead, examiners just need to give the claim a "reasonable" interpretation. This means that examiners never need to resolve on paper the difficult 'read the claims in light of the specification, but do not read the limitations from the specification into the claims' conundrum faced in almost every claim interpretation inquiry. Most importantly, the applicant does not have to respond to such analysis. Prosecution history as to whether limitation "A" from the specification should be read into the claims is never created because the [broadest reasonable interpretation] standard prevents the conversation from ever happening. The public is then robbed of discussions of claim meaning that could assist in future interpretation. ****")(footnote omitted).

⁵ Christopher A. Suarez, *Navigating Inter Partes Review Appeals in the Federal Circuit*, 9 No. 3 Landslide 49 (January/February, 2017) (emphasis added)(footnote integrated into text with footnotes consisting of page cites to *PPC Broadband* omitted).

The charge is made that "the broadest reasonable interpretation opens an entire new avenue of attack on a patent's validity[.]" "The PTO applies the broadest reasonable interpretation [] standard, which liberally construes terms." "The [broadest reasonable interpretation] standard requires the claim to be constructed as broadly as possible while still being consistent with the language in the claim and other sections of the patent."

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⁶ Trevor O'Neill, *Inter Partes Review, the Broadest Reasonable Interpretation, and the Takings Clause,* 18 Colum. Sci. & Tech. L. Rev. 492, 507-08 (2017)("The use of the broadest reasonable interpretation opens an entire new avenue of attack on a patent's validity, and one that is turning out to be heavily biased against patent owners. Many industries invest heavily in technologies based on patents; it seems likely that patents with high investment-backed expectations have undergone an IPR to their detriment.")

⁷ Laura E. Dolbow, *A Distinction Without a Difference: Convergence in Claim Construction Standards*, 70 Vand. L. Rev. 1071, 1073 (2017).

⁸ Trevor O'Neill, *Inter Partes Review, the Broadest Reasonable Interpretation, and the Takings Clause,* 18 Colum. Sci. & Tech. L. Rev. 492, 496 (2017)(citing U.S. Patent and Trademark Office, Manual of Patent Examining Procedure § 2111 (9th ed. 2015) (describing the use of the broadest reasonable interpretation during patent examination)).

"In reexamination, 'claims ... are to be given their broadest reasonable interpretation *consistent with* the specification, and *** claim language should be read *in light of* the specification as it would be interpreted by one of ordinary skill in the art." "During reexamination, the Board must construe claims giving them their broadest reasonable interpretation *consistent with* the specification." ¹⁰

⁹ *In re NTP, Inc.*, 654 F.3d 1279, 1287 (Fed.Cir.2011)(citing *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed.Cir.2004))(emphasis added).

¹⁰ *In re Affinity Labs of Texas, LLC*, 856 F.3d 902122, 906-07 (Fed. Cir. 2017)(Chen, J.)(citing *In re Rambus, Inc.*, 753 F.3d 1253, 1255 (Fed. Cir. 2014)(emphasis added).

III. MANUAL AND RULES FAILURE ABOUT THE "SUMMARY ***"

A. What the Manual Says Today about the Summary

Nowhere in the *Manual of Patent Examining Procedure* is there any reference to the *Summary of the Invention* in terms of providing a *definition* of the scope of protection. The *Manual of Patent Examining Procedure* has several references to the *Summary of the Invention*, but nowhere is there any reference to the *Manual* as a *definitional tool*.

The Manual first quotes from 37 CFR 1.73, Summary of the invention, which notes that the "brief summary of the invention indicat[es] its nature and substance, which may include a statement of the object of the invention ***" and that "the purpose of the brief summary of invention is to apprise *** those interested in the particular art to which the invention relates, of the nature of the invention," and also points out that the summary is a search tool, because "if properly written to set out the exact nature, operation, and purpose of the invention, [it] will be of material assistance in aiding ready understanding of the patent in future searches. The brief summary should be more than a mere statement of the objects of the invention[.]"

The *Manual* also explains that "[t]he summary may point out the *advantages of the invention or how it solves problems previously existent in the prior art* (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, *the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention."*

To best understand the obfuscation of the invention through statements in the *Summary of the Invention*, it is useful to quote from the *Manual*:

37 CFR 1.73 Summary of the invention.

A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention <u>as</u> claimed and any object recited should be that of the invention as claimed.

Since the purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the nature of the invention, the summary should be directed to the specific invention being claimed, in contradistinction to mere generalities which would be equally applicable to numerous preceding patents. That is, the subject matter of the invention should be described in one or more clear, concise sentences or paragraphs.

The brief summary, if properly written to set out the exact nature, operation, and purpose of the invention, will be of material assistance in aiding ready understanding of the patent in future searches. The brief summary should be more than a mere statement of the objects of the invention, which statement is also permissible under 37 CFR 1.73.

The brief summary of invention should be consistent with the subject matter of the claims. ***. 11

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¹¹ MPEP § 608), *Brief Summary of Invention* [R-07.2015](downloaded from Westlaw November 22, .01(d 2017, current through the Ninth Edition, October 2015).

The *Manual* has a section, *Arrangement of Application*, which includes a quotation from 37 CFR § 1.77(b) to note the placement order of the *Summary of the Invention*, as well as 37 CFR § 1.77(h), which details the content of the *Summary of the Invention*.

37 CFR 1.77 Arrangement of application elements.

* * *

- (b) The specification should include the following sections in order:
- (1) Title of the invention, which may be accompanied by an introductory portion stating the name, citizenship, and residence of the applicant (unless included in the application data sheet).
- (2) Cross-reference to related applications.
- (3) Statement regarding federally sponsored research or development.
- (4) The names of the parties to a joint research agreement.
- (5) Reference to a "Sequence Listing," a table, or a computer program listing appendix submitted on a compact disc and an incorporation-by-reference of the material on the compact disc (see § 1.52(e)(5)). The total number of compact discs including duplicates and the files on each compact disc shall be specified.
- (6) Statement regarding prior disclosures by the inventor or a joint inventor.
- (7) Background of the invention.
- (8) Brief summary of the invention.
- (9) Brief description of the several views of the drawing.
- (10) Detailed description of the invention.
- (11) A claim or claims.
- (12) Abstract of the disclosure.
- (13) "Sequence Listing," if on paper (see §§ 1.821 through 1.825). * * *

\P 6.02 Content of Specification

Content of Specification

* * *

B. History of *Manual* Teachings about the *Summary*

__-1. Shortcomings of the Summary of the Invention¹³

As one example of the shortcomings of the *Manual* as a teaching tool, consider the contents of what *should* be in a *Summary of the Invention* versus what the *Manual* says should be in the *Summary of the Invention*.

If properly drafted, the *Summary should* recite the elements of the claimed invention and include definitions of otherwise ambiguous terms particularly at the point of novelty. For generic coverage, the *Summary* should also name plural embodiments for an element of the claimed invention where only one is set forth in the *Detailed Description of the Invention*. In the case of novel chemical or biotechnology entities, a statement of specific usefulness should be provided.

¹² MPEP § 608.01(a), *Arrangement of Application* [R-07.2015] (downloaded from Westlaw November 22, 2017, current through the Ninth Edition, October 2015)(emphasis added).

¹³This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, § 7:4, *Summary of the Invention, Prime Example of a Failed Teaching* (Thomson Reuters 2017).

Instead, the *Manual* cites to the relevant rule for the *Summary of the Invention* which says *nothing* about any of the above "best practices" features that *should* be included in the *Summary of the Invention*. Instead, the rule says that the *Summary of the Invention* should recite the "nature" of the invention and recite "objects" of the invention.

Amazingly, the "nature" of the invention is required by the Rules of Practice: Nowhere is there any *definition* or even explanation in the *Manual* as to precisely what *is* the "nature" of an invention.

In fact, the "nature" of the invention disclosure requirement dates back all the way to the 1830's as a statutory requirement but has not been that has not been a part of the patent law since January 1, 1953, more than sixty (60) years ago.

Recitation of an "object" of the invention has no statutory basis and its usage has long been discredited in the case law. Recitation of an "object" is far from a harmless mistake: An "object" can be basis for a narrowed scope of protection.

2. The Practice as of the 1949 First Edition¹⁴

Before considering what the *Manual* should *not* say, it is important to note what the *Manual* itself *does not but should* say about the content of a *Summary of the Invention*. Each of the following points *should be* in the *Manual* to reflect case law decisions over the past several decades. The absence of these features manifests a failure to update the *Manual*:

¹⁴ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, § 7:5, *Tracing the Origins to the 1949 First Edition* (Thomson Reuters 2017).

Thus, the Patent Office rule nowhere says that the *Summary of the Invention* should contain a verbatim recitation of claim language, should contain exemplification of alternate elements where an element in the claims has a limited disclosure, and should contain an express definition at the point of novelty, particularly as a way to cabin the "broadest reasonable interpretation" of the claims.¹⁵

To the contrary, in the original 1949 First Edition the *Manual* says that the invention should be broken down into sentences that "paraphrase" the claim language: "[T]he purpose of the general statement of invention is to apprise the public *** of the nature of the invention [so that] the statement should be directed to the specific invention claimed ***. That is, the subject matter of the claims taken as a unit should be *paraphrased* in a few clear, concise sentences or paragraphs, according to the extent and nature of the invention. ****"¹⁶

Why paraphrase the claim language? What possible positive purpose is achieved by deviating from the claim wording? Many years ago a leading English patent expert explained:

¹⁵ There has been a great deal of controversy over the "broadest reasonable interpretation" standard given to claims at the Patent Office. The applicant, however, has it within its power to trump such an interpretation by including in the *Summary of the Invention a specific definition* of terms at the point of novelty. *See* § 6:8, *Summary of the Invention Definitions to Cabin the* "*Broadest Reasonable Interpretation.*"

¹⁶ MANUAL OF PATENT EXAMINING PROCEDURE (1st ed. 1949), § 8-9-5, General Statement of Invention (quoting Rule 10.2, Summary of the Invention) (Dept. of Commerce 1st ed. 1949)(emphasis added).

"[M]ost people agree that in normal cases it is desirable to include in the early part of the specification some broad statement of the invention. Some suggest that the statement should not adhere to the words of the claim but I think any departure is liable to be dangerous. If one has spent time and thought bringing the claim to the best wording one can think of, it seems illogical to employ a second best for the statement of the invention."¹⁷

None of these important elements for a *Summary of the Invention* is housed within Rule 73.

While the current, relevant *Manual* section is silent on confusing terminology the original 1949 First Edition included the mandate that "[a] term used in the claims may be given a special meaning in the description. No term may be given a meaning repugnant to the usual meaning of the term. *** *The use of a confusing variety of terms for the same thing should not be permitted.*" ¹⁸

3. Omissions from the Manual¹⁹

One of the best examples of the endorsement of bad practices by the Patent Office is its statement about the content of the *Summary of the Invention*. Nowhere in its discuss of the *Summary of the Invention* does the *Manual of Patent Examining Procedure* speak of the best practice of including a verbatim recitation

¹⁷ E.W.E. Micklethwait, *Brushing Up Our Drafting*, Trans. CIPA LXV p. 72 (1946-1947), *reproduced*, Cole, Paul, ed., FUNDAMENTALS OF PATENT DRAFTING, 155, 162 (CIPA 2006).

¹⁸ MPEP § 608.01(o), *Basis for Claim, Terminology in Description* (1st ed. 1949)(emphasis added).

¹⁹ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:6, *What the Manual Doesn't but <u>Should Require</u>* (Thomson Reuters 2017).

of the claim elements. Neither does it speak to *defining* any element at the point of novelty. *See* § 7:8, *Definitions at the Point of Novelty*. Neither does the *Manual* advise about the benefits of reiting plural embodiments of an element that should be broadly interpreted.²⁰

a. Examples of Claim Elements²¹

If a particular element is exemplified several times in an application but with only one embodiment, case law has in some instances limited the scope of protection as to that element to the exemplified embodiment. *See LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed.Cir.2005); *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed.Cir.2001)); *ScriptPro, LLC v. Innovation Assocs., Inc.*, _____F.3d _____, _____, 2016 WL 4269920 (Fed. Cir. 2016)(Moore, J.)(dictum)("[In *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1988) and *ICU Medical, Inc. v. Alaris Medical Systems, Inc.*, 558 F.3d 1368 (Fed. Cir. 2009)], the specifications clearly limited the scope of the inventions in ways that the claims clearly did not. *Gentry Gallery*, 134 F.3d at 1479 ('the original disclosure clearly identifies the console as the only possible location for the controls' and the claims did not limit the location of the controls); *ICU Med.*, 558 F.3d at 1378 ('the specification describes only medical valves with spikes' and the claims did not include a spike limitation).").

²⁰ See §7:7, What the Manual Doesn't but Should Require -- Exemplification of Claim Element. Instead, the Manual includes the desirability of reciting, e.g., "nature" of the invention, see §7:10, What the Manual Should Not Require, "Nature of the Invention."

²¹ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:7, *Exemplification of Claim Elements* (Thomson Reuters 2017).

As a prophylactic against a narrow interpretation because of the limited exemplification of a particular element of the claims, it is helpful if plural embodiments are named in the *Summary*.

b. Cabining the "Broadest Reasonable Interpretation"22

The Summary of the Invention may include a definition of an element at the point of novelty of the claimed invention, and thereby deny the Patent Office a broadest reasonable interpretation of that element to the point that the claim would read on an embodiment obvious over the prior art. See § 6:6, Cabining the "Broadest Reasonable Interpretation" (quoting the policy rationale in Cuozzo Speed Technologies, LLC v. Lee, 136 S.Ct. 2131 (2016), affirming the Federal Circuit "broadest reasonable interpretation" standard in post grant proceedings.

The Patent Office rule for claim construction at the Patent Trial and Appeal Board gives all terms their "broadest reasonable interpretation". This can be mitigated by an express definition of a term in the *Summary of the Invention*.

While the *Manual* teaches that a *Summary of the Invention* should be filed, and while the relevant rule and its interpretation in the *Manual*, say nothing about including definitions of elements at the point of novelty, several hundred pages later the *Manual* a different story is told. The *Manual* in its discussion of how to draft a *Summary of the Invention* says nothing about the case law that an element in

²² This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:8, *Definitions to Cabin the "Broadest Reasonable Interpretation"* (Thomson Reuters 2017).

a claim is to be given its broadest reasonable interpretation consistent with the specification. See § 6:8, Definitions to Cabin the "Broadest Reasonable Interpretation" (citing cases). Significantly, the Manual discussion of the Summary of the Invention fails to show the different picture of what a Summary of the Invention should look like with respect to definitions. Id. (quoting the Manual, "words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification[;]" "[t]he presumption that a term is given its ordinary and customary meaning may be rebutted by the applicant by clearly setting forth a different definition of the term in the specification[;]" "the greatest clarity is obtained when the specification serves as a glossary for the claim terms[;]" "[t]he The only exceptions to giving the words in a claim their ordinary and customary meaning in the art are (1) when the applicant acts as his own lexicographer; and (2) when the applicant disavows or disclaims the full scope of a claim term in the specification[;]" '[a]n applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning(s) in the specification at the time of filing.")

c. Conflict within Manual Provisions²³

While the main portion of the *Manual* in Chapter 600 instructs on what the content of the *Summary of the Invention* should contain – nowhere even remotely suggesting definitions of key elements of the claimed subject matter, many

²³ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:9, *Internal Conflict within the Manual* (Thomson Reuters 2017).

chapters and several hundred pages later in Chapter 2100, *Patentability*, clearly conflicting advice is given. *See* § 6:8, *Definitions to Cabin the "Broadest Reasonable Interpretation* (discussing MPEP § 2111, *Claim Interpretation*; *Broadest Reasonable Interpretation* et. seq. (R-07)(2015)). In Chapter 2100, the advice is repeatedly given that one can avoid a "broadest reasonable interpretation" by providing a specific definition of an element. (While this advice does not say to house this definition in the *Summary of the Invention*, clearly this would be the most appropriate place to do so.)

C. Anachronistic Requirement for the "Nature of the Invention"24

"Nature of the invention" is an anachronism of the early patent law which was originally derived from English patent law.²⁵ While there is no rule mandating a definitional section in the *Summary of the Invention*, there *is* a rule even today that mandates a disclosure of the "nature of the invention".

There is no better example of a provision in the first edition that was proper at the time that *remains* today – even in the Rules of Practice of Patent Cases – when long overruled either by statutory enactment or case law. The *Manual of Patent Examining Procedure* through its numerous revisions dating back to the

²⁴ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:10, What the Manual <u>Should Not</u> Require, "Nature of the *Invention*" (Thomson Reuters 2017).

²⁵ Earle v. Sawyer, 8 F.Cas. 254, 257 (C.C.Mass. 1825) (No. 4,247) (Story, J.))("[T]here is no ground for this [challenge to patent validity], even upon the law of patents in England, where *** [it] is required by a proviso in every grant *** particularly to describe and ascertain the *nature of the invention* ***.")(emphasis added).

original 1949 first edition provides a snapshot of the failure of the Office to update its guidance to keep in tune with statutory changes:

The original 1949 edition of the *Manual* includes a quotation from the Rules of Practice:

"Summary of the Invention. A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed."²⁶

By 1961, the *same Rule 73* is recited in the same section of the *Manual* (since retitled as *Brief Summary of the Invention*). In addition, the following statement has been added to the *Manual*:

"[T]he purpose of the brief summary of invention is to apprise the public ... of the nature of the invention[.] ***

The brief summary, if properly written to set out the exact nature, operation and purpose of the invention will be of material assistance in aiding ready understanding of the invention in future searches. See [§] 905.04. ***

The brief summary of invention should be consistent with the subject matter of the claims. $***^{27}$

²⁶ MPEP§ 608.01(d), General Statement of Invention (quoting Rule 73)(Original 1949 edition).

²⁷ MPEP § 608.01(d). *Brief Summary of the Invention* (Third edition 1961).

1. *Nature*, a Requirement beginning in 1836²⁸

A "correct[]" indication of the "nature" and "design" of an invention was introduced as a statutory requirement of the 1836 patent law as a codification of the case law interpretation of the 1793 Patent Act as explained in *Hogg v*. *Emerson*, 47 U.S. (6 How.) 437 (1848)(Woodbury, J.). The requirement for a disclosure of the "nature of the invention" may be traced to eighteenth century English opinions as seen from *Boulton v. Bull*, 126 E.R. 651 (Common Pleas 1795)(Rooke, J.), and *Hornblower v. Boulton*, 101 E.R. 1285 (King's Bench 1799).²⁹

The terminology, "nature of the invention", had been used even earlier. See Blackwell v. Harper, 27 E.R. 616 (Ct of Chancery 1740)("Lord Chancellor said, That *** the Prints in Question are not of such a Kind, as to entitle Elizabeth Blackwell to the Benefit of the Statute of 8 Geo. 2, on Account of the Nature of the Invention itself[.]")(emphasis added); Basket v University of Cambridge, 96 E.R. 1222 (King's Bench 1758)(Mr. Solicitor-General (Yorke) for the defendants)("Some instances there are of patents for printing particular books, in nature of new inventions, and they are mentioned in Rymer's Fcedera, but they were only temporary.")(emphasis added); see also Hornblower v. Boulton, 101 E.R. 1284, 1288 (Kings

²⁸ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, § 7:11, "*Nature of the Invention": 1836 Statutory Basis* (Thomson Reuters 2017).

^{***} on the condition of a specification of the *nature of the invention*: that a specification has been made, sufficient to enable a mechanic to construct fire engines containing the improvement invented by the patentee[.]")(emphasis added); *Hornblower v. Boulton*, 101 E.R. 1285, 1288-89 (King's Bench 1799)("[T]he inventor had by his specification particularly described *the nature of his invention*, and the manner in which it was to be performed[.] ***. By a proviso in the patent, the patentee is bound particularly to describe and ascertain the nature of his invention, and in what manner the same was to be performed ***. *** Now the patent recites, that Mr. Watt had invented a method of lessening the consumption of steam and fuel in fire engines; it grants to him the sole use and exercise of that invention, upon condition that he would disclose *the nature of the invention*, and in what manner the same was to be performed by an instrument inrolled. He does so, and that instrument describes the principles of the method, and the method by which those principles are to be carried into effect.")(emphasis added).

Under the 1793 Patent Act when members of the Cabinet participated in examination of patent applications, the Attorney General offered his opinion to the Secretary of State that a particular invention of one Elisha Perkins was not patentable where the heading given (whether as part of the letter or added later by a Reporter) was "Specifications for inventions should be such as to convey to all the world the nature of the invention". In *Isaacs v. Cooper*, 13 F.Cas. 153 (C.C.D. Pa. 1821) (No. 7,096) (B. Washington, J.), Justice Washington states that a

Bench 1799)(Ashhurst, J.)("[The fury found] that the inventor had by his specification particularly described the nature of his invention, and the manner in which it was to be performed[.])"; *Hornblower*, 101 E.R. at 1288)(Grose, J.)("[T]he patentee is bound particularly to describe and ascertain the nature of his invention, and in what manner the same was to be performed[,]"); *Harner v. Plane*, 330 E.R. 470, 472 (Ct. of Chancery 1807)("[I]f the patentee shall not particularly describe and ascertain the nature of his invention, and in what manner it is to be performed, &c., the letters patent shall be void[.]").

Mr. Perkins has not specified in express language—

³⁰ Letter from the Attorney General, Charles Lee, to the Secretary of State, February 10, 1796, 1 U.S. Op. Atty. Gen. 64, 64-65 (U.S.A.G.): "Upon examining the specification of Elisha Perkins, of his method of removing pains and inflammations from the human body by the application of metallic substances, I doubt whether it be so distinct, intelligible, and certain, as it ought to be before a patent is granted. In all cases, the object of the law is to acquire and distribute useful knowledge; which in no case will be obtainable, unless the invention be so explained that other persons besides the author may understand and use it; more especially, when the alleviation of human misery is intended, care should be taken to have a plain and thorough exposition of the art.

¹st. Whether *all* metals will produce the like effect; and if not, he should describe what sort only will produce it; and how it is to be *composed*, if it be a compound of metallic substances.

2d. What shape and size the instrument ought to have, to be most operative; and whether the

point ought to be very sharp, and whether it be the better for being the more sharp.

³d. The words, 'applying a pointed piece of metal to the part affected, and drawing it across and from the part to some of the muscular,' &c., so vaguely describe the manner of using it, that there is danger of misunderstanding the directions; and if misused, the instruments may be very mischievous. I think it a good general rule, that a thing capable of doing good if judiciously used, may be very pernicious if misapplied. I wish Dr. Perkins to remove these doubts by a more full and particular specification."

patent is invalid for want of a disclosure of the "nature of the invention." Four years later, in *Earle v. Sawyer*, 8 F.Cas. 254, 257-58 (C.C.Mass. 1825) (No. 4,247) (Story, J.)), Justice Story confronted a case which also appeared to be keyed to an insufficient disclosure of the invention.³²

³¹ Isaacs v. Cooper, 13 F.Cas. at 154 ("The patent is for an improvement on the horizontal wheel, invented by the plaintiff. But what the *nature of the invention* was upon which this is alleged to be an improvement, is not stated. Was it patented; and if not, is there any other source of information to which others can resort, in order to find it out, so as to enable them to distinguish the improvement from the original invention, and, in that way, to discover in what the improvement consists? Neither the patent or specification affords the slightest information upon those points. The invention alluded to may, for aught that appears, be known to no other person than the plaintiff. How then can any human being, however skillful in the art, find out, with certainty, or even conjecture, in what the improvement consists, from the patent itself, or from the records in the patent office? If the original invention had been patented, the specification should at least have referred, and plainly described it. If it was not, it should have stated what that invention was, and in what the improvement consists. As the matter stands, the *nature of the improvement* is altogether unintelligible.")(emphasis added).

^{32 &}quot;It seems to me then there is no ground for this objection to the charge, even upon the law of patents in England, where the specification constitutes no part of the patent itself, but is required by a proviso in every grant, to be enrolled in the court of chancery, within a limited time, and particularly to describe and ascertain the *nature of the invention*, and in what manner the same is to be performed. [citation omitted]. But how stands our own law on this subject; for by this the question must, after all, be decided? The patent act requires, that the inventor 'shall deliver a written description of his invention, and of the manner of using, or process of compounding the same, in such full, clear, and exact terms, as to distinguish the same from all other things before known, &c., &c.; and in the case of a machine, he shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions; and he shall accompany the whole with drawings and written references, where the nature of the case admits of drawings,' &c. This is an explicit direction to annex drawings, where the nature of the case admits of them, with written references; and when so annexed, they become part of the written description required by the act. They may be indispensable to distinguish the thing patented from other things before known. Surely, then, the act could not intend studiously to exclude them as part of the written description. That would be to require the end and deny the means." Earle v. Sawyer, 8 F.Cas. at 257-58 (emphasis supplied)

As explained in the Curtis treatise, the 1836 patent law made it a statutory requirement that a patent "shall contain a short description * * * of the invention * * *, correctly indicating [the] nature and design [of the invention.]" ³³ The page cited by *Curtis* from *Hogg v. Emerson* puts the 1836 statutory origin of the requirement for a disclosure of the "nature and design" of the invention in perspective as part of the evolution of the requirements to define the invention:

"[T]he revising act as to patents, in July 4th, 1836, changed the phraseology of the law in this respect, in order to conform to this long usage and construction under the act of 1793, and required not in terms any abstract of the petition in the patent, but rather 'a short description' or title of the invention or discovery, 'correctly indicating its *nature and design*,' and 'referring to the specification for the particulars thereof, a copy of which shall be annexed to the patent.' And it is that—the specification or schedule—which is fully to specify 'what the patentee claims as his invention or discovery.' Sec. 5. (5 Statutes at Large, 119.)

"It was, therefore, from this long construction, in such various ways established or ratified, that, in the present patent, the schedule, or, in other words, the specification, was incorporated expressly and at length into the letters themselves, not by merely annexing them with wafer or tape, as is argued, but describing the invention as an 'improvement, a description whereof is given in the words of the said John B. Emerson himself, in the schedule hereto annexed, and is made a part of these presents.' Hence, too, wherever this form has been adopted, either before or since the act of 1836, it is as much to be considered with the letters,— literae patentees, — in construing them, as any paper referred to in a deed or other contract.

How.) at 482, and quoting from The Act of Congress of July 4, 1836, c. 357, § 6: "[E] very patent shall contain a short description or title of the invention or discovery, correctly indicating its nature and design[.]").

³³ George Ticknor Curtis, A Treatise on the Law of Patents for Useful Inventions, §221, p. 251 n.3 (Boston: Little, Brown, and Company 1873)(4th ed.))(citing *Hogg v. Emerson*, 47 U.S. (6

"Most descriptions of lands are to be ascertained only by the other deeds and records expressly specified or referred to for guides; and so of schedules of personal property, annexed to bills of sale. *Foxcroft v. Mallett*, 4 How. 378; 21 Maine, 69; 20 Pick. 122; Phil. on Pat. 228; *Earle v. Sawyer*, 4 Mason, C. C. 9; *Ex parte Fox*, 1 Ves. & Beames, 67. The schedule, therefore, is in such case to be regarded as a component part of the patent. Peters, C. C. 394, and Davis v. Palmer et al., 2 Brockenbrought, 301. "³⁴

Prior to the reference in *Hogg v. Emerson* to the 'nature of the invention' quoted above, the earlier history of the patent law and practice in both England and the United States is explained:

"[T]he improvement referred to in the writ and in the letters-patent [in the current case], with the schedule or specification annexed, was in truth one and the same.

"Coupling the two last together, they constitute the very thing described in the writ. But whether they can properly be so united here, and the effect of it to remove the difficulty, have been questioned, and must therefore be further examined. We are apt to be misled, in this country, by the laws and forms bearing on this point in England being so different in some respects from what exist here.

"[T]he patent [as] first issued... contains no reference to the specification, except a stipulation that one shall, in the required time, be filed, giving a more minute description of the matter patented. (Webster on Pat. 5, 88; Godson on Pat. 6, App.) It need not be filed under two to four months, in the discretion of the proper officer. (Godson on Pat. 176.)

"Under these circumstances, it will be seen that the patent, going out alone there, must in its title or heading be fuller than here, where it goes out with the minute specification. But even there it may afterwards be aided, and its matter be made more clear, by what the specification contains. They are, says Godson on Pat. 108, 'connected together,' and 'one may be looked at to understand the other.' See also 2 Hen. Bl. 478; 1 Webst. Pat. R. 117; 8 D. & E. 95.

"There, however, it will not answer to allow the specification, filed separately and long after, to be resorted to for supplying any entire omission in the patent; else something may be thus inserted afterwards which had never been previously examined by the proper officers, and which, if it had been submitted to

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³⁴ Hogg v. Emerson, 47 U.S. (6 How.) at 482 (emphasis added).

them in the patent and examined, might have prevented the allowance of it, and which the world is not aware of, seeing only the letters-patent without the specification, and without any reference whatever to its contents. 3 Brod. & Bingh. 5.

"The whole facts and law, however, are different here. This patent issued March 8th, 1834, and is therefore to be tested by the act of Congress then in force, which passed February 21st, 1793. (1 Statutes at Large, 318.)

"In the third section of that act it is expressly provided, 'that every inventor, before he can receive a patent,' 'shall deliver a written description of his invention,' &c.;—thus giving priority very properly to the specification rather than the patent.

"This change from the English practice existed in the first patent law, passed April 10th, 1790 (1 Statutes at Large, 109), and is retained in the last act of Congress on this subject, passed July 4th, 1836 (5 Statutes at Large, 119).

"It was wisely introduced, in order that the officers of the government might at the outset have before them full means to examine and understand the claim to an invention better, and decide more judiciously whether to grant a patent or not, and might be able to give to the world fuller, more accurate, and early descriptions of it than would be possible under the laws and practice in England.

"In this country, then, the specification being required to be prepared and filed before the patent issues, it can well be referred to therein in extenso, as containing the whole subject-matter of the claim or petition for a patent, and then not only be recorded for information, as the laws both in England and here require, but beyond what is practicable there, be united and go out with the letters-patent themselves, so as to be sure that these last thus contain the substance of what is designed to be regarded as a portion of the petition, and thus exhibit with accuracy all the claim by the inventor.

"But before inquiring more particularly into the effect of this change, it may be useful to see if it is a compliance with the laws in respect to a petition which existed when this patent issued, but were altered in terms shortly after.

"A petition always was, and still is, required to be presented by an inventor when he asks for a patent, and one is recited in this patent to have been presented here. It was also highly important in England, that the contents of the petition as to the description of the invention should be full, in order to include the material parts of them in the patent, no specification being so soon filed there, as here, to obtain such description from, or to be treated as a portion of the petition, and the whole of

it sent out with the patent, and thus complying with the spirit of the law, and giving fuller and more accurate information as to the invention than any abstract of it could.

"In this view, and under such laws and practice here, it will be seen that the contents of the petition, as well as the petition itself, became a very unimportant form, except as construed to adopt the specification, and the contents of the latter to be considered substantially as the contents of the former.

"Accordingly, it is not a little curious, that, though the act of 1793, which is to govern this case, required, like that of 1790, a petition to be presented, and the patent when issued, as in the English form, to recite the 'allegations and suggestions of the petition,' (1 Statutes at Large, p. 321, sec. 1, and p. 110, sec. 3,) yet, on careful inquiry at the proper office, so far as its records are restored, it appears that, after the first act of 1790 passed, the petitions standing alone seldom contained anything as to the patent beyond a mere title; sometimes fuller, and again very imperfect and general, with no other allegations or suggestions, or descriptions whatever, except those in the schedule or specification. The only exception found is the case of Evans v. Chambers, 2 Wash. C. C. 125, in a petition filed December 18th, 1790.

"Though the records of the patent-office before 1836 were consumed [by the fire in the Patent Office] in that year, many have been restored, and one as far back as August 10th, 1791, where the petition standing alone speaks of having invented only 'an easy method of propelling boats and other vessels through the water by the power of horses and cattle.' All the rest is left to the schedule. Other petitions, standing alone, are still more meagre; one, for instance, in 1804, asks a patent only of a 'new and useful improvement, being a composition or tablets to write or draw on'; another, only 'a new and useful improvement in the foot-stove'; and another, only 'a new and useful improvement for shoemaking'; and so through the great mass of them for nearly half a century. But the specification being filed at the same time, and often on the same paper, it seems to have been regarded, whether specially named in the petition or not, as a part of it, and as giving the particulars desired in it; and hence, to avoid mistakes as to the extent of the inventor's claim, and to comply with the law, by inserting in the patent at least the substance of the petition, the officers inserted, by express reference, the whole descriptive portion of it as contained in the schedule. This may have grown out of the decision of Evans v. Chambers, in order to remedy one difficulty there. Cases have been found as early as 1804, and with great uniformity since, explicitly making the schedule annexed a part of the letters-patent. Proofs of this exist, also, in our reports, as early as 1821, in Grant et al. v. Raymond, 6 Peters, 222; and one, 1st Oct., 1825, in

Gray et al. v. James et al., Peters, C. C. 394; and 27 Dec. 1828, Wilson v. Rousseau, 4 How. 649.

"Indeed, it is the only form of a patent here known at the patent-office, and the only one given in American treatises on patents. Phillips on Pat. 523. Doubtless this use of the schedule was adopted, because it contained, according to common understanding and practice, matter accompanying the petition as a part of its substance, and all the description of the invention ever desired either in England or here in the petition. Hence it is apparent, if the schedule itself was made a part of the patent, and sent out to the world with it, all, and even more, was contained in it than could be in any abstract or digest of a petition, as in the English form. "³⁵

The importance of the specification to interpret the scope of the patent right was emphasized by Justice Woodbury:

"[W]hen we are called upon to decide the meaning of the patent included in these letters, it seems our duty not only to look for aid to the specification as a specification, which is customary, (1 Gall. 437; 2 Story, R. 621; 1 Mason, C. C. 477,) but as a schedule, made here an integral portion of the letters themselves, and going out with them to the world, at first, as a part and parcel of them, and for this purpose united together for ever as identical.

"It will thus be seen, that the effect of these changes in our patent laws and the long usage and construction under them is entirely to remove the objection, that the patent in this case was not as broad as the claim in the writ, and did not comply substantially with the requirements connected with the petition.

"From want of full attention to the differences between the English laws and ours, on patents, the views thrown out in some of the early cases in this country do not entirely accord with those now offered. Paine, C. C. 441; *Pennock et al. v. Dialogue*, 2 Pet. 1. Some other diversity exists at times, in consequence of the act of 1793, and the usages under it in the patent-office, not being in all respects as the act of 1836. But it is not important, in this case, to go farther into these considerations."

³⁶ *Id*.

³⁵*Hogg v. Emerson*, 47 U.S. (6 How.) at 478-81.

There are several further early references to the "nature of the invention." ³⁷

2. Claiming Requirement Since 1870³⁸

Perhaps the "nature" of the invention disclosure requirement made sense in the early to mid-nineteenth century when claims were not mandatory as the definition of the invention. But, in the 1870 law that made the patent claim the mandatory feature to define the invention, the now-anachronistic "nature of the invention" requirement was maintained: "[E]very patent shall contain a short title

³⁷ See also Smith v. Pearce, 22 F.Cas. 619 (C.C.D. Ohio 1840)(No. 13,089 (quoting patent granted in 1830)("The *nature of the invention* consists in the peculiar construction of the husk or frame, to be used for the purpose of accommodating and securing millstones for grinding grain into meal or flour, or any other business calculated to be done under the operation of grinding. The husk or frame is made of iron, compact and firmly secured together by bolts. The mills are calculated to be transported with safety, all finished in a perfect and workmanlike manner ready for grinding. They are to be put in motion either by straps or cog-gearing, whichever the purchaser shall choose.")(emphasis added); Davoll v. Brown, 7 F.Cas. 197 n.2 (C.C.D. Mass. 1845)(No. 3,662)(quoting patent)("Having thus fully described the *nature of my invention*, in the improved construction of the speeder, double speeder, or fly-frame, what I claim therein as new, and desire to secure by letters patent, is the arrangement of the spindles and flyers in two rows, in combination with the described arrangement of gearing.")(emphasis added); Cochrane v. Waterman, 5 F.Cas. 1145, 1146 (C.C.D.C. 1844)(No. 2929)("[The] specification[] says that the nature of [the] invention consists in applying the endless screw or worm, working in cogs on the periphery of a quadrant, to the moving or holding of the rudder; and also in the application of springs to compensate for the action of the sea on the rudder. The commissioner refused to grant the patent, because, as to the first supposed improvement, viz., the application of the endless screw to the cogs on the periphery of a quadrant, it was not the invention of an improvement; and as to the second improvement, viz., the springs on the tiller, it would interfere with a patent already granted to Henry Waterman.")(emphasis added).

³⁸ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:6, *What the Manual Doesn't but Should Require* (Thomson Reuters 2017).

or description of the invention or discovery, correctly indicating its *nature and* design...."

As explained by Professor Mueller, "[c]laims were first mentioned in the U.S. Patent Act of 1836, but not mandated by statute until 1870. Prior to these enactments, patent applicants dislosed their invention to the world by means of a written description. This description provided a narrative explanation of how to make and use the invention, as well as a statement of how the invention differed from what had come before. [*Evans v. Eaton*, 16 U.S. 454, 514-14 (1818).] If a claim was included in the patent at all, it was something of an afterthought, having no more legal significance than the written description."

In *Rubber-Coated Harness-Trimming Co. v. Welling*, 97 U.S. (7 Otto) 7 (1877)(Hunt, J.), a case where the patent was filed prior to the 1870 change in the law, the Court referred to the "nature of the invention".⁴¹

³⁹ *Long v. Rockwood*, 277 U.S. 142, 146 (1928)(McReynolds, J.)(quoting Chapter 230, Act July 8, 1870, 16 Stat. 201 (Rev. Stat. § 4884; section 40, Title 35, U. S. Code (35 USCA § 43; Comp. St. § 9428)).

⁴⁰ Janice M. Mueller, PATENT LAW 88 (5th ed. 2016)(footnote integrated into text in brackets).

⁴¹ Rubber-Coated Harness-Trimming, 97 U.S. (7 Otto) at 11 ("[The patentee] says: 'The nature of my invention consists in the employment of a metallic ring within a ring formed of artificial ivory, or similar materials for giving strength to the same, thereby producing a new article of manufacture,' &c.

[&]quot;A metallic ring within a ring of factitious ivory is the article to be produced, and that is the nature of the invention.

[&]quot;Nothing can be more specific than the summing up as to the nature of his invention by the patentee, when he says, 'What I claim and desire to secure by letters-patent is the ring for martingales, manufactured as set forth, with a metal ring enveloped in composition, as and for the purposes specified.' A metal ring enveloped in composition would seem to be the plain subject of the monopoly, the other language being merely illustrative of or supplemental to the

Early in the twentieth century the Court referred to the "nature of the invention" to consider the scope of protection a patentee should be awarded under the doctrine of equivalents.⁴²

3. New Definition of Infringement in 1952⁴³

As explained in the *Aro* case, the 1952 Patent Act provided an express statutory definition of infringement as 35 U.S.C.A. § 271(a).⁴⁴ Regarding prior law, the Court in *Aro* explained that:

"Although there was no statutory provision defining infringement prior to [the 1952 Patent Act], the definition [of infringement] adopted is consonant with the long-standing statutory prescription of the terms of the patent grant, which was contained in § 4884 of the Revised Statutes as follows:

"Every patent shall contain a short title or description of the invention or discovery, *correctly indicating its nature and design*, and a grant to the patentee * * of the exclusive right to make, use, and vend the invention or discovery throughout the United States * * *" (Emphasis supplied [by the Court].)

main idea."); see also Stow v. City of Chicago, 104 U.S. (14 Otto) 547 547 (1881) (quoting "nature of the invention" from patent filed before 1870 change in the law).

⁴² Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405, 414-15 (1908)(McKenna, J.)(quoting Miller v. Eagle Mfg. Co. 151 U. S. 186, 207 (1894)("The range of equivalents depends upon the extent and nature of the invention. If the invention is broad or primary in its character, the range of equivalents will be correspondingly broad, under the liberal construction which the courts give to such inventions.")(emphasis added).

⁴³ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:13, *Definition of Infringement in the 1952 Patent Act* (Thomson Reuters 2017).

⁴⁴ Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 350 n.5 (1961).

This provision is now contained without substantial change in 35 U.S.C. § 154, 35 U.S.C.A. § 154. ⁴⁵Quoting the words of the late Pasquale J. Federico, up through the eve of the effective date of the 1952 Patent Act, the statute required "a ... description of the invention ... correctly stating its nature and design." P. J. Federico, *Commentary on the New Patent Act* [1954], *reproduced at* 75 J. Pat. And Trademark Off. Soc'y 161, 201-02 (1993). But, the statutory basis for the "nature" and "design" disclosure requirement ceased with the effective date of the 1952 Patent Act: "The old statute [before the 1952 Patent Act] required 'a short title or description of the invention or discovery, correctly stating its nature and design'; this has been shortened to 'a short title of the invention' since the title is of no legal significance." *Id*.

D. "Nature", Phoenix Rebirth with a Changed Meaning⁴⁶

By the time of the 1952 Patent Act, it had already been more than eighty (80) years since the mandatory use of patent claims to define the scope of patent protection. There was no need for continued reference to "the nature of the invention".

Although the need to refer to the "nature of the invention" to define the scope of protection ceased with the mandatory usage of patent claims for this purpose, the "nature of the invention" has continued to the present day, reborn with a new meaning, as a metric for determining the scope of protection. This occurred long prior to the creation of the Federal Circuit.⁴⁷

⁴⁵ Aro, 365 U.S. at 350 n.5 (emphasis supplied in part by the Court and by this writer).

⁴⁶ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:14, *Nature*", *a Phoenix Rebirth with a New Meaning* (Thomson Reuters 2017).

⁴⁷ G. H. Packwood Mfg. Co. v. St. Louis Janitor Supply Co., 115 F.2d 958, 963 (8th Cir. 1940)("[T]he doctrine of equivalents is applied to other than primary or generic patents and that,

To be sure, members of the Federal Circuit in the early years had not forgotten the infringement context of the "nature of the invention".⁴⁸

Yet, by the 1990's, the original context of "nature of the invention" was seemingly lost, and the terminology was reborn with a new meaning. Whereas the original nineteenth century reference to the "nature of the invention" was focused upon the scope of protection for an invention, in its rebirth the "nature of the invention" now deals with issues of enablement under what is today 35 USC § 112(a).

while the range of equivalent depends upon the extent and *nature of the invention*, even a nongeneric or specific patent is entitled to some range of equivalents.")(emphasis added)

⁴⁸ Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 962 (Fed. Cir. 1987)(en banc)(Newman, J., commentary)(quoting Miller v. Eagle Manufacturing Co., 151 U.S. 186, 207 (1893))("The range of equivalents depends upon the extent and nature of the invention. If the invention is broad or primary in its character, the range of equivalents will be correspondingly broad, under the liberal construction which the courts give to such inventions.")(emphasis added); Texas Instruments, Inc. v. U.S. Int'l Trade Comm'n, 805 F.2d 1558, 1563 (Fed. Cir. 1986)(Newman, J.)(citing Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405, 414 (1908); Miller v. Eagle Manufacturing Co., 151 U.S. 186, 207 (1894)) ("It has long been recognized that the range of permissible equivalents depends upon the extent and *nature of the invention*, and may be more generously interpreted for a basic invention than for a less dramatic technological advance.")(emphasis added); Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc., 62 F.3d 1512, 1562 (Fed. Cir. 1995)(Nies, J., dissenting, joined by Archer, C.J.), subsequent proceedings sub nom Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S. 17 (1997) ("The question of scope is whether one of skill in the art would understand that a specific element of the claim is not the only means that may be used in the claimed invention. The answer depends on the *nature of the invention*, the claim language, the description of the invention in the specification, other claims in the patent, the arguments and amendments made during prosecution, the obviousness of the change, the prior art, the alleged infringer's own conduct, and any other circumstances from which notice that the literal words of the claim are not meant to control might be inferred.")(emphasis added)

The Federal Circuit has frequently spoken of the "nature of the invention" but has never defined what is meant by the terminology, even when this phase was used by the late Giles Sutherland Rich in *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562 (Fed. Cir. 1991)(Rich, J.), and *Malta v. Schulmerich Carillons, Inc.*, 952 F.2d 1320, 1326 (Fed. Cir. 1991)(Rich, J.). In the former case he stated that "[t]he CCPA's 'written description' cases often stressed the fact-specificity of the issue. See, e.g., *In re Wertheim*, 541 F.2d 257, 262 (CCPA 1976) ('The primary consideration is factual and depends on *the nature of the invention* and the amount of knowledge imparted to those skilled in the art by the disclosure')[]; ...[*In re DiLeone*, 436 F.2d 1404, 1405 (CCPA 1971)] ('What is needed to meet the description requirement will necessarily vary depending on the nature of the invention claimed').") *Vas-Cath*, 935 F.2d at 1562 (emphasis added).

In the latter case he said "[h]ow equivalency to a required limitation [to determine infringement] is met necessarily varies from case to case due to many variables such as ... the *nature of the invention*"). *Malta*, 952 F.2d at 1326 (emphasis added).

Sua sponte in the Wands case a panel of the Federal Circuit borrowed the term "nature of the invention" from a decision of the Patent Office to describe one of the criteria for determining whether a disclosure is enabling. In re Wands, 858 F.2d 731, 736 (Fed. Cir. 1988)(E. Smith, J.)(quoting In re Jackson, 217 USPQ 804, 807 (Bd.App.1982), citing Ansul Co. v. Uniroyal, Inc. [448 F.2d 872, 878–79(2d Cir.1971))("The determination of what constitutes undue experimentation in a given case requires the application of a standard of reasonableness, having due regard for the nature of the invention and the state of the art.") While the Ansul case does mention "nature" of the invention, "nature of the invention" is not in the opinion itself but rather merely in a headnote that is not part of the opinion.

Professors Mueller and Chisum explain the rebirth of "the nature of the invention" as a criterion for determining enablement:

"In the patent-obtaining context, the first paragraph of 35 U.S.C. § 112 requires that the patent applicant provide an enabling disclosure of how to make and use the invention she is claiming. Case law has interpreted this statutory requirement as allowing experimentation by an art worker who seeks to replicate the invention, so long as the degree of experimentation is not 'undue.' The Federal Circuit has recognized that the phrase 'without undue experimentation' is nonstatutory gloss added by the courts to the literal language of § 112, \P 1. In determining whether experimentation would be 'undue' in a particular case, the Federal Circuit applies a multifactored totality of the circumstances approach. In its foundational decision in this area, *In re Wands*, the court (adopting the analysis used by the USPTO Board in [*Ex parte Forman*, 230 U.S.P.Q. 546, 547 (B.P.A.I. 1986)),] declared that an 'undue experimentation' analysis should include the ***(4) the nature of the invention ***."

Professor Seymour explains the origins of the "Wands factors":

"The list [based on *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988)], commonly referred to as the Wands factors, found its roots in the Patent Office. Cf. *Ex parte Forman*, 230 U.S.P.Q. 546, 547 (B.P.A.I. 1986) ('The factors to be considered [in a determination of what constitutes undue experimentation] have been summarized as the quantity of experimentation necessary, the amount of direction or guidance presented, the presence or absence of working examples, the *nature of the invention*, the state of the prior art, the relative skill of those in that art, the predictability or unpredictability of the art and the breadth of the claims.' (citing *In re Rainer*, 347 F.2d 574 (C.C.P.A. 1965)).")⁵⁰

⁴⁹ Janice M. Mueller & Donald S. Chisum, *Enabling Patent Law's Inherent Anticipation Doctrine*, 45 Hous. L. Rev. 1101, 1144-45 (2008)(emphasis added; footnotes deleted)

⁵⁰ Sean B. Seymore, *The Teaching Function of Patents*, 85 Notre Dame L. Rev. 621, 652 n.160 (2010)(emphasis added).

Other opinions continued to cite the "nature of the invention" but without explaining what is meant by this terminology.⁵¹

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⁵¹ Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc., 62 F.3d 1512, 1562 (Fed. Cir. 1995)(Nies, J., dissenting), rev'd, 520 U.S. 17 (1997)("The question of scope [of protection] is whether one of skill in the art would understand that a specific element of the claim is not the only means that may be used in the claimed invention. The answer depends on the *nature of the* invention [and other factors].")(emphasis added); Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 962 (Fed. Cir. 1987)(en banc)(Newman, J., commentary)("[Under the doctrine of equivalents the range of equivalents depends upon the extent and nature of the invention.")(emphasis added); SmithKline Beecham Corp. v. Apotex Corp., 439 F.3d 1312, 1322 (Fed. Cir. 2006); (Newman, J., dissenting) ("It is not the law that process limitations are ignored in construing claims, whatever the nature of the invention.")(emphasis added); Young Dental Mfg. Co., Inc. v. Q3 Special Products, Inc., 112 F.3d 1137, 1144 (Fed. Cir. 1997) (Clevenger, J.)("The best mode requirement does not apply to 'production details.' ... [U]nder the rubric of production details, we have referred to what more properly are considered routine details. Routine details are details that are apparent to one of ordinary skill in the art. See Engel Indus., Inc. v. Lockformer Co., 946 F.2d 1528 1532 (Fed.Cir.1991). They are appropriately discussed separately from production details because routine details do relate to the *quality or nature of the* invention.")(emphasis added); EZ Dock Inc v. Schafer Systems Inc, 276 F.3d 1347, 1351 (Fed. Cir. 2002)(Rader, J.)(quoting Micro Chem., Inc. v. Great Plains Chem. Co., 103 F.3d 1538, 1544 (Fed. Cir. 1997))("[A]ll of the circumstances surrounding the sale or offer to sell, including the stage of development of the invention and the *nature of the invention*, must be considered and weighed against the policies underlying section 102(b)")(emphasis added); Lough v. Brunswick Corp., 103 F.3d 1517, 1518 (Fed. Cir. 1997)(Lourie, J., concurring in den. suggestion for reh'g en banc)("[Section 102(b) public use] encompasses underlying facts such as ... whether the nature of the invention was discernible by observation...")(emphasis added); NTP, Inc. v. Research in Motion, Ltd., 418 F.3d 1282, 1316 (Fed. Cir., 2005)(on reh'g)(Linn, J.)(quoting Minton v. Nat'l Ass'n of Sec. Dealers, Inc., 336 F.3d 1373, 1378 (Fed.Cir.2003) ("It is not correct that nothing in § 102(b) compels different treatment between an invention that is a tangible item and an invention that describes a series of steps in a process. The very nature of the invention may compel a difference.")(emphasis added); UMC Electronics Co. v. United States, 816 F.2d 647, 656 (Fed. Cir. 1987)(Nies, J.) ("All of the circumstances surrounding the sale or offer to sell, including ...the nature of the invention, must be considered and weighed against the policies underlying section 102(b).")(emphasis added); id. 816 F.2d at 657 ("[W]e conclude from ... the nature of the inventor's contribution to the art, that the claimed invention was on sale within the meaning of section 102(b).")(emphasis added); In re Wands, 858 F.2d 731, 737 (Fed. Cir. 1988)(Edward Smith, J.)(citing Ansul Co. v. Uniroyal, Inc., 448 F.2d 872, 878-79 (2d Cir.1971))("The determination of what constitutes undue experimentation [in the context of enablement] in a given case requires the application of a standard of reasonableness, having due regard for the *nature of the invention* and the state of the art.")(emphasis added).

After a generation of citations to "the nature of the invention" to deal with the issue of enablement under 35 USC § 112(a), little light has been shed on a new meaning for this term, but "the nature of the invention" continues to be discussed. Today, "nature of the invention" is routinely cited as one of the "Wands factors".⁵²

⁵² See, e.g., Elan Pharmaceuticals, Inc. v. Mayo Foundation for Medical Educ. and Research, 346 F.3d 1051-55 (Fed. Cir. 2003); Cephalon, Inc. v. Watson Pharmaceuticals, Inc., 707 F.3d 1330, 1336 (Fed. Cir. 2013); ALZA Corp. v. Andrx Pharmaceuticals, LLC, 603 F.3d 935, 940 (Fed. Cir. 2010); Cephalon, Inc. v. Watson Pharmaceuticals, Inc., 707 F.3d 1330, 1336 (Fed. Cir. 2013)(Wallach, J.)(citing "nature of the invention" as one of the "factors [which] may be considered when determining if a disclosure requires undue experimentation[.]"); see also Mark H. Hopkins, Has the Reasonable Experimentation Doctrine become Unreasonable?: Rethinking the Reasonable Experimentation Doctrine in Light off Automated Experimental Techniques, 2 J. Marshall Rev. Intell. Prop. L. 116, 123-24 (2002) (characterizing Wands as "[a] key case addressing the undue experimentation doctrine in the modern era..." where one of the factors is "the nature of the invention[.]"); Roy D. Gross, Harmonizing the Doctrines of Enablement and Obviousness in Patent Litigation, 12 U. Pitt. J. Tech. L. & Pol'y 1, 4-5 (2012) ("Determining whether an amount of experimentation amounts to undue experimentation is a factual inquiry and the factors for determining this analysis have been previously set forth by the Federal Circuit in *In re Wands*. Known as the Wands factors, these factors balance the following in order to determine the amount of experimentation needed in order to satisfy the enablement requirement: *** (4) the nature of the invention ***.")(emphasis added; footnotes omitted); Bernard Chao, Rethinking Enablement in the Predictable Arts: Fully Scoping the New Rule, 2009 Stan. Tech. L. Rev. 3, 115 (2009)(citing Wands on the issue of "predictability" relating to enablement including citation of "the nature of the invention"); J. Benjamin Bai, Enablement Issues Concerning Aggressively Broad Generic Claims, 7 Nw. J. Tech. & Intell. Prop. 1, 6 (2008)(citing "[t]he nature of the invention" as a factor as to what constitutes "undue experimentation" in the context of enablement)(footnotes omitted); Jeffrey K. Mills, Jason A. Fitzsimmons & Kevin Rodkey, Protecting Nanotechnology Inventions: Prosecuting in an Unpredictable World, 7 Nanotechnology L. & Bus. 223, 235-36 (2010)("The Wands test enumerates eight factors that are to be considered in determining whether experimentation is undue [including] *** the nature of the invention[.]")

E. Summary may Limit the Scope of Protection⁵³

Statements in the *Summary of the Invention* may also be used by a court to limit the scope of protection. This is explained in *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004)(Michel, J.):

"[The patentee] claims that a statement in the specification is not 'determinative of claim construction merely because it appears in the `Summary of the Invention' section.' Although a statement's location is not 'determinative,' the location can signal the likelihood that the statement will support a limiting definition of a claim term. Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term. See Digital Biometrics, Inc. v. Identix, Inc., 149 F.3d 1335, 1347 (Fed.Cir.1998) (relying on 'global comments made to distinguish the applicants' 'claimed invention' from the prior art' during the prosecution of the patent in construing a claim term). Statements that describe the invention as a whole are more likely to be found in certain sections of the specification, such as the Summary of the Invention. See Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1348 (Fed.Cir. 2004) ('Those statements, some of which are found in the 'Summary of the Invention' portion of the specification, are not limited to describing a preferred embodiment, but more broadly describe the overall inventions of all three patents.')[.]".

⁵³ This section is adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, §7:15, *Summary* may Limit the Scope of Protection (Thomson Reuters 2017).

IV. CUOZZO SPEED, THE RULES AND THE MANUAL

A. Rule 42.100(b)

Under the first sentence of Rule 42.100(b), as to a claim that will not expire until a final written decision is achieved, that "claim * * * shall be given its broadest reasonable construction in light of the specification of the patent in which it appears."

More completely, 37 CFR § 42.100(b) states that "[a] claim *** shall be given its broadest reasonable construction in light of the specification of the patent in which it appears." ⁵⁴

B. The Supreme Court Cuozzo Speed Case

The second *Question Presented* in *Cuozzo Speed Technologies* is framed as interpreting the PTO regulation that authorizes it to "construe a patent claim according to] its broadest reasonable construction *in light of* the specification of the patent in which it appears?"⁵⁵

More completely, Rule 42.100(b) reads as follows: "A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. A party may request a district court-type claim construction approach to be applied if a party certifies that the involved patent will expire within 18 months from the entry of the Notice of Filing Date Accorded to Petition. The request, accompanied by a party's certification, must be made in the form of a motion under § 42.20, within 30 days from the filing of the petition."

⁵⁵ Cuozzo Speed Technologies, LLC v. Lee, 136 S.Ct. 2131, 2136 (2016)("Does [35 USC § 316(a)(4)] authorize the Patent Office to issue a regulation stating that the agency, in inter partes review, 'shall [construe a patent claim according to] its broadest reasonable construction *in light of* the specification of the patent in which it appears'? 37 CFR § 42.100(b) (2015)."(emphasis added).

As to the second *Question Presented*, the *holding* in *Cuozzo Speed*Technologies is that the relevant rule does "authorize[] the Patent Office to issue the regulation." 56

Under the first sentence of Rule 42.100(b), as to a claim that will not expire until a final written decision is achieved, that "claim * * * shall be given its broadest reasonable construction in light of the specification of the patent in which it appears." Rule 42.100(b) was sustained by the Supreme Court in *Cuozzo Speed Technologies, LLC v. Lee,* 136 S.Ct. 2131 (2016)(Breyer, J.), *aff'g, In re Cuozzo Speed Techs., LLC,* 778 F.3d 1271, 1282 (Fed. Cir.2015):

The Leahy–Smith America Invents Act, 35 U.S.C. § 100 et seq., creates a process called "inter partes review." That review process allows a third party to ask the U.S. Patent and Trademark Office to reexamine the claims in an already-issued patent and to cancel any claim that the agency finds to be unpatentable in light of prior art. See § 102 (requiring "novel[ty]"); § 103 (disqualifying claims that are "obvious").

⁵⁶ *Id.* (""*** We ... conclude that [§ 316(a)(4)] authorizes the Patent Office to issue the regulation before us. See, *e.g.*, *United States v. Mead Corp.*, 533 U.S. 218, 229 (2001); *Chevron*, *U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842 (1984).")

⁵⁷ 37 CFR § 42.100(b)("A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. A party may request a district court-type claim construction approach to be applied if a party certifies that the involved patent will expire within 18 months from the entry of the Notice of Filing Date Accorded to Petition. The request, accompanied by a party's certification, must be made in the form of a motion under § 42.20, within 30 days from the filing of the petition.").

We consider two provisions of the Act. * * *

The second provision grants the Patent Office the authority to issue "regulations ... establishing and governing inter partes review under this chapter." § 316(a)(4).

Does this provision authorize the Patent Office to issue a regulation stating that the agency, in inter partes review, "shall [construe a patent claim according to] its broadest reasonable construction in light of the specification of the patent in which it appears"? 37 CFR § 42.100(b) (2015).

* * * We ... conclude that the second provision authorizes the Patent Office to issue the regulation before us. See, e.g., *United States v. Mead Corp.*, 533 U.S. 218, 229 (2001); *Chevron, U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842 (1984).

I A

* * *

If the examiner rejects a claim, the applicant can resubmit a narrowed (or otherwise modified) claim, which the examiner will consider anew, measuring the new claim against the same patent law requirements. If the examiner rejects the new claim, the inventor typically has yet another chance to respond with yet another amended claim. Ultimately, the Patent Office makes a final decision allowing or rejecting the application. The applicant may seek judicial review of any final rejection. See §§ 141(a), 145.

* * *

In 1999 and 2002, Congress enacted statutes that established another, similar procedure, known as "inter partes reexamination." Those statutes granted third parties greater opportunities to participate in the Patent Office's reexamination proceedings as well as in any appeal of a Patent Office decision. See, e.g., American Inventors Protection Act of 1999, § 297 et seq. (2006 ed.) (superseded).

* * *

The new statute provides a challenger with broader participation rights. It creates within the Patent Office a Patent Trial and Appeal Board (Board) composed of administrative patent judges, who are patent lawyers and former patent examiners, among others. § 6. That Board conducts the proceedings, reaches a conclusion, and sets forth its reasons. See ibid.

The statute sets forth time limits for completing this review. § 316(a)(11). It grants the Patent Office the authority to issue rules. § 316(a)(4). Like its predecessors, the statute authorizes judicial review of a "final written decision" canceling a patent claim. § 319. And, the statute says that the agency's initial decision "whether to institute an inter partes review" is "final and nonappealable." § 314(d); compare ibid. with §§ 312(a), (c) (2006 ed.) (repealed) (the "determination" that a petition for inter partes reexamination "raise[s]" "a substantial new question of patentability" is "final and non-appealable"), and § 303(c) (2012 ed.) (similar in respect to ex parte reexamination).

B

In 2002, Giuseppe A. Cuozzo applied for a patent covering a speedometer that will show a driver when he is driving above the speed limit. To understand the basic idea, think of the fact that a white speedometer needle will look red when it passes under a translucent piece of red glass or the equivalent (say, red cellophane). If you attach a piece of red glass or red cellophane to a speedometer beginning at 65 miles per hour, then, when the white needle passes that point, it will look red. If we attach the red glass to a plate that can itself rotate, if we attach the plate to the speedometer, if we connect the plate to a Global Positioning System (GPS) receiver, and if we enter onto a chip or a disk all the speed limits on all the Nation's roads, then the GPS can signal where the car is, the chip or disk can signal the speed limit at that place, and the plate can rotate to the right number on the speedometer. Thus, if the speed limit is 35 miles per hour, then the white speedometer needle will pass under the red plate at 35, not 65, and the driver will know if he is driving too fast.

In 2004, the Patent Office granted the patent. See U.S. Patent No. 6,778,074 (Cuozzo Patent). ***

C

Petitioner Cuozzo Speed Technologies, LLC (Cuozzo), now holds the rights to the Cuozzo Patent. In 2012, Garmin International, Inc., and Garmin USA, Inc., filed a petition seeking inter partes review of the Cuozzo Patent's 20 claims. Garmin backed up its request by stating, for example, that the invention described in claim 17 was obvious in light of three prior patents, the Aumayer, Evans, and Wendt patents. U.S. Patent No. 6,633,811; U.S. Patent No. 3,980,041; and U.S. Patent No. 2,711,153. Cf. *Goodyear Tire & Rubber Co. v. Ray–O–Vac Co.*, 321 U.S. 275, 280 (1944) (Black, J., dissenting) ("[S]omeone, somewhere, sometime, made th [is] discovery [but] I cannot agree that this patentee is that discoverer"). The Board agreed to reexamine claim 17, as well as claims 10 and 14. The Board recognized that Garmin had not expressly challenged claim 10 and claim 14 on the same obviousness ground. But, believing that "claim 17 depends on claim 14

which depends on claim 10," the Board reasoned that Garmin had "implicitly" challenged claims 10 and 14 on the basis of the same prior inventions, and it consequently decided to review all three claims together. App. to Pet. for Cert. 188a.

After proceedings before the Board, it concluded that claims 10, 14, and 17 of the Cuozzo Patent were obvious in light of the earlier patents to which Garmin had referred. The Board explained that the Aumayer patent "makes use of a GPS receiver to determine ... the applicable speed limit at that location for display," the Evans patent "describes a colored plate for indicating the speed limit," and the Wendt patent "describes us[ing] a rotatable pointer for indicating the applicable speed limit." Id., at 146a–147a.

II

* * *

[T]he legal dispute at issue is an ordinary dispute about the application of certain relevant patent statutes concerning the Patent Office's decision to institute inter partes review. Cuozzo points to a related statutory section, § 312, which says that petitions must be pleaded "with particularity." Those words, in its view, mean that the petition should have specifically said that claims 10 and 14 are also obvious in light of this same prior art. Garmin's petition, the Government replies, need not have mentioned claims 10 and 14 separately, for claims 10, 14, and 17 are all logically linked; the claims "rise and fall together," and a petition need not simply repeat the same argument expressly when it is so obviously implied. See 793 F.3d, at 1281. In our view, the "No Appeal" provision's language must, at the least, forbid an appeal that attacks a "determination ... whether to institute" review by raising this kind of legal question and little more. § 314(d).

Moreover, a contrary holding would undercut one important congressional objective, namely, giving the Patent Office significant power to revisit and revise earlier patent grants. See H.R. Rep., at 45, 48 (explaining that the statute seeks to "improve patent quality and restore confidence in the presumption of validity that comes with issued patents"); 157 Cong. Rec. 9778 (2011) (remarks of Rep. Goodlatte) (noting that inter partes review "screen[s] out bad patents while bolstering valid ones"). We doubt that Congress would have granted the Patent Office this authority, including, for example, the ability to continue proceedings even after the original petitioner settles and drops out, § 317(a), if it had thought that the agency's final decision could be unwound under some minor statutory technicality related to its preliminary decision to institute inter partes review.

Further, the existence of similar provisions in this, and related, patent statutes reinforces our conclusion. See § 319 (limiting appellate review to the "final written decision"); § 312(c) (2006 ed.) (repealed) (the "determination" that a petition for inter partes reexamination "raise[s]" a "substantial new question of patentability" is "final and non-appealable"); see also § 303(c) (2012 ed.); In re Hiniker Co., 150 F.3d 1362, 1367 (C.A.Fed.1998) ("Section 303 ... is directed toward the [Patent Office's] authority to institute a reexamination, and there is no provision granting us direct review of that decision").

* * *

Ш

Cuozzo ... argues that the Patent Office lacked the legal authority to issue its regulation requiring the agency, when conducting an inter partes review, to give a patent claim "its broadest reasonable construction in light of the specification of the patent in which it appears." 37 CFR § 42.100(b). Instead, Cuozzo contends that the Patent Office should, like the courts, give claims their "ordinary meaning ... as understood by a person of skill in the art." Phillips, 415 F.3d, at 1314.

The statute, however, contains a provision that grants the Patent Office authority to issue "regulations ... establishing and governing inter partes review under this chapter." 35 U.S.C. § 316(a)(4). The Court of Appeals held that this statute gives the Patent Office the legal authority to issue its broadest reasonable construction regulation. We agree.

A

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[T]he purpose of the proceeding is not quite the same as the purpose of district court litigation. The proceeding involves what used to be called a reexamination (and, as noted above, a cousin of inter partes review, ex parte reexamination, 35 U.S.C. § 302 et seq., still bears that name). The name and accompanying procedures suggest that the proceeding offers a second look at an earlier administrative grant of a patent. Although Congress changed the name from "reexamination" to "review," nothing convinces us that, in doing so, Congress wanted to change its basic purposes, namely, to reexamine an earlier agency decision. Thus, in addition to helping resolve concrete patent-related disputes among parties, inter partes review helps protect the public's "paramount interest in seeing that patent monopolies ... are kept within their legitimate scope." *Precision Instrument Mfg. Co. v. Automotive Maintenance Machinery Co.*, 324 U.S. 806, 816

(1945); see H.R. Rep., at 39–40 (Inter partes review is an "efficient system for challenging patents that should not have issued").

Finally, neither the statutory language, its purpose, or its history suggest that Congress considered what standard the agency should apply when reviewing a patent claim in inter partes review. Cuozzo contends that § 301(d), explaining that the Patent Office should "determine the proper meaning of a patent claim," reinforces its conclusion that the ordinary meaning standard should apply. But viewed against a background of language and practices indicating that Congress designed a hybrid proceeding, § 301(d)'s reference to the "proper meaning" of a claim is ambiguous. It leaves open the question of which claim construction standard is "proper."

The upshot is, whether we look at statutory language alone, or that language in context of the statute's purpose, we find an express delegation of rulemaking authority, a "gap" that rules might fill, and "ambiguity" in respect to the boundaries of that gap. *Mead Corp.*, 533 U.S., at 229; see *Chevron U.S.A. Inc.*, 467 U.S., at 843.. We consequently turn to the question whether the Patent Office's regulation is a reasonable exercise of its rulemaking authority.

We conclude that the regulation represents a reasonable exercise of the rulemaking authority that Congress delegated to the Patent Office. For one thing, construing a patent claim according to its broadest reasonable construction helps to protect the public. A reasonable, yet unlawfully broad claim might discourage the use of the invention by a member of the public. Because an examiner's (or reexaminer's) use of the broadest reasonable construction standard increases the possibility that the examiner will find the claim too broad (and deny it), use of that standard encourages the applicant to draft narrowly. This helps ensure precision while avoiding overly broad claims, and thereby helps prevent a patent from tying up too much knowledge, while helping members of the public draw useful information from the disclosed invention and better understand the lawful limits of the claim. See § 112(a); Nautilus, Inc. v. Biosig Instruments, Inc., 57 134 S.Ct. 2120, 2129 (2014); see also *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed.Cir.1984). For another, past practice supports the Patent Office's regulation. See 77 Fed.Reg. 48697 (2012). The Patent Office has used this standard for more than 100 years. 793 F.3d at 1276. It has applied that standard in proceedings, which, as here, resemble district court litigation. See Bamberger v. Cheruvu, 55 U.S.P.Q.2d 1523, 1527 (BPAI 1998) (broadest reasonable construction standard applies in interference proceedings); Brief for Generic Pharmaceutical Association et al. as Amici Curiae 7–16 (describing similarities between interference proceedings and

adjudicatory aspects of inter partes review); see also In re Yamamoto, supra, at 1571 (broadest reasonable construction standard applies in reexamination). It also applies that standard in proceedings that may be consolidated with a concurrent inter partes review. See 77 Fed.Reg. 48697–48698.

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*** Cuozzo says that the use of the broadest reasonable construction standard in inter partes review, together with use of an ordinary meaning standard in district court, may produce inconsistent results and cause added confusion. A district court may find a patent claim to be valid, and the agency may later cancel that claim in its own review. We recognize that that is so. This possibility, however, has long been present in our patent system, which provides different tracks—one in the Patent Office and one in the courts—for the review and adjudication of patent claims. As we have explained above, inter partes review imposes a different burden of proof on the challenger. These different evidentiary burdens mean that the possibility of inconsistent results is inherent to Congress' regulatory design. Cf. *One Lot Emerald Cut Stones v. United States*, 409 U.S. 232, 235–238 (1972) (per curiam).

Moreover, the Patent Office uses the broadest reasonable construction standard in other proceedings, including interference proceedings (described above), which may implicate patents that are later reviewed in district court. The statute gives the Patent Office the power to consolidate these other proceedings with inter partes review. To try to create uniformity of standards would consequently prove difficult. And we cannot find unreasonable the Patent Office's decision to prefer a degree of inconsistency in the standards used between the courts and the agency, rather than among agency proceedings. See 77 Fed.Reg. 48697–48698.

Finally, Cuozzo and its supporting amici offer various policy arguments in favor of the ordinary meaning standard. The Patent Office is legally free to accept or reject such policy arguments on the basis of its own reasoned analysis. Having concluded that the Patent Office's regulation, selecting the broadest reasonable construction standard, is reasonable in light of the rationales described above, we do not decide whether there is a better alternative as a policy matter. That is a question that Congress left to the particular expertise of the Patent Office.

* * *

As previously quoted in this section, Rule 42.100(b) of the *Rules of Practice* in *Patent Cases* states that where a claim will not expire during the pendency of a written decision, "[a] claim * * * shall be given its broadest reasonable construction in light of the specification of the patent in which it appears." ⁵⁸

C. What The Manual Says

The Manual explains that in reexamination "claims are given the broadest reasonable interpretation consistent with the specification[.]" The *Manual* explains that under the broadest reasonable interpretation standard, "the meaning given to a claim term must be consistent with the ordinary and customary meaning

⁵⁸ 37 CFR § 42.100(b)("A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. A party may request a district court-type claim construction approach to be applied if a party certifies that the involved patent will expire within 18 months from the entry of the Notice of Filing Date Accorded to Petition. The request, accompanied by a party's certification, must be made in the form of a motion under § 42.20, within 30 days from the filing of the petition.").

MPEP § 2258, *Scope of Ex Parte Reexamination* [R-07.2015](complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017)("During reexamination ordered under 35 U.S.C. 304, and also during reexamination ordered under 35 U.S.C. 257, claims are given the *broadest reasonable interpretation consistent with the specification* and limitations in the specification are not read into the claims (*In re Yamamoto*, 740 F.2d 1569 (Fed. Cir. 1984)). In a reexamination proceeding involving claims of an expired patent, claim construction pursuant to the principle set forth by the court in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, (Fed. Cir. 2005) (words of a claim "are generally given their ordinary and customary meaning" as understood by a person of ordinary skill in the art in question at the time of the invention) should be applied since the expired claim are not subject to amendment. See *Ex parte Papst-Motoren*, 1 USPQ2d 1655 (Bd. Pat. App. & Inter. 1986). ***")(emphasis added).

of the term (unless the term has been given a *special definition in the specification*) ***."⁶⁰

The broadest reasonable interpretation rule does not, however, permit a broad reading of claim terminology that is not consistent with the specification: "During patent examination, the pending claims must be 'given their *broadest* reasonable interpretation consistent with the specification." Thus, "[t]he [PTO] determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their *broadest reasonable* construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art." ⁶²

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⁶⁰ MPEP § 2111, Claim Interpretation; Broadest Reasonable Interpretation, Claims Must Be Given Their Broadest Reasonable Interpretation In Light Of The Specification [R-07.2015] (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017)("The broadest reasonable interpretation does not mean the broadest possible interpretation. Rather, the meaning given to a claim term must be consistent with the ordinary and customary meaning of the term (unless the term has been given a special definition in the specification), and must be consistent with the use of the claim term in the specification and drawings.")(emphasis added)

⁶¹ MPEP § 2111, Claim Interpretation; Broadest Reasonable Interpretation, Claims Must Be Given Their Broadest Reasonable Interpretation In Light Of The Specification [R-07.2015] (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017).

⁶² MPEP § 2111, Claim Interpretation; Broadest Reasonable Interpretation, Claims Must Be Given Their Broadest Reasonable Interpretation In Light Of The Specification [R-07.2015](quoting In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004)) (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017)(emphasis added).

The *Manual* cites the *Prater* case: "The court [in *In re Prater*, 1415 F.2d 1393 (CCPA 1969)(Baldwin, J.), explained that 'reading a claim in light of the specification, to thereby *interpret limitations explicitly recited in the claim*, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." ⁶³ But, What the *Manual* doesn't explain is that, particularly without a specific definition in the *Summary of the Invention*, the task for the specification writer is a difficult challenge. The quotation from the *Manual* omits the emphasized portion of the same paragraph in the *Prater* case:

"[R]eading a claim in the light of the specification,' to thereby interpret limitations explicitly recited in the claim, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim. This distinction is difficult to draw and is often confused by courts; but it is even more difficult for attorneys, attempting to work within the framework of the former, not to cross over into the latter.")⁶⁴

Without a specific definition of a claim feature in the *Summary of the Invention* the task to define the feature from the specification is more difficult, as exemplified by what is stated in the *Manual*:

⁶³ MPEP § 2111, *Claim Interpretation; Broadest Reasonable Interpretation, Claims Must Be Given Their Broadest Reasonable Interpretation In Light Of The Specification* [R-07.2015] (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017).

⁶⁴ In re Prater, 1415 F.2d 1393, 1395 (CCPA 1969)(Baldwin, J.)(emphasis added).

"[T]he broadest reasonable interpretation of the claims must be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Cir. 1999) (The Board's construction of the claim limitation 'restore hair growth' as requiring the hair to be returned to its original state was held to be an incorrect interpretation of the limitation. The court held that, consistent with applicant's disclosure and the disclosure of three patents from analogous arts using the same phrase to require only some increase in hair growth, one of ordinary skill would construe 'restore hair growth' to mean that the claimed method increases the amount of hair grown on the scalp, but does not necessarily produce a full head of hair.). Thus the focus of the inquiry regarding the meaning of a claim should be what would be reasonable from the perspective of one of ordinary skill in the art. In re Suitco Surface, Inc., 603 F.3d 1255, 1260 (Fed. Cir. 2010); *In re Buszard*, 504 F.3d 1364 (Fed. Cir. 2007). In *Buszard*, the claim was directed to a flame retardant composition comprising a flexible polyurethane foam reaction mixture. 504 F.3d at 1365. The Federal Circuit found that the Board's interpretation that equated a 'flexible' foam with a crushed 'rigid' foam was not reasonable. *Id.* at 1367. Persuasive argument was presented that persons experienced in the field of polyurethane foams know that a flexible mixture is different than a rigid foam mixture. Id. at 1366."65

The *Manual* reemphasizes the need for a definition of any term at the point of novelty of the claimed invention:

"* * During examination, a claim must be given its broadest reasonable interpretation consistent with the specification as it would be interpreted by one of ordinary skill in the art. * * *

"Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, *unless such meaning is inconsistent with the specification*. The plain meaning of a term means the ordinary and customary meaning given to the

⁶⁵ MPEP § 2111, Claim Interpretation; Broadest Reasonable Interpretation, Claims Must Be Given Their Broadest Reasonable Interpretation In Light Of The Specification [R-07.2015] (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017).

term by those of ordinary skill in the art at the time of the invention. The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art.

However, the best source for determining the meaning of a claim term is the specification - the greatest clarity is obtained when the specification serves as a glossary for the claim terms. The presumption that a term is given its ordinary and customary meaning may be rebutted by the applicant by clearly setting forth a different definition of the term in the specification. In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (the USPTO looks to the ordinary use of the claim terms taking into account definitions or other 'enlightenment' contained in the written description); But c.f. In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1369 (Fed. Cir. 2004) ('We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification.'); In re Bigio, 381 F.3d 1320, 1325 (Fed. Cir. 2004) (The claims at issue were drawn to a 'hair brush.' The Court upheld the Board's refusal to import from the specification a limitation that would apply the term only to hairbrushes for the scalp. '[T]his court counsels the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages. Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.'). When the specification sets a clear path to the claim language, the scope of the claims is more easily determined and the public notice function of the claims is best served. ***,166

⁶⁶ MPEP § 2173.01, *Interpreting the Claims*, § I, *Broadest Reasonable Interpretation* [R-07.2015] (complete through Ninth Edition, November 2015); search at PTO website, Nov. 22, 2017)(emphasis added).

V. DIFFICULTY TO DETERMINE CLAIM SCOPE

A. Definitional Attempts without the Summary of the Invention

Attempts to clarify the scope of protection where there is no relevant *Summary of the Invention* have been difficult, as explained in the *Manual*:

"The focus of the inquiry regarding the meaning of a claim should be what would be reasonable from the perspective of one of ordinary skill in the art. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010); *In re Buszard*, 504 F.3d 1364 (Fed. Cir. 2007). In *Buszard*, the claim was directed to a flame retardant composition comprising a flexible polyurethane foam reaction mixture. *Buszard*, 504 F.3d at 1365,. The Federal Circuit found that the Board's interpretation that equated a 'flexible' foam with a crushed 'rigid' foam was not reasonable. *Id.* at 1367. Persuasive argument was presented that persons experienced in the field of polyurethane foams know that a flexible mixture is different than a rigid foam mixture. *Id.* at 1366. See MPEP § 2111 for a full discussion of broadest reasonable interpretation.

"Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification. The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention. The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art. However, the best source for determining the meaning of a claim term is the specification - the greatest clarity is obtained when the specification serves as a glossary for the claim terms. The presumption that a term is given its ordinary and customary meaning may be rebutted by the applicant by clearly setting forth a different definition of the term in the specification. In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (the USPTO looks to the ordinary

use of the claim terms taking into account definitions or other 'enlightenment' contained in the written description); But c.f. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004) ('We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification.'); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) (The claims at issue were drawn to a 'hair brush.' The Court upheld the Board's refusal to import from the specification a limitation that would apply the term only to hairbrushes for the scalp. '[T]his court counsels the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages. Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.'). When the specification sets a clear path to the claim language, the scope of the claims is more easily determined and the public notice function of the claims is best served. *****

B. Absence of a Definitional Section

That the attempts to clarify the situation in the *Manual* are less than satisfying is amplified by the additional treatment of the subject:

"The focus of the inquiry regarding the meaning of a claim should be what would be reasonable from the perspective of one of ordinary skill in the art. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010); *In re Buszard*, 504 F.3d 1364 (Fed. Cir. 2007). In *Buszard*, the claim was directed to a flame retardant composition comprising a flexible polyurethane foam reaction mixture. *Buszard*, 504 F.3d at 1365,. The Federal Circuit found that the Board's interpretation that equated a 'flexible' foam with a crushed 'rigid' foam was not reasonable. *Id.* at

⁶⁷ MPEP § 2173.01, *Interpreting the Claims*, § I, . *Broadest Reasonable Interpretation* [R-07.2015] (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017)(emphasis added),

1367. Persuasive argument was presented that persons experienced in the field of polyurethane foams know that a flexible mixture is different than a rigid foam mixture. *Id.* at 1366. See MPEP § 2111 for a full discussion of broadest reasonable interpretation.

"Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification. The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention. The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art. However, the best source for determining the meaning of a claim term is the specification - the greatest clarity is obtained when the specification serves as a glossary for the claim terms. The presumption that a term is given its ordinary and customary meaning may be rebutted by the applicant by clearly setting forth a different definition of the term in the specification. In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (the USPTO looks to the ordinary use of the claim terms taking into account definitions or other 'enlightenment' contained in the written description); But c.f. In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1369 (Fed. Cir. 2004) ('We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification.'); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) (The claims at issue were drawn to a 'hair brush.' The Court upheld the Board's refusal to import from the specification a limitation that would apply the term only to hairbrushes for the scalp.

'[T]his court counsels the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages. Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.'). When the specification sets a clear path to the claim language, the scope of the claims is more easily determined and the public notice function of the claims is best served. ***',68

C. Confusion, What the Manual Says

The difficulty with attempting to interpret claims *without* a definition in the *Summary of the Invention* is further explained in the following discussion in the *Manual*:

Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, *unless such meaning is inconsistent with the specification*. The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention. The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art. However, the best source for determining the meaning of a claim term is the specification – *the greatest clarity is obtained when the specification serves* as a glossary for the claim terms.

⁶⁸ MPEP § 2173.01, *Interpreting the Claims*, § I, . *Broadest Reasonable Interpretation* [R-07.2015] (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017).

The words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989) (discussed below); *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372 (Fed. Cir. 2004) (Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. Thus, "heating the resulting batter-coated dough to a temperature in the range of about 400°F to 850°F" required heating the dough, rather than the air inside an oven, to the specified temperature.).

The presumption that a term is given its ordinary and customary meaning may be rebutted by the applicant by clearly setting forth a different definition of the term in the specification. In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (the USPTO looks to the ordinary use of the claim terms taking into account definitions or other "enlightenment" contained in the written description); But c.f. In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1369 (Fed. Cir. 2004) ("We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification."). When the specification sets a clear path to the claim language, the scope of the claims is more easily determined and the public notice function of the claims is best served.

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⁶⁹ MPEP § 2111.01, *Plain Meaning*, § I, *The Words of a Claim must be given heir "Plain Meaning" Unless such Meaning is Inconsistent with the Specification* [R-07.2015] (complete through Ninth Edition, November 2015); search at PTO website, Nov. 22, 2017)(emphasis added).

D. Applicant as His Own "Lexicographer"

As explained in the *Phillip* case, "the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." Thus, "[t]o act as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning' and must 'clearly express an intent to redefine the term."

Antoher downside of failing to provide a definition for a claim term may occur where that term has been widely used in the prior art but, with multiple meanings for that term or where, over time, the meaning in the art has shifted away from the standard meaning known to the applicant. Here, it is important that the specification provide a definition for the term. As pointed out in the *Manual*, "when there is more than one meaning for a term, it is incumbent upon applicant to make clear which meaning is being relied upon to claim the invention. Until the meaning of a term or phrase used in a claim is clear, a rejection under 35 U.S.C. 112(b) ... is appropriate. It is appropriate to compare the meaning of terms given in

⁷⁰ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005)(en banc)(Bryson, J.)(citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed.Cir. 2002)).

⁷¹ Hill-Rom Services, Inc. v. Stryker Corp., 755 F.3d 1367, 1371 (Fed. Cir. 2014)(Moore, J.)(dictum)(quoting Thorner v. Sony Computer Entm't Am. LLC, 669 F.3d 1362, 1365 (Fed.Cir.2012)).

technical dictionaries in order to ascertain the accepted meaning of a term in the art."⁷²

A further negative consequence in failing to provide a definition for a claim term may occur where that term has been widely used in the prior art but, with multiple meanings for that term or where, over time, the meaning in the art has shifted away from the standard meaning known to the applicant. Here, it is important that the specification provide a definition for the term. As pointed out in the *Manual*, "when there is more than one meaning for a term, it is incumbent upon applicant to make clear which meaning is being relied upon to claim the invention. Until the meaning of a term or phrase used in a claim is clear, a rejection under 35 U.S.C. 112(b) ... is appropriate. It is appropriate to compare the meaning of terms given in technical dictionaries in order to ascertain the accepted meaning of a term in the art."

Case law has long at least implicitly recognized the difficulties with using "dictionary language" to define what is new at the cutting edge of technology and long taken the view that the patent applicant often may need to be his "own lexicographer. Thus, since the early twentieth century there has been "frequent[] and consistent[] recogni[tion of] the patentee's right to be his own lexicographer, regardless of the ordinary or the technical meaning of [claim] words[.]"⁷⁴ Justice

⁷² MPEP § 2173.05(a), New Terminology (R-07)(2015), § III, Terms Used Contrary to their Ordinary Meaning must be Clearly Redefined in the Written Description (citing In re Barr, 444 F.2d 588 (CCPA 1971). See also MPEP § 2111.01.)

⁷³ MPEP § 2173.05(a), New Terminology (R-07)(2015), § III, Terms Used Contrary to their Ordinary Meaning must be Clearly Redefined in the Written Description (citing In re Barr, 444 F.2d 588 (CCPA 1971). See also MPEP § 2111.01.)

⁷⁴ Advance Rumley Co. v. John Lauson Mfg. Co., 275 F. 249, 250 (7th Cir. 1921)(Evans, J.)

Ginsburg in her opinion in the *Nautilus* case quotes from the Federal Circuit that "[i]t is a well-established axiom in patent law that a patentee is free to be his or her own lexicographer..." Immediately prior to this quotation she points out that:

[A] patent must be precise enough to afford clear notice of what is claimed, thereby "'appris[ing] the public of what is still open to them.' "Markman [v. Westview Instruments, Inc., 517 U.S. 370, 373 (1996)] (quoting McClain v. Ortmayer, 141 U.S. 419, 424 (1891)). [See also United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236 (1942) ("The statutory requirement of particularity and distinctness in claims is met only when they clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise."); General Elec. Co. v. Wabash Appliance Corp., 304 U.S. 364, 369 (1938) ("The limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public.").]

Otherwise there would be "[a] zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims." *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942). And *absent a meaningful definiteness check, we are told, patent applicants face powerful incentives to inject ambiguity into their claims*. See Brief for Petitioner 30–32 (citing patent treatises and drafting guides). See also Federal Trade Commission, The Evolving IP Marketplace: Aligning Patent Notice and Remedies With Competition 85 (2011) (quoting testimony that patent system fosters "an incentive to be as vague and ambiguous as you can with your claims" and "defer clarity at all costs"). [Online at http://www.ftc. gov/sites/default/files/documents/reports/evolving-ip-marketplace-aligning-patent-notice-and-remedies-competition-report-federal-trade/110307 patentreport.pdf (as visited May 30, 2014, and available in Clerk of Court's case file).] Eliminating that temptation is in order, and "*the patent drafter*

⁷⁵ Nautilus, Inc. v. Biosig Instruments, Inc., 134 S.Ct. 2120, 2129 (2014)(quoting Hormone Research Foundation, Inc. v. Genentech, Inc., 904 F.2d 1558, 1563 (Fed. Cir. 1990)).

is in the best position to resolve the ambiguity in ... patent claims." Halliburton Energy Servs., Inc. v. M–I LLC, 514 F.3d 1244, 1255 (Fed. Cir. 2008).⁷⁶

The freedom to choose claim language as "lexicographer" is a double edged sword:

"[A]pplicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as any special meaning assigned to a term is clearly set forth in the specification. See MPEP § 2111.01. Applicant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in *In re Swinehart*, 439 F.2d 210 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought."

A further *sub silentio* suggestion in the *Manual* for an explicit definition of claim terminology explains that:

The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art. However, the best source for determining the meaning of a claim term is the specification – the greatest clarity is obtained when the specification serves as a glossary for the claim terms. See, e.g., In re Abbott Diabetes Care Inc., 696 F.3d 1142, 1149-50, 104 USPQ2d 1337, 1342-43 (Fed. Cir. 2012) (construing the term "electrochemical sensor" as "devoid of external connection cables or wires to connect to a sensor control unit" to be consistent with "the language of the claims and the specification"); In re Suitco Surface, Inc., 603 F.3d 1255, 1260-61, 94 USPQ2d 1640, 1644 (Fed. Cir. 2010) (construing the term "material for finishing the top surface of the floor" to mean "a clear, uniform layer on the top surface of a floor that is the final treatment or coating of a surface" to be consistent

⁷⁶ Nautilus, 134 S.Ct. at 2129 (emphasis added; footnotes integrated into text in brackets).

⁷⁷ MPEP § 2173.01, *Interpreting the Claim* [R-07.2015] (complete through Ninth Edition, November 2015; search at PTO website, Nov. 22, 2017).

with "the express language of the claim and the specification"); *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1583, 39 USPQ2d 1573, 1577 (Fed. Cir. 1996) (construing the term "solder reflow temperature" to mean "peak reflow temperature" of solder rather than the "liquidus temperature" of solder in order to remain consistent with the specification).

* * * [W]hen the specification is clear about the scope and content of a claim term, there is no need to turn to extrinsic evidence for claim interpretation. *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326-28 (Fed. Cir. 2013) (holding that "continuous microtextured skin layer over substantially the entire laminate" was clearly defined in the written description, and therefore, there was no need to turn to extrinsic evidence to construe the claim). ⁷⁸

The importance of providing "a special definition of a claim term in the specification" is explained in the *Manual*.

The only exceptions to giving the words in a claim their ordinary and customary meaning in the art are (1) when the applicant acts as his own lexicographer; and (2) when the applicant disavows or disclaims the full scope of a claim term in the specification. To act as his own lexicographer, the applicant must clearly set forth a special definition of a claim term in the specification that differs from the plain and ordinary meaning it would otherwise possess. The specification may also include an intentional disclaimer, or disavowal, of claim scope. In both of these cases, "the inventor's intention, as expressed in the specification, is regarded as dispositive." Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc). See also Starhome GmbH v. AT&T Mobility LLC, 743 F.3d 849, 857, 109 USPQ2d 1885, 1890-91 (Fed. Cir. 2014) (holding that the term "gateway" should be given its ordinary and customary meaning of "a connection" between different networks" because nothing in the specification indicated a clear intent to depart from that ordinary meaning); Thorner v. Sony Computer Entm't Am. LLC, 669 F.3d 1362, 1367-68, 101 USPQ2d 1457, 1460 (Fed. Cir. 2012) (The asserted claims of the patent were directed to a tactile feedback system for video game controllers comprising a flexible pad with a plurality of actuators "attached

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⁷⁸ MPEP § 2111.01, § III, "Plain Meaning" Refers to the Ordinary and Customary Meaning Given to the Term by those of Ordinary Skill in The Art [R-07.2015] (complete through Ninth Edition, November 2015); search at PTO website, Nov. 22, 2017)(emphasis added).

to said pad." The court held that the claims were not limited to actuators attached to the external surface of the pad, even though the specification used the word "attached" when describing embodiments affixed to the external surface of the pad but the word "embedded" when describing embodiments affixed to the internal surface of the pad. The court explained that the plain and ordinary meaning of "attached" includes both external and internal attachments. Further, there is no clear and explicit statement in the specification to redefine "attached" or disavow the full scope of the term.) ⁷⁹

E. Definitional Limitations in the Summary

It is important that the *Summary of the Invention* be as concise as possible, focusing upon the claim wording coupled with definitional statements for a limitation at the point of novelty that preempt an otherwise "broadest reasonable interpretation" of that limitation.

Thus, for a limitation at the point of novelty, one could say: "the element 'x' is exemplified by species A, B and C, and is to be *strictly construed* to the wording of the statement of element 'x' in this paragraph."

Other limitations *not* at the point of novelty may not deserve a narrow interpretation, so there is reason *not* to provide a tight interpretation of such other limitations. The following is an example of a *non-limiting* definition: "the element 'x' is exemplified by species A, B and C; the species A, B and C are

⁷⁹ MPEP § 2111.01, § IV, *Applicant May be Own Lexicographer and/or May Disavow Claim Scope*[R-07.2015] (complete through Ninth Edition, November 2015); search at PTO website, Nov. 22, 2017)(emphasis added).

merely exemplifications of the element "x" which is to be construed according to what it means to a worker skilled in the art."

F. Tightly Crafted, Segregated Summary

For most cases the *Summary of the Invention* should consist entirely of a repetition of the claimed features coupled with a closed definition at the point of novelty to avoid an otherwise "broadest reasonable interpretation" of the claimed feature.

In a chemical case to new products, it is also useful to have a generic statement as to the broadest definition of the invention (parroting the language of claim 1) coupled with a statement of utility, including at least one specific utility application to all the compounds as defined by the generic representation paralleling the wording of claim 1.

To make sure that the *Summary of the Invention* is seen as a discrete section of the specification, this section should be headed by a centered, bold title:

SUMMARY OF THE INVENTION

and followed by the title of the following section, e.g.,

DETAILED DESCRIPTION OF THE INVENTION.

G. Mitigating Conflicts with the Detailed Description

There are many reasons that the patent draftsman who wishes to control the interpretation of the patent should provide a *concise* statement of the invention in the *Summary of the Invention*, complete with a definition of any limitation open to interpretation at the point of novelty. This means that the *Summary of the Invention* should be *concise* and *segregated* from the *Detailed Description of the Invention*. In a lengthy patent specification with many examples, there are bound to be what an opponent will characterize as conflicting statements. By including only the necessary definitional material in the specification (as well as utility information for claimed novel compounds), the chance for ambiguities in claim construction will be mitigated.

H. Post-Filing Date Definitions of the Invention

As explained elsewhere, "[t]he patent applicant *without* a definition of claim terminology may well have to rely upon a "definition by implication", an always second best approach where it is too late to amend the specification because of a concern about "new matter" if a new definition is added to define a term in the claims. Thus, while it is always the better position to be able to refer to a definition for claim terminology in the *Summary of the Invention*, once the application has been filed it may well represent proscribed 'new matter' to add a definition to the *Summary of the Invention*.

"Without a definition in the specification as filed, one may be forced to the position of reliance upon a 'definition by implication' in the specification. As explained in the *Manual*: 'In some cases, the meaning of a particular claim term

may be defined by implication, that is, according to the usage of the term in the context in the specification.' MPEP § 2111.01, *Plain Meaning* [R-07.2015], § IV, *Applicant may be Own Lexicographer and/or May Disavow Claim Scope*, § A, *Lexicography* (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320-21 (Fed. Cir. 2005) (en banc); *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996))."80

The failure to provide a *specific* definition of a critical claim limitation has also been basis to reach a conclusion of invalidity of the claim, as explained in the opinion by Judge Gaudette in her opinion in the *Murray* case:

The Federal Circuit has interpreted the term 'integrally formed' in an apparatus claim as a structural limitation. *See In re Morris*, 127 F.3d 1048, 1055-57 (Fed. Cir. 1997). In *In re Morris*, the court noted that the CCPA 'had on several prior occasions interpreted the term 'integral' to cover more tha[n] a unitary construction' where *the record did not provide a clear basis for limiting the term to a one piece construction*, 127 F.3d at 1055-56 (citations omitted), and likewise declined to interpret the phrase 'integrally formed' as limited to a single piece, inseparable structure:

'The problem in this case is that the appellants failed to make their intended meaning explicitly clear. Even though the appellants implore us to interpret the claims in light of the specification, *the specification fails to set forth the definition sought by the appellants*. Nowhere in the technical description of the invention does the application use or define the phrase 'integrally formed.' The phrase briefly appears in the 'Summary of the Invention' and again in a description of the 'advantages of the present invention.' In neither case is a drawing referenced or a precise definition given.'

⁸⁰ Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, § 19:2, *Definitions in the Specification as Filed* (Thomson Reuters 2017).

127 F.3d at 1056."81

VII. CHALLENGE TO PROVIDE A PRECISE DEFINITION

The need to "clearly set[] forth a definition of the term that is different from its ordinary and customary meaning(s) in the specification" is explained in the *Manual*:

An applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by *clearly setting forth a definition of the term that is different from its ordinary and customary meaning(s) in the specification* at the time of filing. See *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (holding that an inventor may define specific terms used to describe invention, but must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "set out his uncommon definition in some manner within the patent disclosure' so as to give one of ordinary skill in the art notice of the change" in meaning) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387-88, 21 USPQ2d 1383, 1386 (Fed. Cir. 1992)).

Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a "lexicographic vacuum, but in the context of the specification and drawings"). Thus, if a claim term is used in its ordinary and customary meaning throughout the specification, and the written description clearly indicates its meaning, then the term in the claim has that meaning. Old Town Canoe Co. v. Confluence Holdings Corp., 448 F.3d 1309, 1317 (Fed. Cir. 2006) (The court held that "completion of coalescence" must be given its ordinary and customary meaning of reaching the end of coalescence. The court explained that even though coalescence could theoretically be "completed" by halting the molding process earlier, the specification clearly intended that completion of coalescence occurs only after the molding process reaches its optimum stage.)

⁸¹ Ex parte Murray, 2010 WL 3658008, slip op. at 4, (Bd.Pat.App. & Interf. 2010)(Gaudette, APJ)(emphasis added; footnotes deleted).

However, it is important to note that any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." Multiform Desiccants Inc. v. Medzam Ltd., 133 F.3d 1473, 1477 (Fed. Cir. 1998). See also Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1357 (Fed. Cir. 1999) and MPEP § 2173.05(a).

In some cases, the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in the context in the specification. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320-21 (Fed. Cir. 2005) (en banc); Vitronics Corp. v. Conceptronic Inc., 90 F.3d 1576, 1583 (Fed. Cir. 1996). But where the specification is ambiguous as to whether the inventor used claim terms inconsistent with their ordinary meaning, the ordinary meaning will apply. Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1370 (Fed. Cir. 2005) (The Federal Circuit reversed the district court's construction of the claim term "about" as "exactly." The appellate court explained that a passage in the specification the district court relied upon for the definition of "about" was too ambiguous to redefine "about" to mean "exactly" in clear enough terms. The appellate court held that "about" should instead be given its plain and ordinary meaning of "approximately."). 82

In addition, there may also be a "disavowal" of the scope of protection.

Applicant may also rebut the presumption of plain meaning by clearly disavowing the full scope of the claim term in the specification. *Disavowal, or disclaimer of claim scope, is only considered when it is clear and unmistakable*. See *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed.Cir.2001) ("Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question."); see also *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1365-67 (Fed. Cir. 2004) (refusing the limit claim term "user computer" to only "single-user computers" even though "some of the language of the specification,

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⁸² MPEP § 2111.01, § IV-A, *Lexicography* [R-07.2015] (complete through Ninth Edition, November 2015); search at PTO website, Nov. 22, 2017)(emphasis added).

when viewed in isolation, might lead a reader to conclude that the term . . . is meant to refer to a computer that serves only a single user, the specification as a whole suggests a construction that is not so narrow"). But, in some cases, disavowal of a broader claim scope may be made by implication, such as where the specification contains only disparaging remarks with respect to a feature and every embodiment in the specification excludes that feature. *In re Abbott Diabetes Care Inc.*, 696 F.3d 1142, 1149-50 (Fed. Cir. 2012) (holding that the broadest reasonable interpretation of the claim term "electrochemical sensor" does not include a sensor having "external connection cables or wires" because the specification "repeatedly, consistently, and exclusively depict[s] an electrochemical sensor without external cables or wires while simultaneously disparaging sensors with external cables or wires"). If the examiner believes that the broadest reasonable interpretation of a claim is narrower than what the words of the claim otherwise suggest as the result of implicit disavowal in the specification, then the examiner should make his or her interpretation clear on the record. 83

⁸³ MPEP § 2111.01, § IV-B, *Disavowal* [R-07.2015] (complete through Ninth Edition, November 2015); search at PTO website, Nov. 22, 2017)(emphasis added).

VIII. MANUAL GUIDANCE VEL NON

Clear, concise guidance from the Office is lacking, as manifested by the *Manual of Patent Examining Procedure* which provides the following guidance as set particularly identified below in bold italics:

MPEP § 2111. CLAIM INTERPRETATION; BROADEST REASONABLE INTERPRETATION^[*]

CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION IN LIGHT OF THE SPECIFICATION

During patent examination, the pending claims must be "given their *broadest* reasonable interpretation consistent with the specification." The Federal Circuit's en banc decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) expressly recognized that the USPTO employs the "broadest reasonable interpretation" standard:

The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Indeed, the rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." 37 CFR 1.75(d)(1).

See also *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1259 (Fed. Cir. 2010); *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000).

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^[*]MPEP § 2111, *Claim Interpretation*; *Broadest Reasonable Interpretation* [R-07.2015](downloaded November 20, 2017)(emphasis added).

Patented claims are not given the *broadest reasonable interpretation* during court proceedings involving infringement and validity, and can be interpreted based on a fully developed prosecution record. In contrast, an examiner must construe claim terms in the broadest reasonable manner during prosecution as is reasonably allowed in an effort to establish a clear record of what applicant intends to claim. Thus, the Office does not interpret claims in the same manner as the courts. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

Because applicant has the opportunity to amend the claims during prosecution, giving a claim its *broadest reasonable interpretation* will reduce the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re* Yamamoto, 740 F.2d 1569, 1571 (Fed. Cir. 1984); In re Zletz, 893 F.2d 319, 321 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow."); In re Prater, 415 F.2d 1393, 1404-05 (CCPA 1969) (Claim 9 was directed to a process of analyzing data generated by mass spectrographic analysis of a gas. The process comprised selecting the data to be analyzed by subjecting the data to a mathematical manipulation. The examiner made rejections under 35 U.S.C. 101 and 35 U.S.C. 102. In the 35 U.S.C. 102 rejection, the examiner explained that the claim was anticipated by a mental process augmented by pencil and paper markings. The court agreed that the claim was not limited to using a machine to carry out the process since the claim did not explicitly set forth the machine. The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). See also *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever

enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification.").

The broadest reasonable interpretation does not mean the broadest possible interpretation. Rather, the meaning given to a claim term must be consistent with the ordinary and customary meaning of the term (unless the term has been given a special definition in the specification), and must be consistent with the use of the claim term in the specification and drawings. Further, the broadest reasonable interpretation of the claims must be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359 (Fed. Cir. 1999) (The Board's construction of the claim limitation "restore hair growth" as requiring the hair to be returned to its original state was held to be an incorrect interpretation of the limitation. The court held that, consistent with applicant's disclosure and the disclosure of three patents from analogous arts using the same phrase to require only some increase in hair growth, one of ordinary skill would construe "restore hair growth" to mean that the claimed method increases the amount of hair grown on the scalp, but does not necessarily produce a full head of hair.). Thus the focus of the inquiry regarding the meaning of a claim should be what would be reasonable from the perspective of one of ordinary skill in the art. In re Suitco Surface, Inc., 603 F.3d 1255, 1260 (Fed. Cir. 2010); In re Buszard, 504 F.3d 1364 (Fed. Cir. 2007). In Buszard, the claim was directed to a flame retardant composition comprising a flexible polyurethane foam reaction mixture. 504 F.3d at 1365. The Federal Circuit found that the Board's interpretation that equated a "flexible" foam with a crushed "rigid" foam was not reasonable. Id. at 1367. Persuasive argument was presented that persons experienced in the field of polyurethane foams know that a flexible mixture is different than a rigid foam mixture. Id. at 1366. * * *

MPEP § 2111.11, PLAIN MEANING[**]

I. THE WORDS OF A CLAIM MUST BE GIVEN THEIR "PLAIN MEANING" UNLESS SUCH MEANING IS INCONSISTENT WITH THE SPECIFICATION

Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification. The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention. The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art. However, the best source for determining the meaning of a claim term is the specification - the greatest clarity is obtained when the specification serves as a glossary for the claim terms. The words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. In re Zletz, 893 F.2d 319, 321 (Fed. Cir. 1989) (discussed below); Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372 (Fed. Cir. 2004) (Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. Thus, "'heating the resulting batter-coated dough to a temperature in the range of about 400°F to 850°F" required heating the dough, rather than the air inside an oven, to the specified temperature.).

The presumption that a term is given its ordinary and customary meaning may be rebutted by the applicant by clearly setting forth a different definition of the term in the specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (the USPTO looks to the ordinary use of the claim terms taking into account definitions or other "enlightenment" contained in the written description); *But c.f. In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004) ("We have cautioned against reading limitations into a claim from the preferred embodiment

^[**]MPEP § 2111.11, *Plain Meaning* [R-07.2015](downloaded November 20, 2017)(MPEP Editor Note: This MPEP section is applicable to applications subject to the first inventor to file (FITF) provisions of the AIA except that the relevant date is the "effective filing date" of the claimed invention instead of the "'time of the invention," which is only applicable to applications subject to pre-AIA 35 U.S.C. 102. See 35 U.S.C. 100 (note) and MPEP § 2150 et seq.]

described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification."). When the specification sets a clear path to the claim language, the scope of the claims is more easily determined and the public notice function of the claims is best served.

II. IT IS IMPROPER TO IMPORT CLAIM LIMITATIONS FROM THE SPECIFICATION

"Though understanding the claim language may be aided by explanations contained in the written description, it is important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment." Superguide Corp. v. DirecTV Enterprises, Inc., 358 F.3d 870, 875 (Fed. Cir. 2004). See also Liebel-Flarsheim Co. v. Medrad Inc., 358 F.3d 898, 906 (Fed. Cir. 2004) (discussing recent cases wherein the court expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment); E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369 (Fed. Cir. 2003) ("Interpretation of descriptive statements in a patent's written description is a difficult task, as an inherent tension exists as to whether a statement is a clear lexicographic definition or a description of a preferred embodiment. The problem is to interpret claims 'in view of the specification' without unnecessarily importing limitations from the specification into the claims."); Altiris Inc. v. Symantec Corp., 318 F.3d 1363, 1371 (Fed. Cir. 2003) (Although the specification discussed only a single embodiment, the court held that it was improper to read a specific order of steps into method claims where, as a matter of logic or grammar, the language of the method claims did not impose a specific order on the performance of the method steps, and the specification did not directly or implicitly require a particular order). See also subsection IV., below. When an element is claimed using language falling under the scope of 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, 6th paragraph (often broadly referred to as means- (or step-) plus- function language), the specification must be consulted to determine the structure, material, or acts corresponding to the function recited in the claim, and the claimed element is construed as limited to the corresponding

structure, material, or acts described in the specification and equivalents thereof. *In re Donaldson*, 16 F.3d 1189 (Fed. Cir. 1994) (see MPEP § 2181 – MPEP § 2186). In *Zletz, supra*, the examiner and the Board had interpreted claims reading "normally solid polypropylene" and "normally solid polypropylene having a crystalline polypropylene content" as being limited to "normally solid linear high homopolymers of propylene which have a crystalline polypropylene content." The court ruled that limitations, not present in the claims, were improperly imported from the specification. See also *In re Marosi*, 710 F.2d 799, 802 (Fed. Cir. 1983)("[C]laims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their 'broadest reasonable interpretation."D' (quoting *In re Okuzawa*, 537 F.2d 545, 548 (CCPA 1976)). The court looked to the specification to construe "essentially free of alkali metal" as including unavoidable levels of impurities but no more.).

III. "PLAIN MEANING" REFERS TO THE ORDINARY AND CUSTOMARY MEANING GIVEN TO THE TERM BY THOSE OF ORDINARY SKILL IN THE ART

"[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)(*en banc*); *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302 (Fed. Cir. 2003); *Brookhill-Wilk 1*, *LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294 (Fed. Cir. 2003) ("In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.").

The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art. However, the best source for determining the meaning of a claim term is the specification - the greatest clarity is obtained when the specification serves as a glossary for the claim terms. See, e.g., *In re Abbott Diabetes Care Inc.*, 696 F.3d 1142, 1149-50 (Fed. Cir. 2012) (construing the term "electrochemical sensor" as "devoid of external connection cables or wires to connect to a sensor

control unit" to be consistent with "the language of the claims and the specification"); *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260-61 (Fed. Cir. 2010) (construing the term "material for finishing the top surface of the floor" to mean "a clear, uniform layer on the top surface of a floor that is the final treatment or coating of a surface" to be consistent with "the express language of the claim and the specification"); *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (construing the term "solder reflow temperature" to mean "peak reflow temperature" of solder rather than the "liquidus temperature" of solder in order to remain consistent with the specification).

It is also appropriate to look to how the claim term is used in the prior art, which includes prior art patents, published applications, trade publications, and dictionaries. Any meaning of a claim term taken from the prior art must be consistent with the use of the claim term in the specification and drawings. Moreover, when the specification is clear about the scope and content of a claim term, there is no need to turn to extrinsic evidence for claim interpretation. *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326-28 (Fed. Cir. 2013) (holding that "continuous microtextured skin layer over substantially the entire laminate" was clearly defined in the written description, and therefore, there was no need to turn to extrinsic evidence to construe the claim).

IV. APPLICANT MAY BE OWN LEXICOGRAPHER AND/OR MAY DISAVOW CLAIM SCOPE

The only exceptions to giving the words in a claim their ordinary and customary meaning in the art are (1) when the applicant acts as his own lexicographer; and (2) when the applicant disavows or disclaims the full scope of a claim term in the specification. To act as his own lexicographer, the applicant must clearly set forth a special definition of a claim term in the specification that differs from the plain and ordinary meaning it would otherwise possess. The specification may also include an intentional disclaimer, or disavowal, of claim scope. In both of these cases, "the inventor's intention, as expressed in the specification, is regarded as dispositive." Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc). See also Starhome GmbH v. AT&T Mobility LLC, 743 F.3d 849, 857 (Fed. Cir. 2014) (holding that the term "gateway" should be given its ordinary

and customary meaning of "a connection between different networks" because nothing in the specification indicated a clear intent to depart from that ordinary meaning); *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1367-68 (Fed. Cir. 2012)(The asserted claims of the patent were directed to a tactile feedback system for video game controllers comprising a flexible pad with a plurality of actuators "attached to said pad." The court held that the claims were not limited to actuators attached to the external surface of the pad, even though the specification used the word "attached" when describing embodiments affixed to the external surface of the pad but the word "embedded" when describing embodiments affixed to the internal surface of the pad. The court explained that the plain and ordinary meaning of "attached" includes both external and internal attachments. Further, there is no clear and explicit statement in the specification to redefine "attached" or disavow the full scope of the term.)

A. Lexicography

An applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning(s) in the specification at the time of filing. See In re Paulsen, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (holding that an inventor may define specific terms used to describe invention, but must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "set out his uncommon definition in some manner within the patent disclosure' so as to give one of ordinary skill in the art notice of the change" in meaning) (quoting Intellicall, Inc. v. Phonometrics, Inc., 952 F.2d 1384, 1387-88 (Fed. Cir. 1992)).

Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a "lexicographic vacuum, but in the context of the specification and drawings"). Thus, if a claim term is used in its ordinary and customary meaning throughout the specification, and the written description clearly indicates its meaning, then the term in the claim has that meaning. Old Town Canoe Co. v. Confluence Holdings Corp., 448 F.3d 1309,

1317 (Fed. Cir. 2006) (The court held that "completion of coalescence" must be given its ordinary and customary meaning of reaching the end of coalescence. The court explained that even though coalescence could theoretically be ""completed" by halting the molding process earlier, the specification clearly intended that completion of coalescence occurs only after the molding process reaches its optimum stage.)

However, it is important to note that any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." Multiform Desiccants Inc. v. Medzam Ltd., 133 F.3d 1473, 1477 (Fed. Cir. 1998). See also Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1357 (Fed. Cir. 1999) and MPEP § 2173.05(a).

In some cases, the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in the context in the specification. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320-21, 75 USPQ2d 1321, 1332 (Fed. Cir. 2005) (*en banc*); *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996). But where the specification is ambiguous as to whether the inventor used claim terms inconsistent with their ordinary meaning, the ordinary meaning will apply. *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1370 (Fed. Cir. 2005) (The Federal Circuit reversed the district court's construction of the claim term "about" as "exactly." The appellate court explained that a passage in the specification the district court relied upon for the definition of "about" was too ambiguous to redefine "about" to mean "exactly" in clear enough terms. The appellate court held that "about" should instead be given its plain and ordinary meaning of "approximately.").

B. Disavowal

Applicant may also rebut the presumption of plain meaning by clearly disavowing the full scope of the claim term in the specification. Disavowal, or disclaimer of claim scope, is only considered when it is clear and unmistakable. See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1341 (Fed.Cir.2001) ("Where the specification makes clear that the invention does

not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question."); see also In re Am. Acad. Of Sci. Tech Ctr., 367 F.3d 1359, 1365-67 (Fed. Cir. 2004) (refusing the limit claim term "user computer" to only "single-user computers" even though "some of the language of the specification, when viewed in isolation, might lead a reader to conclude that the term . . . is meant to refer to a computer that serves only a single user, the specification as a whole suggests a construction that is not so narrow"). But, in some cases, disavowal of a broader claim scope may be made by implication, such as where the specification contains only disparaging remarks with respect to a feature and every embodiment in the specification excludes that feature. In re Abbott Diabetes Care *Inc.*, 696 F.3d 1142, 1149-50 (Fed. Cir. 2012) (holding that the broadest reasonable interpretation of the claim term "electrochemical sensor" does not include a sensor having "external connection cables or wires" because the specification "repeatedly, consistently, and exclusively depict[s] an electrochemical sensor without external cables or wires while simultaneously disparaging sensors with external cables or wires"). If the examiner believes that the broadest reasonable interpretation of a claim is narrower than what the words of the claim otherwise suggest as the result of implicit disavowal in the specification, then the examiner should make his or her interpretation clear on the record.

See also MPEP § 2173.05(a).

V. Summary of determining the meaning of a claim term that does not invoke 35 U.S.C. 112(f)

* * *

The first question is to determine whether a claim term has an ordinary and customary meaning to those of ordinary skill in the art. If so, then the examiner should check the specification to determine whether it provides a special definition for the claim term. If the specification does not provide a special definition for the claim term, the examiner should apply the ordinary and customary meaning to the claim term. If the specification provides a special definition for the claim term, the examiner should use the special definition. However, because there is a presumption that claim terms have their ordinary and customary meaning and the specification must provide a clear and intentional use of a special definition

for the claim term to be treated as having a special definition, an Office action should acknowledge and identify the special definition in this situation.

Moving back to the first question, if a claim term does not have an ordinary and customary meaning, the examiner should check the specification to determine whether it provides a meaning to the claim term. *If no reasonably clear meaning can be ascribed to the claim term after considering the specification and prior art, the examiner should apply the broadest reasonable interpretation to the claim term as it can be best understood.* Also, the claim should be rejected under 35 U.S.C. 112(b) and the specification objected to under 37 CFR 1.75(d). If the specification provides a meaning for the claim term, the examiner should use the meaning provided by the specification. It may be appropriate for an Office action to clarify the meaning acknowledge and identify the special definition in this situation.* **

IX. BEYOND CUOZZO SPEED, OTHER MANUAL SHORTCOMINGS

The "broadest reasonable interpretation" rule and its adoption the Supreme Court in *Cuozzo Speed* have attracted a great deal of attention, which is the major reasons that this rule has been the focus of this paper. But, there are at least three other equally egregious areas that could be considered, the non statutory requirements for a "gist" of the invention, *see* § IX,-A, "*Gist of the Invention*", the complexities of requirements for a "background" of the invention, *see* § IX,-B, "*Background of the Invention*" and finally the preposterious requirement for an "abstract, *see* § IX,-C, "Abstract of the Disclosure." Lest anyone think that the "broadest reasonable interpretation" problem stands alone, a brief discussion of these three further issues is included in this paper.

A. "Gist of the Invention"

1. What the Director and the Manual Say

Rule 73 of the *Rules of Practice in Patent Cases* states that an application should include "[a] brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention."⁸⁴ The *Manual* goes much further than this rule when it says that the specification should disclose "the nature and *gist of the invention* or the inventive concept [which]

⁸⁴ 37 CFR § 1.73, *Summary of the invention* (emphasis added)("A brief summary of the invention indicating its *nature and substance*, which may include a statement of the object of the invention, should precede the detailed description. Such sum ary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed.")(emphasis added)

should be set forth."⁸⁵ Indeed, the *Manual* in § 608.01(d) appears to ignore decades of statutory and practice changes whereas instead of saying that the *Brief Summary of the Invention* is to *define* the scope of the claimed invention, this section of the *Manual* says that "the purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the *nature of the invention*[.]"⁸⁶ Under this false premise, the *Manual* then concludes that "the summary should be directed to the specific invention being claimed, in contradistinction to mere generalities which would be equally applicable to numerous preceding patents. That is, the subject matter of the invention should be described in one or more clear, concise sentences or paragraphs."⁸⁷ In other words, the *Manual* in essence says that the *Brief Summary of the Invention* should *not* define the metes and bounds of protection sought by the patent applicant but instead teach "the nature of the invention", a concept divorced from the scope of protection and a concept that had statutory relevance years ago when it appeared in earlier versions of the patent law. While

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MPEP § 608.01(a) Arrangement of Application [R-07.2015], 37 CFR 1.77 Arrangement of application elements: "(h) BRIEF SUMMARY OF THE INVENTION: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention. * * *." MPEP § 608.01(a), Arrangement of Application [R-07.2015] (downloaded from Westlaw November 22, 2017, current through the Ninth Edition, October 2015)(emphasis added).

[.] 86 *Id*.

⁸⁷ *Id.* ("the summary should be directed to the specific invention being claimed, in contradistinction to mere generalities which would be equally applicable to numerous preceding patents. That is, the subject matter of the invention should be described in one or more clear, concise sentences or paragraphs.")

the clear purpose of the Summary of the Invention today is to define what is claimed, to the contrary, Manual says that "the purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the nature of the invention, [so that] the summary should be directed to the specific invention being claimed, in contradistinction to mere generalities which would be equally applicable to numerous preceding patents. That is, the subject matter of the invention should be described in one or more clear, concise sentences or paragraphs."88 The muddled advice on how to draft the Summary of the Invention is topped off with the following statement to further obfuscate the situation by focusing not on the scope of protection, but rather on how the examining corps can be aided for its future searches for inventions down the road: "The brief summary, if properly written to set out the exact nature, operation, and purpose of the invention, will be of material assistance in aiding ready understanding of the patent in future searches. The brief summary should be more than a mere statement of the objects of the invention, which statement is also permissible under 37 CFR 1.73."89

2. The Reality

For whatever reason, the Director and the administrative leadership of the Office continue to live in a world from the first half of the nineteenth century. In another floor of the Patent Office, there is an entirely different reality as manifested by the Board's treatment of the "gist" of the invention requirement. As

⁸⁸ *Id*.

⁸⁹ MPEP § 608.01(d), *Brief Summary of Invention* [R-07.2015].

explained by Judge Capp in the *Prince* case, citing the Federal Circuit *Vas-Cath* case, "it is *well settled* that there is no legally recognizable or protected *** 'gist' of the invention in a combination patent." In the same vein, Judge Bahr in her opinion in the *Carter* case cites the Federal Circuit *W.L. Gore* to explain that "[i]t is *well settled* that obviousness is not determined based on the gist of the invention." Judge Evans in the *Minear* case makes the same point: "[T]he Supreme Court [in the 1961 *Aro* case] 'has made it clear . . . that there is no legally recognizable or protected *** 'gist' *** of the invention in a combination patent."

The opinions of the jurists from the Patent Trial and Appeal Board, Judges Capp, Bahr and Evans, are cited, here, to show that a reference to the "gist" of the invention is outdated and should be taken out of the language of the patent system as an anachronism from a bygone era. Beyond the statements of Judges Capp, Bahr and Evans there is a rich history of the "gist" requirement – and how it is so, so out of date today. Thus, the statements of Judges Capp, Bahr and Evans are presented, here, only to emphasize the fact that within the Board there is a contemporaneous recognition that "gist of the invention" is a historical, old English doctrine that should play no role in the modern American patent regime. This early origins of the "gist" requirement are explained elsewhere:

⁹⁰ Ex parte Prince, 2014 WL 880144 (Patent Tr. & App. Bd. 2014)(Capp, APJ)(emphasis added)(citing Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1565 (Fed. Cir. 1991) quoting Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 345 (1961).)

⁹¹ Ex parte Carter, 2014 WL 1048605, slip op. at 4 (Patent Tr. & App. Bd. 2014)(Bahr, J.)(emphasis added) (citing W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1548 (Fed. Cir. 1983)).

⁹² Ex parte Minear, 2017 WL 2899912, slip op. at 3 (Patent Tr. & App. Bd. 2017)(Evans, APJ)(quoting and citing Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 344-45 (1961)).

"In determining obviousness, there is 'no legally recognizable or protected ... 'gist'... of the invention." Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 345 (1961); see also CLS Bank Intern. v. Alice Corp. Pty. Ltd., 717 F.3d 1269 (Fed. Cir. 2013)(en banc) (Rader, C.J., joined by Linn, Moore, O'Malley, JJ., concurring in part and dissenting in part), aff'd sub nom Alice Corp. Pty. Ltd. v. CLS Bank Intern., 134 S. Ct. 2347 (2014) ("It would be improper for the court to ignore [claim] limitations and instead attempt to identify some 'gist'... of the invention. See [Diamond v. Diehr, 450 U.S. 175, 188 (1981)] (it is improper to dissect the claims; they must be considered as a whole)"). See also the suggestion of 37 C.F.R. § 1.73 that the specification should indicate the "gist" of the invention, which implemented a nineteenth century statutory requirement that was not carried forward in the 1952 Patent Act.

"Gist" was used early in nineteenth century in United States patent cases. ["Gist" was a term used in several settings. See Evans v. Eaton, 8 F. Cas. 846, No. 4559 (C.C.D. Pa. 1816) (B. Washington, J.) (charging jury), rev'd, 16 U.S. (3 Wheat.) 454 (1818) ("The patent is the foundation of the action, and the gist of the action is the violation of a right which the patent has granted.") (emphasis added); *Stimpson* v. Baltimore & S.R. Co., 51 U.S. (10 How.) 329, 341 (1850)(statement in the summary of the pleadings, not part of the opinion) ("You have the plaintiff's claim, the sum, substance, and gist of his invention.") (emphasis added); Adams v. Edwards, 1 F. Cas. 112, 114, No. 53 (C.C.D. Mass. 1848) (Woodbury, J.) (charging jury) ("[feature] seems to constitute the gist of this discovery[.]") (emphasis added). "Gist" corresponded with early usage of the terminology in England. [See, e.g., Henry Unwin v. Charlotte Heath, Administratrix of Josiah Marshall Heath, deceased, 10 E.R. 997, 1014 (HL 1855) (Brougham, L.) ("[T]he patentee states that he does not 'claim the use of any such mixture of cast and malleable iron, or malleable iron and carbonaceous matter, as any part of his invention; but only' (and here is the gist of the invention as specified), 'the use of carburet of manganese in any process for the conversion of iron into cast steel.") (emphasis added); see also *Betts v. Menzies*, 120 E.R. 1181, 1187 (U.K. QB 1859) (report of pleadings) ("The proportions in which he specifies that the two metals must be used constitute the gist of his invention, and make it an entirely new discovery.") (emphasis added).]

References to the "gist of the invention" are more frequently found in case law stemming from appeals from the Patent Office as a measure to define the scope of protection under the patent law prior to the 1870 introduction of claims as the mandatory definition of the scope of protection. [*In re Everson*, 8 F. Cas. 908, 909,

No. 4580 (C.C.D. D.C. 1855) ("The first reason of appeal is because the commissioner overlooked what the appellants suppose the gist of their invention consists in; that is, that it allows the respective dock sections with which it is combined to be placed either in contact with each other or at any desired distances from each other.") (emphasis added); In re Corbin, 6 F. Cas. 538, 539, No. 3224 (C.C.D. D.C. 1857) ("What is the gist of the invention? It is the manufacture of an imitation honey—a composition which closely resembles the real article in thickness or consistency, in color, in taste, and in flavor, so that persons may not be able to distinguish the spurious from the genuine article. The resemblance is in fact so perfect that, judging from the appearance alone, it would be difficult to say which is genuine.") (emphasis added); Ex parte Emery, 8 F. Cas. 642, 644, No. 4444 (C.C.D. D.C. 1859) ("The wheels referred to by the commissioner do not anticipate the device of appellant, because they never permit the shoe and cutterbar to come to the ground. They do not perform the double office of elevating the cutter when necessary and allowing it to come down to the ground when necessary. This is the gist of the invention.") (emphasis added); Ex parte Dyson, 8 F. Cas. 215, 216, No. 4228 (C.C.D. D.C. 1860) (interpreting patent filed in 1849) ("The gist of Mr. Dyson's invention is the differential motion of the stripper, A, introduced upon the engine, to clear the main cylinder, C, of the cotton imbedded in it in the process of carding without stopping the machine by this self-acting contrivance.") (emphasis added); Ex parte Arthur, 1 F.Cas. 1192, 1192–93 (C.C.D.C. 1860) (No. 563A) ("Where then is to be found the superior simplicity of Arthur's arrangement, where the diminished cost? Certainly not in the spring which is the gist of the invention—which in Enos' case serves to support the valve rod and return the valve to its seat when depressed for the outflowing of the oil, and which it cannot be and is not denied, can be manufactured no more cheaply than Enos'.") (emphasis added).]

An explanation of the "gist of the invention" is found, for example, in *George Frost Co v. Silvermann*, 62 F. 463, 464 (C.C.W.D. Pa. 1894) (quoting the patent specification). The "gist" was found relevant in that case to determine the scope of protection: "The change from a fibrous cord to a flexible chain [in the patented garter] affects neither the form of construction, the mode of operation, nor the result. The chain loop performs the exact function that the cord loop does, and in precisely the same way. This is, I think, a plain case of equivalency. The *gist of the invention*, as defined in the specification of the patents, is found in the defendants' garter." *George Frost Co. v. Silvermann*, 62 F. at 464–65 (emphasis added). Federal Circuit precedent has equated the "gist" of the invention with the "essence", "essential" feature or "heart" of the invention. [*Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1533 n.8 (Fed. Cir. 1987)(Markey, C.J.)

("In determining priority of invention, consideration of the 'gist' or 'essence' of the invention may be appropriate. See, e.g., Stansbury v. Bond, 482 F.2d 968, 974 (CCPA 1973); McCutchen v. Oliver, 367 F.2d 609, 611 (CCPA 1966); Hall v. *Taylor*, 332 F.2d 844, 848 (CCPA 1964). We are aware of dicta that state consideration of the 'essence', 'gist', or 'heart' of the invention may be helpful in determining infringement under the doctrine of equivalents. Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861 (Fed.Cir.1985); Atlas Powder Co. v. E.I. Du Pont De Nemours & Co., 750 F.2d 1569, 1582 (Fed.Cir.1984) (both citing Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567 (Fed.Cir.1983). That dicta may not be read as implying that specific claim limitations can be ignored as insignificant or immaterial in determining infringement. It must be read as shorthand for the considerations set forth in *Graver Tank*, i.e., that the infringer should not appropriate the invention by making substitutions for those limitations, when the substitutions do not substantially change the function performed, or the way it is performed, by the invention."); see also Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 875 (Fed. Cir. 1985)(overruled by, Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059 (Fed. Cir. 1998)) (Baldwin, J.) ("Though consideration of an invention's 'gist' is appropriate in some contexts, e.g., in determining infringement under the doctrine of equivalents, when determining obviousness there is no legally recognizable or protected 'essential,' 'gist,' or 'heart' of the invention. See, e.g., Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567 (Fed.Cir.1984).").]⁹³

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⁹³ Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, § 9:16, "Gist" of the Invention (Thomson Reuters 2017)(footnotes integrated into text in brackets)(available on Westlaw)(emphasis added).

B.. "Background of the Invention"94

The *Background of the Invention* is *not* a statutory requirement but rather a creation of Patent Office rulemaking. The *Manual* explains the *Background of the Invention*:

"MPEP § 608.01(C) BACKGROUND OF THE INVENTION

"The Background of the Invention may include the following parts:

- "(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions. The statement should be directed to the subject matter of the claimed invention.
- "(2) Description of the related art including information disclosed under 37 C.F.R. 1.97 and 37 C.F.R. 1.98: A paragraph(s) describing to the extent practical the state of the prior art or other information disclosed known to the applicant, including references to specific prior art or other information where appropriate. Where applicable, the problems involved in the prior art or other information disclosed which are solved by the applicant's invention should be indicated. See also MPEP § 608.01(a), § 608.01(p) and § 707.05(b)."

Leading authorities including Professor Miller have cautioned the applicant community against the use of a *Background of the Invention*, ⁹⁵ while there remains

⁹⁴ This section has been adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, § 7:16 to § 7:24 and § 9:3 to § 9:8, *Background of the Invention* (Thomson Reuters 2017), which is also available on Westlaw. Footnote material has been either deleted or is integrated into the text in brackets.

⁹⁵ Joseph Scott Miller, *Enhancing Patent Disclosure For Faithful Claim Construction*, 9 Lewis & Clark L. Rev. 177, 200-02 (2005); *see also* John Burke, *The Prior Art by Admission Doctrine: Judicially Created Private Prior Art*, 13 Fed. Circuit B.J. 607, 623-24 (2003-2004)("Avoidable admissions are most frequently made in the specification. In drafting patent applications, it is all

a widespread understanding amongst patent practitioners that such a section should be included in a patent application as seen from the advice of an Administrative Patent Judge.⁹⁶

Under Rule 77(b)(5), it is suggested that a patent applicant "should" include in the patent specification a "[b]ackground of the invention". 37 C.F.R. § 1.77(b)(5).

The Patent Office as part of Rule 77(b)(5), while saying there "should" be a *Background of the Invention* never says *what the content should be*.

Thus, there is nothing in the Rules that specify *what* must or should be included in the *Background*.

too common practice to describe in detail the nature and background of the prior art leading up to the claimed invention. While it may be desirable to impress upon the examiner the point of departure between the old and the new, when those boundaries are uncertain one runs the risk of unnecessarily creating a private set of prior art. Given no statutory requirement for inclusion of a Description of the Prior Art, or for that matter, a Background of the Invention, one should reevaluate the rationale for providing such detailed description of the art. The patent laws only require that the specification satisfy the written description, enablement and best mode requirements as set forth in 35 U.S.C. § 112.)(footnote omitted).

specification should include a Background of the Invention section[.]" Lance Leonard Barry, Cézanne and Renoir: Analogous Art in Patent Law, 13 Tex. Intell. Prop. L.J. 243, 259 (2005); see also Martin P. Hoffman, The Patent Procurement Process 167 (ALI-ABA Course of Study) C567 ALI-ABA 159, 167 (Nov. 15, 1990)(explaining that the Background of the Invention should show "recognition of problems found in the prior art which are solved by present invention; [it] may use prior art (all or at least most pertinent patents) developed by patentability search to illuminate problems existing at time of invention, and attempts (successful or otherwise) by previous inventors to resolve these problems[.]"); Greg Reilly, Judicial Capacities and Patent Claim Construction: An Ordinary Reader Standard, 20 Mich. Telecomm. & Tech. L. Rev. 243, 251 (2014)(The core of the specification starts with a 'Background of the Invention' identifying the technical field of the invention, the problem in the field that the invention addresses, existing knowledge about this problem, and prior attempts to solve it.")(footnote deleted).

To be sure, there remain many in the patent community who routinely include a "Background of the Invention" for a variety of reasons including making the invention understandable in court, ⁹⁷ compliance with the duty of disclosure, ⁹⁸ and setting forth the state of the art. ⁹⁹

⁹⁷Rita Mankovich Irani, *The New Skirmish in Patent Cases: Who Goes First at Trial and with What Evidence?*, 17 AIPLA Q.J. 364, 377 (1989)("In its opinions on appeal, the Federal Circuit generally begins its discussion with the background of the invention and then what is claimed. [footnote citations omitted] Isn't this an indication that the reader must have this background before it can understand the court's opinion? The patent itself always begins with the background of the invention. Again doesn't this strongly indicate that the background, including its usual prior art discussion, is necessary to understand the detailed discussion, the drawings, and ultimately the claims? How can we expect the trier of fact to reach an ultimate conclusion on any issue, including infringement, without this background?")

⁹⁸ Jay Erstling, *Patent Law and the Duty of Candor: Rethinking the Limits of Disclosure*, 44 Creighton L. Rev. 329, 334 (2011)("What ... is the role of the duty of candor in the examination process? *** ***Applicants typically comply by including an overview or summary of the state of the art in the part of the description that explains the background of the invention.")(footnotes omitted); Matthew E. Hanley, *What Does Your Patent Application Say About You*?, 20 No. 5 Intell. Prop. & Tech. L.J. 23 (2008)("One section of a patent application is entitled 'Background of the invention.' The background section usually discusses the state of the industry, similar inventions that existed before the one being described in the application, and how the invention will fill a current need. * * * Inventors are encouraged to write a detailed background section for two reasons: (1) it provides context for the invention, and (2) it demonstrates that the inventor understands the technology in the field."

⁹⁹ Lance Leonard Barry, *Anything You Say Can Be Used Against You: Admissions Of Prior Art*, 82 J. Pat. & Trademark Off. Soc'y 347, 349 (2000)("In a specification, an applicant often describes what the applicant knows to be the state of the prior art related to the invention. Such a description may be found in any section of the specification. It is often found in the "Background of the Invention" section, however, particularly in the portion thereof describing the related art.")(footnotes omitted).

1. What the PTO Leadership Says

If an amendment is made to introduce a *Background of the Invention* for the first time, insofar as the amendment does not impact the scope of the claimed invention or otherwise provide support for claim limitations, such an amendment may not represent new matter relating to the "disclosure of the invention." ¹⁰⁰

¹⁰⁰ Under 35 USC § 132(a), second sentence, "[n]o amendment shall introduce new matter into the *disclosure of the invention*." As long as an amendment to the *Background of the Invention* does not implicate the scope (or other content) of the "disclosure of the invention", the proscription against "new matter' does not apply: "[Section 132] provides that no amendment shall introduce new matter into the disclosure of the invention." MPEP § 2163.06, *Relationship of Written Description Requirement to New Matter* [R-11.2013]. Furthermore, "[w]hen the claims have not been amended, *per se*, but the specification has been amended to add new matter, a rejection of the claims under 35 U.S.C. 112(a) ***should be made whenever any of the claim limitations are affected by the added material." *Id*.

Without reference to a "Background of the Invention" section, the Supreme Court has emphasized that the "new matter" proscription in the statute relates to new matter relating to a disclosure of the invention. See Giant Powder Co. v. California Powder Works, 98 U.S. (8 Otto) 126, 138 (1878)(Bradley, J.)("The specification may be amended so as to make it more clear and distinct; the claim may be modified so as to make it more conformable to the exact rights of the patentee; but the invention must be the same. So particular is the law on this subject, that it is declared that 'no new matter shall be introduced into the specification.' This prohibition is general, relating to all patents; and by 'new matter' we suppose to be meant new substantive matter, such as would have the effect of changing the invention, or of introducing what might be the subject of another application for a patent.")(emphasis added). See also Parker & Whipple Co. v. Yale Clock Co., 123 U.S. 87, 101 (1878) (characterizing California Powder Works, 98 U.S. at 137, in the context of a reissue)("The specification may be amended so as to make it more clear and distinct; the claim may be modified so to make it more conformable to the exact rights of the patentee; but the invention must be the same. So particular is the law on this subject that it is declared that 'no new matter shall be introduced into the specification.' This prohibition is general, relating to all patents; and by 'new matter' we suppose to be meant new substantive matter, such as would have the effect of changing the invention, or of introducing what might be the subject of another application for a patent."); Topliff v. Topliff, 45 U.S. 146, 166 (1892)("[B]y 'new matter' we suppose to be meant new substantive matter, such as would have the effect of changing the invention, or of introducing what might be the subject of another application for a patent."); Yale Lock Mfg. Co. v. Scovill Mfg. Co., 3 F. 288, 295 (C.C.D.Conn. 1880)("[T]he law *** is declared that 'no new matter shall be introduced into the specification.'

a. "Field of the Invention"

The first part of the suggested *Background* ... is that there should be a "field of the invention". This is an anachronistic provision that is designed to help the *classification* clerk or examiner determine the proper *classification* of the application for assignment to the appropriate examining division or group. Thus, under the *Manual*, the "field" portion of the *Background* section is of "[a] statement of the field of art to which the invention pertains. This statement may include *a paraphrasing of the applicable U.S. patent classification definitions*." *Id.*; emphasis supplied.

b. Prior Art "Information"

The *second* part of the *Background* is to provide a "[d]escription of the related art including information disclosed under 37 C.F.R. 1.97 and 37 C.F.R. 1.98". This should comprise at least one paragraph "describing to the extent practical the state of the prior art or other information disclosed known to the applicant, including references to specific prior art or other information where appropriate.

Identification of a "field" of the invention may be seen as an admission. ¹⁰¹ Identification of the "field of the invention" has also been seen to be important in

^{*** [}B]y 'new matter' we suppose to be meant *new substantive matter*, such as would have the effect of changing the invention, or of introducing what might be the subject of another application for a patent.")(emphasis added); Martin J. Adelman & Gary L. Francione, *The Doctrine of Equivalents in Patent Law: Questions that Pennwalt Did Not Answer*, 137 U. Pa. L. Rev. 673, 717 n.190 (1989)(quoting *Siebert Cylinder Oil Corp. v. Harper Steam Lubricator Co.*, 4 F. 328, 333 (C.C.D. Conn. 1880)(" 'New matter' is 'new, substantive matter, such as would have the effect of changing the invention, or of introducing what might be the subject of another application for a patent."")(emphasis added).

¹⁰¹ Apple Inc. v. Samsung Electronics Co., Ltd., 816 F.3d 788, 803 (Fed. Cir. 2016)(Dyk, J.), vacated in part on reh'g en banc, __ F.3d __, 2

determining the interpretation of a means-plus-function claim. The field of the invention has also been used to determine the limits of a patent law. 103

c. Discussion of "Problems" of the Invention

The *Background* provides that "[w]here applicable, the problems involved in the prior art or other information disclosed which are solved by the applicant's invention should be indicated."

016 WL 5864573 (Fed. Cir. 2016)("The specification clearly describes the field of the invention as being related to 'transitioning' touch screen devices between interface states. The specification clearly describes the field of the invention as being related to 'transitioning' touch screen devices between interface states.")

¹⁰² Enfish, LLC v. Microsoft Corp.,822 F.3d 1327, 1339 (Fed. Cir. 2016)(Hughes, J.)("For a claim element recited in means-plus-function format, 'the specification must contain sufficient descriptive text by which a person of skill in the field of the invention would 'know and understand what structure corresponds to the means limitation.' 'Typhoon Touch Techs., Inc. v. Dell, Inc., 659 F.3d 1376, 1383–84 (Fed.Cir.2011) (quoting Finisar Corp. v. DirecTV Grp., Inc., 523 F.3d 1323, 1340 (Fed.Cir.2008))."

¹⁰³ Nystrom v. TREX Co., Inc., 424 F.3d 1136, 1320 (Fed. Cir. 2005)(Linn, J.)(quoting Toro Co. v. White Consol. Indus., Inc., 199 F.3d 1295, 1299 (Fed.Cir.1999)) ("Determining the limits of a patent claim requires understanding its terms in the context in which they were used by the inventor, considered by the examiner, and understood in the field of the invention.").

In *Tokai Corp. v. Easton Enterprises, Inc.*, 632 F.3d 1358, 1371 (Fed. Cir. 2011), identifying the problem may be the key to a conclusion of obviousness: "As the Supreme Court recognized in *KSR*, the nature of the mechanical arts is such that 'identified, predictable solutions' to known problems may be within the technical grasp of a skilled artisan. [*KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007)]; *see also Rothman* [v. Target Corp., 556 F.3d 1310, 1319 (Fed.Cir.2009)] (stating that, in the predictable arts, a claimed invention may be invalidated more readily by showing 'a motivation to combine known elements to yield a predictable result').")

The "problem" with statement of a "problem" is generally associated with the validity of a patent. Statement of a problem may also lead to a narrow scope of protection. In *Openwave Systems*, a *Background of the Invention* which repeated disparaged a particular embodiment has been found to be basis to exclude such an embodiment from the scope of protection. ¹⁰⁴

¹⁰⁴ Openwave Systems, Inc. v. Apple Inc., 808 F.3d 509, 517 (Fed. Cir. 2015)(O'Malley, J.)(emphasis added)(footnote deleted)("The specification repeatedly and clearly distinguishes the invention of the patents-in-suit from more powerful—and therefore more costly—mobile devices in combination with 'computer modules.' Such mobile devices being more powerful and more costly, the patents-in-suit repeatedly disparage them for their failure to meet the demands of the market.

[&]quot;*** [I]t is difficult to envisage how, in light of the repeated disparagement of mobile devices with 'computer modules' ... one could read the claims of the patents-in-suit to cover such devices. We agree with the district court that they do not.")

d. Problems with "Problems" Stated the Application

Provided the "information" important to an Examiner and required by Rule 56 is supplied in some form, it is completely unnecessary to supply a Background section in the patent application.

First of all, creating a *Background* section at the time of filing is very dangerous in the sense that there may be a false characterization of the true state of the art. At the time the application is filed, there remain some unpublished but prior filed patent applications that are thus completely unknown to the patent applicant; yet, *after* filing the application, when these applications are *published*, they retroactively become "prior art" under 35 U.S.C.A. § 102(e)(1). Then, the state of the prior art may be discovered to be different. Now, the original statement may be a misrepresentation of the true state of the art. Must there be an amendment?

Second, even if there is no mistake in the characterization of the invention, the characterization may create a narrowed interpretation for the scope of protection under the rules of claim construction.

In the *Reading & Bates* case, the patentee initially got in trouble by describing *his own work* as part of the "Summary of the Prior Art". *Riverwood Intern. Corp. v. R.A. Jones & Co., Inc.*, 324 F.3d 1346, 1354-55 (Fed. Cir. 2003)(Linn, J.)(discussing *Reading & Bates Construction Co. v. Baker Energy Resources Corp.*, 748 F.2d 645 (Fed.Cir.1984)). In the end, the patentee did win the case on the narrow basis that the work described was the patentee's own work. *Riverwood*, 324 F.3d 1346 at 1355 (The court "held that the patentee's discussion of his own patent in the specification section entitled 'Summary of the Prior Art'

did not constitute an admission that the patent was prior art. In reaching its conclusion, the court reviewed our precedent and recognized the 'policy behind requiring a statutory basis before one's own work may be considered as prior art."")(citations omitted).

e. KSR-Related Problems with "Problems"

The patent applicant who provides a "Background of the Invention" identifying a known problem in the art creates a problem under *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). Admission that there is a known problem in the art invites the Examiner of the application or a court evaluating patent validity to conclude that the admission of the known problem creates a motivation to combine references, thereby rendering a possibly unobvious invention obvious.

"Evidence of a motivation to combine prior art references may flow from "the nature of the problem to be solved." *Dome Patent L.P. v. Lee*, 799 F.3d 1372 (Fed. Cir. 2015)(Hughes, J.)(quoting *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1371 (Fed. Cir. 2011), quoting *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1276 (Fed. Cir. 2004)).

As noted by the Chief Judge of the Federal Circuit, "[w]hen a claimed invention involves a combination of elements, however, any need or problem known in the relevant field of endeavor at the time of invention can provide a reason to combine. See *KSR* [550 U.S. at 420-21]. Moreover, the prior art need not address the exact problem that the patentee sought to resolve. Id." *Tyco Healthcare Group LP v. Ethicon Endo-Surgery, Inc.*, 774 F.3d 968 (Fed. Cir. 2014)(Prost, C.J.).

Institut Pasteur v. Focarino, 738 F.3d 1337 (Fed. Cir. 2013), points in the same direction:

"When there is a design need or market pressure to *solve a problem* and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." ¹⁰⁵

In *Stone Strong*, the Federal Circuit explained that "our cases emphasize that 'where all of the limitations of the patent were present in the prior art references, and the invention was addressed to a 'known problem,' '*KSR* . . . compels [a determination of] obviousness." 106

In yet another case, the Federal Circuit explained that "our cases emphasize that 'where all of the limitations of the patent were present in the prior art references, and the invention was addressed to a 'known problem,' '*KSR* . . . compels [a determination of] obviousness." *Stone Strong, LLC v. Del Zotto Products of Florida*, 455 Fed. Appx. 964, 969 (Fed. Cir. 2011)(quoting *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1240 (Fed. Cir. 2010), citing *Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc.*, 555 F.3d 984, 993 (Fed. Cir. 2009)).

In *Schwemberger* the admission in the specification of a known problem was a basis to reach a conclusion of unpatentability:

¹⁰⁵ Institut Pasteur, 738 F.3d at 1344(quoting KSR, 550 U.S. at 421 (2007)(emphasis added).

¹⁰⁶ Stone Strong, LLC v. Del Zotto Products of Florida., 455 Fed. Appx. 964, 969 (Fed. Cir. 2011)(quoting Wyers v. Master Lock Co., 616 F.3d 1231, 1240 (Fed. Cir. 2010), citing Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc., 555 F.3d 984, 993 (Fed. Cir. 2009)).

"The *specification* ... *discloses a known problem* [M]odifying Pruitt's staple line configuration in accordance with the configuration disclosed by Schulze is no more than 'the combination of familiar elements according to known methods . . . [with] predictable results.' See *KSR* [*Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007)]; see also *id.* at 421 ('When there is *a design need or market pressure to solve a problem* and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.'). Therefore, the Board correctly determined that claim 9 is obvious over the combination of Pruitt and Schulze." ¹⁰⁷

As explained in *Sanofi-Aventis Deutschland GmbH v. Glenmark Pharms*. *Inc.*, 748 F.3d 1354 (Fed. Cir. 2014), if there is a "known problem" this may be the thread to lead to a conclusion of obviousness under *KSR*. Thus, "[i]n *KSR*[, 550 U.S. at 421], the Court explained that 'obvious to try' [to defeat patentability] may apply when 'there are a finite number of identified, predictable solutions' to a *known problem*. The Court explained that when the path has been identified and 'leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.' *Id.*" *Sanofi-Aventis Deutschland*, 748 F.3d at 1360 (emphasis added).

As noted by the Chief Judge of the Federal Circuit in *Tyco Healthcare*, "[w]hen a claimed invention involves a combination of elements, however, any need or problem known in *the relevant field of endeavor* at the time of invention can provide a reason to combine. See *KSR*[, 550 U.S. at 420-21]. Moreover, the prior art need not address the exact problem that the patentee sought to resolve. Id." 108

¹⁰⁷ In re Schwemberger, 410 Fed. Appx. 298, 304 (Fed. Cir. 2010)(emphasis added).

 $^{^{108}}$ Tyco Healthcare Group LP v. Ethicon Endo-Surgery, Inc., 774 F.3d 968, 977 (Fed. Cir. 2014)(Prost, C.J.)(emphasis added).

The "field of endeavor" is explained in *Apple v. Samsung*: "A reference qualifies as analogous prior art if it is 'from the same field of endeavor, regardless of the problem addressed' or 'if the reference is not within the field of the inventor's endeavor, . . . the reference still is reasonably pertinent to the particular problem with which the inventor is involved.' *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1237 (Fed. Cir. 2010) (quoting *Comaper Corp. v. Antec, Inc.*, 596 F.3d 1343, 1351 (Fed. Cir. 2010)). *** The field of endeavor is determined 'by reference to explanations of the invention's subject matter in the patent application, including the embodiments, function, and structure of the claimed invention.' *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004); *see also In re Deminski*, 796 F.2d 436, 442 (Fed. Cir. 1986) (finding that if a prior art reference discloses essentially the same structure and function as the invention, it is likely in the same field of endeavor)."

f. PTAB Equates "Background" as "Admitted Prior Art"

In at least one case invalidity proceeding at the Patent Trial and Appeal Board, the Board has used the "background" section of a patent *and also the text of the provisional priority application* as critical "prior art" without statutory basis but rather as "admitted" prior art as seen from *Nichia Corp. v. Emcore Corp.*, Case No. IPR2012-00005, paper no. 68 (PTAB 2014)(Chang, APJ).

In the *Nichia v. Emcore* case a critical basis for the combination of prior art references is the "glue" provided by the "background" section of both the patentee's granted patent *and also its provisional priority application;* this "glue"

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 $^{^{109}\,}Apple,\,Inc.\,\,v.\,\,Samsung\,\,Electronics,\,Inc.,\,\,816\,\,F.3d\,\,788,\,802\,\,(Fed.\,\,Cir.\,\,2016)(Dyk,\,J.)(footnote\,\,omitted).$

ties together the combination of references to establish unpatentability of the invention.

The holding in *Nichia v. Emcore* is stated at the conclusion of its opinion: "[The patent challenger] has met its burden of proof ... in showing that claims 1-17 of the '215 patent are unpatentable under 35 U.S.C. § 103(a) over Kidoguchi, Nakamura, Fujimoto, Shibata, *and the Admitted Prior Art*." *Id.* at p. 64 (emphasis added).

Earlier in a section Entitled "Admitted Prior Art" in *Nichia v. Emcore* the Board explains:

"The Admitted Prior Art includes the background section of the [] provisional application and the background section of the [] patent. In particular, the background section of the [] patent states that, in most semiconductor devices, the contacts 20 should exhibit low 'ohmic' characteristics and low contact resistance. *** According to the background section of the [] patent, it was known at the time of the invention to form contacts for n-type GaN by annealing a Ti and Al structure. The background section of the [] provisional application states that '[t]ypical low work function metal/metal stack with yield low contact resistance to n-GaN on annealing is Al, Ti/Al."

g. Too Many Applicants Include a Background

There is no *statutory* basis to require a *Background of the Invention* and providing a *Background of the Invention* does not help the examiner with his examination of the application in a *Background of the Invention* that is *well drafted* to avoid admissions or any statement that would create a negative inference as to

¹¹⁰ Nichia Corp. v. Emcore Corp., Case No. IPR2012-00005, at 20-21, § II-B-2-e, Admitted Prior Art, paper no. 68 (PTAB 2014)(Chang, APJ).

patentability. (This also assumes, of course, that the best prior art known to the applicant *is* cited in an Information Disclosure Statement).

2. "Problems", "Objects" and "Advantages" for Japan Priority

In drafting a first United States application, it should be remembered that if the application is to serve as basis for a later Japanese convention application, it is helpful if the requirements of Japanese patent law are met as part of the United States priority application. Whether or not it is *necessary* that the Japanese substantive requirements are met as part of the priority filing, it is useful to include elements in the priority document that meet Japanese (and other overseas standards) because often the later Japanese or other overseas application are merely translated and neither revised nor tailored for Japanese or other differing standards.

Up until 1995 a point of great contention was the previous statutory requirement that the inventor must disclose in the specification an "object" of the invention, including a "problem that the invention is to solve". Until 1995, an applicant for patent in Japan under Art.36(iv) of the 1959 Patent Law *did*, as a matter of *statutory* law, have to state an "object" and "problem that the invention is to solve".

In 1995 Japan abolished its *statutory* requirement that the inventor must disclose in the specification an "object" of the invention, including a "problem that the invention is to solve". Before 1995, an applicant for patent in Japan under Art.36(iv) of the 1959 Patent Law *did* have to state an "object" and "problem that the invention is to solve":

"[Art.36(iv) of the 1959 Patent Law] stipulates that the detailed explanation of the invention shall state the 'objects'...of the invention in such a manner that it may easily be carried out by a person having ordinary skill in the art to which the invention pertains. Furthermore, under Examination Manual 25.01A, it is required that the 'objects' of the invention should be divided into three items proceeded by headings 'Industrial Field of Utilization', 'Prior Art', and 'Problem that the Invention is to Solve'.

"Consequently, the inclusion of 'objects' in a patent application is essential to the prosecution of the application or later interpretation of the granted patent."111

Art. 36(iv) was amended in 1995 to abolish the requirement for an "object" and "problem that the invention is to solve":

"The revised [Art. 36(iv)] ... stipulates that the detailed explanation of the invention shall state the invention, as provided for an ordinance of the Ministry of International Trade and Industry, in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art to which the invention pertains.

"Furthermore, Art.24-2 of Regulation [applicable since] July 1, 1995 stipulates that the description in accordance with the regulation as defined in the Patent Law Art.36(iv) shall be made by setting forth the features which are necessary for a person having ordinary skill in the art to recognize the technical significance of the invention, such as the problems to be solved by the invention and the solution therefore or the like.

"Therefore, the statement of 'object', 'constitution and advantage' is not mandatory. The application is not rejected on the ground of mere 'omission of

al.")

¹¹¹ Kenji Asai, Kanji Fujiyoshi, Fujihiro Kanda, Shuhei Katayama, Yoshihiko Kido, Shinichi Kimura, Hiroshi Kobayashi, Tomoya Kurokawa, Takao Matsui, Takanori Nakajima, Nobuyuki Nishikawa, Takeshi Nonaka, Toshiharu Ogawa, Makoto Onda, Yoko Sakuma, Takahisa Satoh, Yasumitsu Suzuki, Yukihisa Tamakushi, Yoshikazu Tani, Hitoshi Wada, Masashi Yanagida and Tamaki Yoshida, Questions and Answers Regarding Japanese Patent Practice, Answer A7(1) to Question 7: "Missing 'Object': If you do not include 'objects' in a patent application, is such action detrimental to the prosecution of the application or later interpretation of the patent?", Japan Patent Attorneys Association, International Activities Committee (3rd ed. 2007)("Asai et

object'. In other words, the requirement for disclosure can be met, as far as a person having ordinary skill in the art upon filing can clearly recognize the technical significance of the invention from the description of 'The Detailed Explanation of the Invention', and can carry out the invention based on the description of 'The Detailed Explanation of the Invention'."

A statement of "advantages" of the invention was at one time important for a Japanese patent application, but this is no longer the situation. Priority should be granted in Japan whether or not the American priority document discloses "advantages" of the invention. As explained by the Japan Patent Attorneys Association:

"The 1959 Patent Law in Art.36(iv) had a requirement that the specification state an 'object' and 'advantageous effect'. Under the old 1959 law, it had been 'recommended to state 'objects' of the invention as providing the alternative method in relation to the prior art. It [was] also advisable to state the 'advantageous effect' as being able to do something without using the conventional method." 113

However, although the *statute* was changed, the practice was not updated to correspond to this statutory reform. An analysis of the Japanese practice in 1995 up to the present time is that although the statute which changed the official guidance from the Japan Patent Office makes it still advisable to include the features of the pre-1995 law as part of patent applications drafted today. (Unpublished study by Shozo Uemura and his group including Fumio Inai, Hironobu Kashihara, Shozo Yamashita & Tamaki Yoshida.) To be sure, at least

¹¹² *Id.*, Answer A7(2).

¹¹³ Asai et al., Answer A9(1) to Question 9: "Problems' and 'Advantageous Effects', With respect to the specification, and the requirement to state 'problems' and 'advantageous effects', how should 'problems' and 'advantageous effects' be stated if the invention is simply another or alternative way of doing something, but there is no problem with prior art and the invention does not provide any significantly better efficiency, cost or results?', Japan Patent Attorneys Association, International Activities Committee (3rd ed. 2007).

some industry groups adhere to the idea that the statutory change was more significant than under the actual practice:

"Under the revised provision of Art.24-2 of Regulation which applies to patent applications filed on or after July 1, 1995, it is required to state either (i) the problems to be solved by the invention and technical means used for solving the problems, or (ii) the features which are necessary for a person having ordinary skill in the art to recognize the technical significance of the invention. Accordingly, if a so-called 'problem-solution approach' is not appropriate, it is not necessary to state [a] 'problem.' In summary, it is sufficient that explanation is made in such a manner that a person having ordinary skill in the art can recognize the technical significance of the invention.

"Under the revised provision of the Patent Law Art.36(iv) which applies to patent applications filed on or after July 1, 1995, statement of 'advantageous effect' is not required."

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The guidance from the Uemura group is consistent with the general rule today which, however, has significant loopholes, as discussed at § 9:5, *Japanese Requirement to State "Problem" and "Solution"*.

3. Practical Challenges Created by the Background

Whether a *Background of the Invention* should or should not be included in an application remains controversial. Before considering the varying points of view, this writer unequivocally states his view that, particularly for a first filing, the default should be *not* to include a *Background of the Invention* section. Despite the negative impact a *Background of the Invention* section may have on the grant or enforcement of a patent right, there remains a substantial portion of the patent community that continues to recommend inclusion of such a section in a patent

¹¹⁴ *Id.* Answer A9(2); emphasis added.

application;¹¹⁵ some see this as a *mandatory* requirement,¹¹⁶ while another view is that this is a mandatory requirement where the applicant should say nothing.¹¹⁷

¹¹⁵ For example, Lindeman states that "[t]ypically, the specification begins with a background section that provides the context for the invention. The background section can set out [the] problem the invention solves and discuss prior attempts to address the same problem. *** The background of the invention is a description to the extent practical of the state of the prior art or other information disclosed known to the applicant ***. Where applicable, the problems involved in the prior art or other information disclosed that are solved by the applicant's invention should be indicated." Jeffrey A. Lindeman, *Patenting Amorphous Solid Dispersions of Pharmaceuticals*, § 13.4.1, *Describing Amorphous Solid Dispersions in a Patent*, in Ann Newman, ed., PHARMACEUTICAL AMORPHOUS SOLID DISPERSIONS, p. 422 (John Wiley & Sons, Inc. 2015)(footnote omitted).

A highly regarded Silicon Valley law firm explains that "[t]he *Background of the Invention* identifies and describes some of the problems solved by the invention. This section may also describe conventional solutions to the problems and the shortcomings of such solutions. It is not necessary for this section to provide an

extensive overview and analysis of technical literature." Fenwick & West LLP, Instructions for Reviewing Your Patent Applications, Background of the Invention (2008), available at https://otl.stanford.edu/documents/fw_patappreviewinstr.pdf (last visited May 11, 2015). See also Alan S. Gutterman, 1 Corp. Couns. Gd. to Tech. Mgmt. & Trans. § 3:26 (July 2016)("[T]he background of the invention describes the prior art which pertains to the present invention, as well as *problems which may be found in the prior art* and which the invention solves. This section provides sufficient information to establish why, in fact, the invention was made, as well as an understanding of the problems associated with past apparatus or methods attempting to solve the same problems.")(emphasis added); Leslie L. Kasten, Jr., Securing and Enforcing Patent Rights, C567 ALI-ABA 15, 38 (1990)("[The Background of the Invention] section should provide a brief statement of the field of art to which the invention pertains as well as a description of the related art, problems involved with the related art and the specific problem that the invention was designed to alleviate or overcome."); 1 Eckstrom's Licensing in For. & Dom. Ops., Appendix 4D, A Guide to Filing A Non-Provisional (Utility) Patent Application U.S. Patent and Trademark Office (June 2016) ("The summary may point out the advantages of the invention and how it solves previously existing problems, preferably those problems identified in the Background of the Invention. A statement of the object of the invention may also be included.").

\$ 2.25 (Dec. 2015)(("Pursuant to the Rules of Procedure promulgated by the United States Patent and Trademark Office, 37 C.F.R. §§ 1.1 et seq., the specification must contain *** the background of the invention including the technical field and the description of known prior art ***."); Nellie A. Fisher, *The Patent Eligibility of Computer Implemented Processes in the Wake*

Others urge special attention should be paid to avoid showing that there is an "obvious solution" to problems identified in this section, ¹¹⁸ while some suggest caution as to any inclusion of such a section. ¹¹⁹ Clearly, there are situations where

of In Re Alappat: The Diehr Standard Resurrected, 32 Hous. L. Rev. 517, 523 (1995)("The specification must *** comprise[] *** the background of the invention[.]").

course, elaborates on "some pitfalls to be on the lookout for when you are preparing the *Background of the Invention*." Eugene Quinn, *Beware Background Pitfalls When Preparing a Patent Application*, IPWatchdog.com (October 23, 2011). He counsels practitioners to "stay away from describing what the prior art is or does." *Id.* He warns that "[i]f you talk about what the prior art does *** you may find it exceptionally difficult to back away from positive, descriptive statements that have previously been made." *Id.* Even worse, "the more you explain about the prior art the more likely you will be making it easy for the patent examiner to issue an obviousness rejection. *** If you explain the prior art and the problems too well then your solution, and hence your invention, could seem obvious." *Id.*

"Say nothing": Quinn says that "[t]he *Background* is supposed to be about the prior art *** but you won't [discuss the prior art] because of the pitfalls ***. You will only discuss in vague, cursory terms the prior art and only to the extent that it can be useful and NOT harmful. You must always remember the rampant problems inventors face when they lock themselves into a particular articulation of structural features and when they trivialize their own invention by making it seem obvious." *Id.*

D. Christopher Ohly, Trevor Joike, Kelly L. Morron & Melvin Robinson, *It is not so Obvious: The Impact Of KSR on Patent Prosecution, Licensing, and Litigation*, 36 AIPLA Q.J. 267, 292 (2008)(" [I]t has always been important for the patent draftsman to describe the background of the invention to avoid acknowledging that the problem solved by the invention was so well-known that an examiner could safely reject the application based upon prior art, no matter how remote. Instead, the draftsman should consider drafting the application to demonstrate, in some more detailed way, the absence of any 'obvious solution' to the problem solved by the 'invention.'").

Fed. Circuit B.J. 607, 623 (2003-2004)("In drafting patent applications, it is all too common practice to describe in detail the nature and background of the prior art leading up to the claimed invention. While it may be desirable to impress upon the examiner the point of departure between the old and the new, when those boundaries are uncertain one runs the risk of unnecessarily creating a private set of prior art. *Given no statutory requirement for inclusion of a Description of the Prior Art, or for that matter, a Background of the Invention, one should reevaluate the rationale for providing such detailed description of the art.*")(emphasis added);

the necessary motivation to combine prior art references – and hence render a claimed invention obvious – may be derived from a *Background of the Invention*, as illustrated by various cases at the Patent Trial and Appeal Board. ¹²⁰

Stephen M. McJohn, *Patents: Hiding from History*, 24 Santa Clara Computer & High Tech. L.J. 961, 971 (2008)("As to describing the 'background of the invention, one patent litigator[,Jeffrey L. Snow,] regards it an 'admission against interest."").

¹²⁰ Ex parte Hrastnik, 2008 WL 4448227, slip op. at 3 n.5 (Bd.Pat.App. & Interf. 2008)(Smith, APJ)("Given the teachings of the background of the invention and the cited prior art, it is our judgment that one of ordinary skill in the art would have found the requisite motivation, suggestion, to arrive at optimum amount of components for a nickel alloy composition."); Ex parte Mitchell, 2004 WL 1046891, slip op. at 3 (Bd.Pat.App. & Interf. ~2004)(Barrett, APJ)("Strickland describes [the Clegg patent] in the background of the invention, as a traffic warning system where [the figures] 'have indicia that light up when the predetermined speed is exceeded'. Thus, Strickland teaches providing a visual indication when a speed limit is exceeded, which provides motivation for providing specific visual indications.")(citation omitted); Ex parte Aksu, 2009 WL 5486072, slip op. at 3 (Bd.Pat.App. & Interf. 2009)(Siu, APJ)("Appellants argue that there 'is no motivation to implement the system discussed in Riddle for a data delivery process without applicant's disclosure specifically pointing out this deficiency in the prior art ... and suggesting a solution.' This is not persuasive. The motivation relied upon is that 'in order for a [multimedia streaming] service to be successful from the data delivery and playback performance point of view, the data delivery control mechanisms in the service must also be well-defined.'. This teaching was found under the "Background of the Invention" heading. Thus, the teaching is presumed to be an admission of prior art knowledge.")(citations omitted); Ex parte Jachimowicz, 2001 WL 863735, slip op. at 2 (Bd.Pat.App. & Interf. ~2001)(Gross, APJ)("Although the examiner fails to point to any specific portion of Wells for the motivation to combine, Wells discloses in the background of the invention that prior art telephones include only small displays capable of displaying information such as dialed numbers and that a need for displaying a large amount of transmitted data at the telephone has increased."); Ex parte Martino, 2008 WL 2233766, slip op. at 4 (Bd.Pat.App. & Interf. 2008)(Hairston, APJ) ("The Examiner responds that the motivation statement to combine the references is provided by [the] Kutlu [reference]"; "Kutlu describe [] problems in details in the 'Background of the invention' section[.]"); Ex parte Maclean, 2009 WL 451948, slip op. at 4 (Bd.Pat.App. & Interf. 2009)("The Supreme Court noted in KSR [International Co. v. Teleflex Inc., 550 U.S. 398 (2007),] that although the teaching, suggestion, motivation test 'captured a helpful insight,' an obviousness analysis 'need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.' KSR, 127 S. Ct. at 1741. *** Appellants

If a *Background of the Invention* is to be considered for inclusion in an application, it is important that the text is not mere puffery or – worse – provides a teaching of motivation that would render an objectively unobvious contribution unpatentable, given the admission of motivation in the specification.¹²¹

A "Background of the Invention" section is *not* required by statute and should *not* appear in a routine first filing, while there may be basis for *careful* usage of an *Abstract* in a downstream, continuing application. Under Rule 77(b)(5), a patent applicant "should" include in the patent specification a "[b]ackground of the invention". 37 C.F.R. § 1.77(b)(5).

incorporate patents that describe these known prior art assemblies in the Background of the Invention.")(citation omitted).

¹²¹ For cases where motivation is inferred from the patentee's arguments see *Norgren Inc. v.* International Trade Com'n, 699 F.3d 1317, 1327 (Fed. Cir. 2012)(Linn, J.)("[The patentee] cites Innogenetics, N.V. v. Abbott Laboratories, 512 F.3d 1363 (Fed.Cir.2008), to support its argument that there was insufficient evidence of a motivation to combine the elements and argues specifically that the problem listed in the patent was insufficient motivation. However, KSR expressly stated that '[o]ne of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.' 550 U.S. at 419–20."); Tokai Corp. v. Easton Enterprises, Inc., 632 F.3d 1358, 1371(Fed. Cir. 2011)(Lourie, J.)(citing KSR, 550 U.S. at 421)("As the Supreme Court recognized in KSR, the nature of the mechanical arts is such that "identified, predictable solutions" to known problems may be within the technical grasp of a skilled artisan."); Chapman v. Casner, 315 Fed. Appx. 294, 299 (Fed. Cir. 2009)(Rader, J., dissenting)("The Supreme Court in KSR International Co. v. Teleflex Inc. recently held that '[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.' 550 U.S. 398 (2007). This case *** is distinguished from KSR because there were no 'finite number of identified, predictable solutions' that were used to discover the source of and solution to the problems. Id.").

The Patent Office as part of Rule 77(b)(5), while saying there "should" be a *Background of the Invention* never says *what the content should be*.

Thus, there is nothing in the Rules that specify *what* must or should be included in the *Background*. Some guidance is provided in the *Manual of Patent Examining Procedure* which provides for a three part "Background of the Invention". It provides separate areas that should be included.

Per the *Manual*, the *Background of the Invention* ordinarily comprises two parts:

- "(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions. The statement should be directed to the subject matter of the claimed invention.
- "(2) Description of the related art including information disclosed under 37 C.F.R. 1.97 and 37 C.F.R. 1.98: A paragraph(s) describing to the extent practical the state of the prior art or other information disclosed known to the applicant, including references to specific prior art or other information where appropriate. Where applicable, the problems involved in the prior art or other information disclosed which are solved by the applicant's invention should be indicated. See also MPEP § 608.01(a), § 608.01(p) and § 707.05(b)."

What, precisely, does "field of the invention" mean in patent law? In the *Manual* this terminology refers to the classification of an invention, but the term has been used historically far longer than the existence of the *Manual* and with different meanings.¹²³

¹²² MPEP § 608.01(c), *Background of the Invention* [MPEP 8th ed. 2004].

¹²³See, e.g., *Woodbury Patent Planing-Mach. Co. v. Keith*, 101 U.S. (11 Otto) 479, 485 (1879)("An inventor cannot without cause hold his application pending during a long period of years, leaving the public uncertain whether he intends ever to prosecute it, and keeping the *field of his invention* closed against other inventors.")(emphasis supplied in part); *Western Elec. Co. v. Sperry Elec. Co.*, 58 F. 186, 192 (7th Cir. 1893)("An inventor cannot without cause hold his application pending during a long period of years, leaving the public uncertain whether he intends ever to prosecute it, and keeping the *field of his invention* closed against other

In addition to creating problems of invalidity to the extent that there is a disclosure suggesting a "problem" that motivates a worker skilled in the art to make the invention, the *Background of the Invention* may well spell denial of application of the doctrine of equivalents, dependent upon what is said in the *Background*.¹²⁴

The challenges of presenting a *Background of the Invention* section are also seen at the level of the Patent Trial and Appeal Board, where decisions manifest various pitfalls inherent with such a section. This is seen from several cases at the PTAB (or its statutory predecessor): A "Background of the Invention" may well be taken as an admission by the Patent Office as to motivation to combine prior

inventors.") (emphasis supplied); Santa Clara Val. Mill & Lumber Co. v. Prescott, 102 F. 501, 507 (9th Cir. 1900) ("The field of his invention was necessarily limited ... by what had preceded him.") (emphasis supplied); General Electric Co v. Duncan Electric Mfg Co., 183 F. 423, 426 (7th Cir. 1910) ("[T]he mere application of this method of adjustment *** is something that falls, we think, not within the field of electrical invention, but within the field, rather, of electrical engineering[.]") (emphasis supplied).

¹²⁴ Kraft Foods, Inc. v. International Trading Co., 203 F.3d 1362, 1372 (Fed. Cir. 2000) ("In Dawn Equipment [Co. v. Kentucky Farms, Inc., 140 F.3d 1009 (Fed.Cir.1998)], the Background of the Invention portion of the patent described problems with certain prior art mechanisms, which included the mechanism alleged to be equivalent to that claimed. We viewed this description to be "damning evidence" that the allegedly equivalent mechanism operated in a substantially different way, and declared that this evidence strongly suggested, if not mandated, judgment in the defendant's favor. See Dawn Equipment, 140 F.3d at 1016. Similarly, in Spectra Corp., we held that the written description's "clear and uncontroverted" statements that the allegedly equivalent structure served a function entirely opposite to that of the recited structure, coupled with the patent holder's admission to the same effect, precluded the patent holder from asserting the doctrine of equivalents. See Spectra Corp. [v. Lutz, 839 F.2d 1579, 1582 (Fed.Cir.1988)].")

art.¹²⁵ Or, a "Background of the Invention" may show that two different pieces of prior art can be combined because a person skilled in the art would know the fields of such different pieces.¹²⁶ A "Background of the Invention" may show that a claim limitation is a mere "design choice".¹²⁷ Or, a "Background of the Invention"

¹²⁵ Ex parte Bengson, 2015 WL 6407898, slip op. at 3 (Patent Tr. & App. Bd. 2015)(Capp, APJ)(citing, inter alia, KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 417 (2007))("[As] to Appellant's argument regarding the motivation to combine references, we think the Examiner has supplied sufficient articulated reasoning with rational underpinning. In essence, the Examiner explains that Appellant's invention simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement. *** As explained by Appellant in the Background of the Invention section of the Specification, it was well known in the art for a selling agent to leave a property key in a lock box and then contact a buyer's agent after a showing and request feedback."); Ex parte Holder, 2007 WL 4470093 (Bd.Pat.App. & Interf. 2007) (Kerins, APJ) ("Appellants describe, in their "Background of the Invention", that rope light has been secured by fasteners to metal frames in creating 'artwork' or 'artistic shapes', as well as Christmas decorations, products that are in the same genre as the Liu and Hermsdorfer products. The substitution of a length of rope light for a length of string lights on the Hermsdorfer device is an obvious substitution of one known element for another, which would yield predictable results to persons of ordinary skill in the art. KSR at 1740.").

¹²⁶ Ex parte Bechtold, 2012 WL 3526822 (Bd.Pat.App. & Interf. 2012)(McKelvey, APJ)("One skilled in the art is not an automaton. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 421 (2007). Applicant seeks to pigeon-hole workers in this field to either [of two] environments. Based on the prior art cited by the Examiner, and the background of the invention it is manifest that the person having ordinary skill in the art is familiar with both environments.")(record citation omitted)).

¹²⁷ Ex parte Scott, 2009 WL 3089049 (Bd.Pat.App. & Interf. 2009)(Lucas, APJ)("We find that this claim limitation is merely a design choice over 'moving a cursor about the view' which is described in the *Background of the Invention* as 'more time consuming and requires additional user effort than pressing a mapped key.' Thus, the Specification itself confirms that 'a one of said plurality of keys is defined as a function key for moving among the plurality of views,' as

may show that the level of ordinary skill in the art is higher than argued by the inventor. 128

a. European Perspective of the Background of the Invention

It is well understood by domestic practitioners that a *Background of the Invention* may create patent validity problems for the patentee. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), and *Sanofi-Aventis Deutschland GmbH v. Glenmark Pharms. Inc.*, 748 F.3d 1354 (Fed. Cir. 2014), discussing the patentability problem created by identifying a "known problem"). In Europe, to the contrary, a *Background of the Invention* section is recommended under the local laws. Paul Cole, a leading comparative writer based in England, contrasts the European and American approaches to *Background of the Invention* draftsmanship:

"Many influential U.S. attorneys, but not all U.S. attorneys, now recommend an anecdotal approach in which the *Background* is of a general nature only, identifies to starting point in the prior art, and identifies no object or technical problem. * * *

"On the European view, one of the most important tasks in the *Background* section is to identify and discuss the closest prior art that provides a starting point for comparison with the subject-matter claimed, and possibly the earlier developments in the field of endeavor of the inventor that led up to that starting point. The selected starting point should be identified by a specific patent number, literature reference or other well-defined disclosure, so that the features that are clearly and

recited in claim 12, is merely a design choice in accordance with the Supreme Court's teachings in *KSR*. Accordingly, we find no error in the Examiner's analysis.")(internal citations omitted);

¹²⁸ Ex parte Falk, 2008 WL 4099096 (Bd.Pat.App. & Interf. 2008)(McKelvey, APJ)("The principal problem with [appellant]'s case is that it attributes almost no skill to a person skilled in the art. The *background of the invention* demonstrates quite the contrary. A person skilled in this art is not the automaton which [appellant] would like it to be. *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007) ('A person of ordinary skill is also a person of ordinary creativity, not an automaton.').").

unambiguously disclosed in that prior art, expressly or implicitly, can be identified."¹²⁹

b. Japanese Requirement to State "Problem" and "Solution"

Under the September 2015 English version of the Japan Patent Office *Examination Guidelines*, at least one technical "problem" should be solved by the invention which problem should be stated in the application. As noted below, however, there are loopholes to this requirement, particularly for chemical inventions.

The general requirement for a statement of a technical "problem" is stated as follows:

"It is required in normal cases that at least one technical problem that the claimed invention aims to solve be stated as "the problem to be solved by the invention" in the detailed description of the invention." ¹³⁰

Additionally, "[it is also] required in normal cases that how the problem has been solved by the claimed invention be explained as 'its solution' in the detailed description of the invention."¹³¹

However, if the "problem to be solved" can be understood by persons skilled in the art, given the overall specification and drawings, then it is unnecessary to state the "problem":

¹²⁹ Paul Cole, FUNDAMETALS OF PATENT DRAFTING, *The Background Section and the Closest Prior Art* 193, 200-201 (CIPA 2006).

¹³⁰ EXAMINATION GUIDELINES FOR PATENT AND UTILITY MODEL IN JAPAN, Part II, Chapter 1, Section 2, Ministerial Ordinance Requirement, § b(a), ¶ 1, Problem to be solved by the invention and its *solution*, p. 2 (Provisional Translation)(Japan Patent Office Sept. 2015).

¹³¹ *Id.* ¶ 2.

"[But], the 'problem to be solved by the invention' is not required to be explicitly stated in a case where a person skilled in the art can understand it without such an explicit statement, when taking into account the statements of the description and drawings, which include statements of prior art or advantageous effects of the invention, as well as the common general knowledge as of the filing (including a case where a person skilled in the art could comprehend the problem when considering prior art which falls within the common general knowledge). Also, the statement of the solution of the problem to be solved by the invention does not need to be provided in cases where a person skilled in the art would understand how the problem has been solved by a claimed invention by identifying technical problem in the absence of the explicit statement (for example, in a case where how the invention solved the technical problem can be understood by identifying the claimed invention in view of the statements of the embodiment, etc.)." ¹³²

There is a further set of loopholes to excuse the absence of a statement of the "problem", the last mentioned one excusing the absence of a "problem" for claims to a new chemical compound:

"Further, the technical problem does not need to be explicitly stated in a case where a technical problem is by nature not conceived for the invention such as the following item (i), (ii), etc.

"In addition, when the technical problem is not conceived as mentioned above, how the problem has been solved by the invention (i.e., its solution) is not necessary, either. This is because 'its solution' is only meaningful in connection with the technical problem, and how the technical problem was solved by the invention cannot be identified as long as the very technical problem remains unidentified."

- "(i) An invention based on an entirely new conception which is completely different from prior art.
- "(ii) An invention which is based on a discovery resulting from trials and errors (e.g., inventions of chemical compounds)." 133

¹³² *Id.* §b(b), pp. 2-3.

¹³³ *Id.*, § b(c), p. 3.

4. "Field of the Invention"

The first part of the *Manual*-proposed *Background of the Invention* is a discussion of the "field of the invention". This is an anachronistic provision that is designed to help the *classification* clerk or examiner determine the proper *classification* of the application for assignment to the appropriate examining division or group. Thus, under the *Manual*, the "field" portion of the *Background* section is "[a] statement of the field of art to which the invention pertains. This statement may include *a paraphrasing of the applicable U.S. patent classification definitions.*" *Id.*; emphasis supplied.

To the extent that the field of the invention identified in an application is "rocket science" does this mean that a worker skilled in the art is someone skilled in "rocket science"? Should this be an *admission* that the invention for *KSR* nonobviousness considerations is in the field of a "rocket scientist"? Assume, *arguendo*, that the patent includes a claim for an invention in both "rocket science" and "hybridomas". If "hybridomas" appear higher in the classification manual than "rocket science", then the "field of the invention" for classification purposes is "hybridomas".

Thus, the "field of the invention" is an annoying feature unique to the American *Rules of Practice in Patent Cases* that has everything to do with arbitrary classification rules and nothing to do with the relevant field of the worker skilled in the art. If anything, beyond creating *KSR* problems, the field of the invention creates another, finite time and expense problem for the applicant. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). (To the extent that it is *helpful* for

the Office in classifying patent applications it would be better to *eliminate* the Field of the Invention section and, instead, provide an *optional* box on the application filing cover sheet noted as: "Proposed official classification" (if known)".

The writer acknowledges that there are other views on whether the field of the invention should be recited in the application. A mainstream view is expressed by former Patent Office leader Stephen G. Kunin and his colleague.

a. Japan Identification of "Technical Field"

It is an explicit regulatory requirement in Japan that the "technical field" of the invention be stated: "It is required in normal cases that at least one technical field to which a claimed invention pertains be stated in the detailed description of the invention as a technical field to which an invention pertains."¹³⁶

¹³⁴ Professor Joshua Sarnoff explains a contrary view:

[[]He] emphasize[s] the need for the applicant to explicitly consider what the field of his technology is — as the perspective of the [person having ordinary skill in the art] is supposed to govern construction, the applicant needs to identify and (if helpful) shape the choice of field of technology for construction in the specification (including by providing the equivalent of a definition — an explicit statement of what the applicant thinks the field is). This goes against some views of good prosecution, based on identifying art for the analogous arts test or otherwise making more admissions than needed. [I]t is increasingly important and good drafting practice. [See Edward Manzo & Joshua Sarnoff, in Edward Manzo, PATENT CLAIM CONSTRUCTION IN THE FEDERAL CIRCUIT § 0:2 (2015 ed.), (discussing importance of the PHOSITA's (objective) perspective)].

Joshua Sarnoff, Private Communication (May 18, 2015).

¹³⁵ Stephen G. Kunin & Andrew K. Beverina, *KSR's Effect on Patent Law*, 106 Mich. L. Rev. First Impressions 50, 53 (2007)("[A]pplicants should avoid characterizing the field of the invention and avoid identifying problems recognized in the art to be solved in patent applications. An adverse party can use such statements against the patentee during litigation.").

¹³⁶ EXAMINATION GUIDELINES FOR PATENT AND UTILITY MODEL IN JAPAN, Part II, Chapter 1, Section 2, Ministerial Ordinance Requirement, § a, *Technical field to which an invention pertains*, p. 2 (Provisional Translation)(Japan Patent Office Sept. 2015).

There are two exceptions to this requirement.

First, if the technical field is understood without an explicit statement of technical field, then the technical field need not be set forth. *Id.* ("[T]he 'technical field to which an invention pertains' is not required to be explicitly stated if *a person skilled in the art can understand it* without such explicit statements when taking into account the statements of the description and drawings, as well as the common general knowledge as of the filing.")(emphasis added).

Second, the technical field need not be stated in the case of "an entirely new conception[.]" *Id.* ("[But], ...in cases where the invention does not pertain to existing technical fields such as an invention developed based on an entirely new conception which is completely different from prior art, it suffices [insofar as the requirement for the technical field to which an invention pertains] that the statement[] of the new technical field developed by the invention be provided and an application for such an invention does not need to state the existing technical fields.")

b. Consequences for Misidentification of the "Field..."

What is the net effect on factual inquiries of an admission at to the "field of the invention" as the field of invention to claim construction, *see*, *e.g.*, *Phillips v*. *AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005)(en banc)(Bryson, J.); support, *see*, *e.g.*, *Elcommerce.Com*, *Inc. v. Sap AG*, 745 F.3d 490 (Fed. Cir. 2014), or an obviousness inquiry or obviousness *.see*, *e.g.*, *Outside the Box Innovations*, *LLC v. Travel Caddy*, *Inc.*, 695 F.3d 1285 (Fed. Cir. 2012)(per curiam).

Per the *Manual*, the first element of a *Background of the Invention* is stated as follows:

"(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions. The statement should be directed to the subject matter of the claimed invention." MPEP § 608.01(c), *Background of the Invention* [MPEP 8th ed. 2004].

The consequences for a misidentification of the "field of the invention" may be seen from the case law of the Federal Circuit. As explained by the *en banc* Court in *Phillips*, the "field of the invention" is critical to claim construction: "It is the person of ordinary skill in *the field of the invention* through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention—the inventor's lexicography —must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology." *Phillips v. AWH*, 415 F.3d at 1313.

Thus, "[i]n construing patent claims, the court must apply the same understanding as that of persons knowledgeable in the *field of the invention*." *Merck & Co., Inc. v. Teva Pharmaceuticals USA, Inc.*, 347 F.3d 1367, 1370 (Fed. Cir. 2003)(emphasis added). *See also Hoechst Celanese Corp. v. B.P. Chems. Ltd.*, 78 F.3d 1575, 1578 (Fed.Cir.1996) ("A technical term used in a patent document is interpreted as having the meaning that it would be given by persons experienced in the *field of the invention*, unless it is apparent from the patent and the prosecution history that the inventor used the term with a different meaning.")(emphasis added); *Toro Co. v. Consolidated Industries, Inc.*, 199 F.3d 1295, 1299 (Fed. Cir.,

1999)(Newman, J.)("The district court applied the general rule t"Abstract of the Disclosure" that words in patent claims are given their ordinary meaning in the usage of the field of the invention, unless the text of the patent makes clear that a word was used with a special meaning. See *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473 1477 (Fed. Cir. 1998) ('It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field."); *Hoechst Celanese Corp. v. B.P. Chems. Ltd.*, 78 F.3d 1575 1578 (Fed. Cir. 1996) ('A technical term used in a patent document is interpreted as having the meaning that it would be given by persons experienced in the field of the invention, unless it is apparent from the patent and the prosecution history that the inventor used the term with a different meaning.'); *Carroll Touch, Inc. v. Electro Mechanical Sys., Inc.*, 15 F.3d 1573 1577 (Fed. Cir. 1993).")

The "field of the invention" is also relevant in determining support for a claimed invention under 35 U.S.C.A. § 112(a), 112(6). As explained in *Elcommerce.Com*, 745 F.3d at 501:

"'[U]nder 35 U.S.C. § 112 ¶ 2 and ¶ 6 ... 'a means-plus-function clause is indefinite if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim.' *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed.Cir.2012) (quoting *AllVoice Computing PLC v. Nuance Commc'ns, Inc.*, 504 F.3d 1236, 1241 (Fed.Cir.2007)). 'The amount of detail that must be included in the specification depends on the subject matter that is described and its role in the invention as a whole, in view of the existing knowledge in the field of the invention.' *Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1385 (Fed.Cir.2011)."

If a particular prior art is or is not within the "field of the invention" may tilt the factual inquiry into nonobviousness one way or the other. See, e.g., Outside

the Box, 695 F.3d at 1295)("Obviousness is a question of law, KSR International Co. v. Teleflex Inc., 550 U.S. 398 (2007), based on four factual inquiries: the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the field of the invention, and any relevant objective considerations. Id. at 406 (citing Graham v. John Deere Co., 383 U.S. 1, 17–18 (1966)).")(emphasis added).

C. "Abstract of the Disclosure" 137

The *Abstract of the Disclosure* was created based upon the (unproven) assumption that inventors could not understand patent claims, so that the *Abstract of the Disclosure* would be a *substitute* for the inventive community to understand patents. There were two flaws with this reasoning. First of all, the *Abstract of the Disclosure* does not help *define* the scope of protection. Second, and more importantly, the *Abstract of the Disclosure* was introduced prior to the widespread use of whole text internet searching: Today, whether a scientist, engineer or any member of the public, one wishing to look for patents of relevance to a particular project will conduct a Boolean search where it does little good to have a paraphrased version of the claims to seek out what is being claimed.

In most cases, the wording of the claims best describes the invention for anyone – whether the public or a patent practitioner. The *Manual* provides guidance that makes absolutely no sense. While the guidance is more fully quoted at the end of this section, several snippets are cited, here, that tell the whole story:

¹³⁷ This section has been adapted from Wegner, FIRST TO FILE PATENT DRAFTING: A PRACTITIONER'S GUIDE, § 7:25 to § 7:28 and § 9:3 to § 9:8, *Background of the Invention* (Thomson Reuters 2017), which is also available on Westlaw. Footnote material has been either deleted or is integrated into the text in brackets.

The public is told that that it should *not* focus on the wording of the claims but instead should explain "the nature and gist of the technical disclosure[.]" What, precisely is the "nature" or "gist" of the invention? Why, precisely should the *Abstract*... teach the "nature" or "gist" of the invention?

Furthermore, that the emphasis of the *Abstract*... is *not* on the invention but rather the "technical disclosure": Thus, the *Manual* states that "[a] patent abstract is a concise statement of the technical disclosure of the patent[.]"

The reader is told not to use "[t]he form and legal phraseology of ten used in patent claims" and, indeed, not to recite the claimed invention but, instead, "[t]he abstract should sufficiently describe the disclosure[.]"

The *Manual* thus provides the following guidance:

"I. GUIDELINES FOR THE PREPARATION OF PATENT ABSTRACTS

"A. Background

"The content of a patent abstract should be such as to enable the reader thereof, regardless of his or her degree of familiarity with patent documents, to determine quickly from a cursory inspection of *the nature and gist of the technical disclosure* and should include that which is new in the art to which the invention pertains.

"B. Content

- "A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains.
- "If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure.
- "If the patent is in the nature of an improvement in old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement.

"If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

"With regard particularly to chemical patents, for compounds or compositions, *the general nature of the compound or composition should be given* as well as the use thereof....

"C. Language and Format

"The abstract should be in *narrative form* and generally limited to a single paragraph within the range of 50 to 150 words. *** *The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.* The abstract should sufficiently *describe the disclosure* to assist readers in deciding whether there is a need for consulting the full patent text for details. ***

"D. Responsibility

"Preparation of the abstract is the responsibility of the applicant. Background knowledge of the art and an appreciation of the applicant's contribution to the art are most important in the preparation of the abstract. ***",138

§ 7:26. "Abstract of the Disclosure" -- No Penalty for an Abstract that Defines the Invention

There is no penalty against an applicant who files a proper statement of the *claimed invention* as the *Abstract of the Disclosure*. At worst, the Examiner may require a new *Abstract*....

§ 7:27. "Abstract of the Disclosure" – Abstract-Created Judicially Narrowed Claim Interpretation

Where the patent applicant drafts an *Abstract*... in accordance with the *Manual* different language will be used to describe the invention which can be used to *narrow* the effective scope of the claimed invention. *See Hill-Rom Co. v. Kinetic Concepts, Inc.*, 209 F.3d 1337, 1341 n.* (Fed. Cir. 2000)(Bryson, J.); *Tate Access Floors, Inc. v. Maxcess Technologies, Inc.*, 222 F.3d 958, 965 n.2 (Fed. Cir. 2000).

¹³⁸ MPEP § 608.01(b), Abstract of the Disclosure (emphasis added).

§ 7:28. "Abstract of the Disclosure" -- PCT Abstract Information

It is manifest that there is no close supervision of the *Manual* which in its nearly 3700 pages offers diametrically opposing viewpoints. This is no better illustrated than in the statements in one portion of the *Manual* that say that the "gist" of the invention must be disclosed, balanced by completely opposite statements elsewhere.

X. CONCLUSION

Providing patent applicants with the right to *expressly define and limit* a particular term in a claim will provide the prospective patentee with the possibility to present a definition that both saves the patentee from an invalidity ruling while also helping the industry to better understand and benefit from a narrower definition of the claimed subject matter.