

March 2016

Construing Patent Claims In Light of the Specification Versus Importing Claim Limitations from the Specification: Is There Any Difference?

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**CONSTRUING PATENT CLAIMS IN LIGHT OF THE
SPECIFICATION VERSUS IMPORTING CLAIM
LIMITATIONS FROM THE SPECIFICATION:
IS THERE ANY DIFFERENCE?**

*Rob Harmer*¹

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I. INTRODUCTION

Patents are the foundation of a country’s “knowledge economy.”²
Patent law may have a simple goal of encouraging the production and

1. JD Candidate, May 2010, Michigan State University College of Law. My special thanks go out to Professor Sean Pager, Ms. Gigette Bejin, Esq., Ms. Lindsey Bosch, and Mr. Gerald Aben for their invaluable help with this work.

2. Yvonne A. Tamayo, *Patently Absurd: Expanded State Immunity in the Global Knowledge Market*, 6 VA. J.L. & TECH. 1 (2001).

dissemination of technological information,³ but its impact is massive, having nearly a \$3 billion effect on the United States' economy.⁴ That estimate, which may be conservative, appears to be increasing based on the growth of patent law in recent decades.⁵ Scholars frequently describe patents as an exchange between the government and an inventor in which the government, in exchange for the public disclosure of the invention, grants the inventor the right to exclude others from using, making, selling, offering to sell, or importing the invention.⁶ More precisely, the Patent Act of 1952⁷ set forth several notable requirements:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.⁸

Patent claims, which follow the specification, define the inventor's property rights and delineate what the patentee may exclude all others from making and/or using.⁹ The scope of the claims sets the boundaries of the right that the patentee is entitled to enforce.¹⁰ In general, a patent

3. See *Brenner v. Manson*, 383 U.S. 519, 533 & n.21 (1966) (explaining how the patent system rewards inventors for disclosing technological advancements).

4. See Shubha Ghosh & Jay Kesan, *What Do Patents Purchase? In Search of Optimal Ignorance in the Patent Office*, 40 HOUS. L. REV. 1219, 1222-23 (2004) (citing Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1499, 1502, 1507, 1509 (2001)) (discussing the extravagant costs and potential reform strategies in the patent system).

5. Timothy B. Dyk, *A Review of Recent Decisions of the United States Court of Appeals for the Federal Circuit: Does the Supreme Court Still Matter?*, 57 AM. U. L. REV. 763, 764-65 (2008) (explaining that since the creation of the Federal Circuit in the early 1980s, the Supreme Court has continually granted an increasing number and percentage of writs of certiorari to patent cases). See also John M. Golden, *"Patent Trolls" and Patent Remedies*, 85 TEX. L. REV. 2111, 2111-12 & n.3 (2007) (noting, in 2007, how the number of United States patents issued has recently seen a larger yearly increase than the real gross domestic product).

6. See 35 U.S.C. § 154(a)(1) (2006) (stating the provisional rights of a patentee). See also Stephanie A. Yonker, *Post-Phillips Claim Construction: Questions Unresolved*, 47 IDEA 301, 301 (2007) (discussing one of the incentives inventors have in disclosing their innovations to the public via the patent system); Michael Buschbach, Note, *An Improved Framework for Analyzing "Substantially Similar" Patent Claims with Respect to the Inequitable Conduct Defense*, 10 MINN. J.L. SCI. & TECH. 325, 326 (2009) (explaining the grant of property in exchange for disclosure of the invention).

7. Act of July 19, 1952, 66 Stat. 792 (codified as amended at 35 U.S.C. §§ 1-376 (2006)) (Patent Act).

8. 35 U.S.C. § 112 (2006).

9. Kelly C. Mullally, *Patent Hermeneutics: Form and Substance in Claim Construction*, 59 FLA. L. REV. 333, 349 (2007) (discussing how claims are primary indicia of the property rights of a patentee).

10. *Id.*

specification includes a background section, a summary of the invention, a brief description of any drawings, and, most importantly, a description of the invention.¹¹

Patent litigation often turns on the meaning of words in patent claims.¹² Though litigants, licensees, assignees, and examiners at the U.S. Patent and Trademark Office (PTO) all must interpret, or construe, patent claims at some point in the lifetime of a patent, judges have the final say as to the scope and meaning of the words in patent claims.¹³ Judges' interpretive methodologies raise questions about the relationship between the claims and the specification. The Federal Circuit, having exclusive appellate jurisdiction over patents, has established that courts should construe patent claims "in light of" the patent specification.¹⁴ On the other hand, a cardinal rule of patent law forbids importing limitations from the specification into patent claims.¹⁵ The problem is that construing claims in light of the specification often inherently involves limiting the scope of the claims from the substance within the specification. As one can imagine, courts have struggled to reconcile these conflicting demands.¹⁶ This struggle has led to uncertainty and instability in patent law.¹⁷ The ongoing presence of forum shopping in plaintiff-friendly districts, such as the Eastern District of Texas,¹⁸ and the Federal Circuit's abnormally high reversal rates suggest that the

11. ALAN L. DURHAM, *PATENT LAW ESSENTIALS* 18-19 (1999) (mentioning that the background section of the specification discusses the state of technology before the invention).

12. See David Krinsky, *The Supreme Court, Stare Decisis, and the Role of Appellate Deference in Patent Claim Construction Appeals*, 66 MD. L. REV. 194, 194 (2006) (noting that claim construction is imperative to almost all patent cases).

13. See, e.g., *Roberts v. Sears, Roebuck & Co.*, 723 F.2d 1324, 1333 (7th Cir. 1983) (noting a function of the PTO and then proceeding to note how claim construction is "ultimately the responsibility of the trial judge").

14. *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1370 (Fed. Cir. 2003) (acknowledging that courts must construe claims "in light of the specification").

15. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1319-20 (Fed. Cir. 2005) (en banc) (quoting *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001)) (articulating that a "cardinal sin" of patent law is reading limitations into the claims from the specification).

16. See *infra* Part III (illustrating with reference to caselaw the problem between the claim construction canons).

17. See Mullally, *supra* note 9, at 343 (discussing the drawbacks to an unsettled approach to claim construction).

18. See Xuan-Thao Nguyen, *Justice Scalia's "Renegade Jurisdiction": Lessons for Patent Law Reform*, 83 TUL. L. REV. 111, 129 (2008) (indicating a 400 percent increase in patent cases in the "Rocket-Docket" Eastern District of Texas between 1995-2000 and 2000-2005). See also Srikanth K. Reddy, Comment, *Easing the Claim Construction Blow with Early-Discovery Markman Hearings that Are Appealable to the Federal Circuit on an Interlocutory Basis*, 5 NW. J. TECH & INTELL. PROP. 118, 119 (2006) (mentioning the ongoing presence of forum shopping in patent law).

patent system needs more uniformity and certainty.¹⁹ The time has come for patent law to dispense with the fictitious restriction against limiting patent claims according to the specification: Courts should construe patent claims and incorporate limitations as needed in light of the specification as a whole.

This Comment proceeds in three parts. Part II discusses the purpose of claim construction and the components of a patent application most relevant to construing patent claims. This Part also discusses the standard of appellate review for claim construction, the sources of evidence used in construing patent claims, and the two conflicting claim construction canons. Part III highlights the conflict between the canons of avoiding importing claim limitations from the specification and construing patent claims in light of the specification. Again, when construing patent claims in light of intrinsic evidence, courts often inherently import limitations from the same intrinsic evidence. Finally, Part IV presents a solution that reduces the two conflicting claim construction canons to a single, lucid principle that implements the objectives of each canon. To help illustrate, this Part then applies the proposed solution to *Renishaw PLC v. Marposs Societa' per Azioni*²⁰ and *Nystrom v. TREX Co.*²¹

II. THE ABCS OF PATENT LAW

Like many other areas of the law, patent law encompasses a vast spectrum of subject matter. This Part introduces areas of patent law most relevant to the discussion in this Comment. These areas include the basics of claim construction, patent applications, appellate review of claim construction, competing approaches to claim construction, and the restriction against importing limitations from the specification. Of the several parts of a patent, the claims are critical because they serve as the metes and bounds of the patentee's property rights.²²

19. See Christian A. Chu, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1096-97 (2001) (noting an increase in claim construction disapprovals since 1998). See also *infra* note 79.

20. 158 F.3d 1243 (Fed. Cir. 1998).

21. 424 F.3d 1136 (Fed. Cir. 2005).

22. See, e.g., *Standard Mfg. Co. v. United States*, 25 Cl. Ct. 1, 63 (1991) (referring to the claims as the "metes and bounds of the invention").

A. *The Birds and Bees of Claim Construction*

Most words in the English language have a range of meanings. For example, patent practitioners often use the word “member” in patent claims.²³ Depending on the context in which it is used, “member” could mean a linkage in a prosthetic arm, or a support for a bicycle seat, or a leg on a stool, and so on. Claim construction refers to the process by which courts interpret the meaning of terms, such as “member” in the preceding example, contained in one or more patent claims.²⁴ Since patent litigation often depends on the meaning and scope of particular claim terms, courts frequently construe claims when a patentee attempts to assert his or her right to exclude another party from practicing the invention.²⁵

When the scope of a patent is disputed today, courts first look to the claims to ascertain the scope of the invention, and hence the patentee’s rights.²⁶ The written description portion of a patent “does not delimit the right to exclude.”²⁷ The claims are the part of the patent that serves this

23. See, e.g., U.S. Patent No. 4,259,072 col.12 l.58 (filed July 25, 1979) (claiming “a composite structural member”); U.S. Patent No. 6,413,611 col.11 l.12 (filed May 1, 2000) (claiming a “structural member”).

24. See *SuperGuide Corp. v. DirecTV Enters., Inc.*, 169 F. Supp. 2d 492, 496 n.1 (W.D.N.C. 2001) (defining claim construction).

25. See *Renishaw PLC*, 158 F.3d at 1248 (mentioning that the scope of the claims defines the extent of the right to exclude). See also John C. Evans, *Addressing Default Trends in Patent-Based Section 337 Proceedings in the United States International Trade Commission*, 106 MICH. L. REV. 745, 757 (2008) (alleging that claim construction is a major aspect of patent infringement litigation). In asserting this property right, a patentee generally alleges that the adverse party has infringed by either making, using, selling, or importing the patented invention during the term of the patent. 5 DONALD S. CHISUM, *CHISUM ON PATENTS* § 16.02 (2008) (discussing 35 U.S.C. § 271(a) (2006)). Surprisingly, the earliest patent acts did not require claims to be part of a patent application. E.g., Act of Apr. 10, 1790, ch. 7, 1 Stat. 109 (repealed 1793); Act of Feb. 21, 1793, ch. 11, 1 Stat. 318 (repealed 1836). Despite the absence of any requirement, nineteenth century patents frequently included statements “claiming” all rights to the disclosed technology. See John M. Golden, *Construing Patent Claims According to their “Interpretive Community”: A Call for an Attorney-Plus-Artisan Perspective*, 21 HARV. J.L. & TECH. 321, 350 (2008) (discussing how patent practitioners had a large part in developing the current patent “claiming” convention). Such statements gradually became more substantive, particularly following the Patent Act of 1870 which required applicants to “distinctly claim” the technological contribution. Act of July 8, 1870, ch. 230, § 26, 16 Stat. 198, 201. Shortly thereafter, the Supreme Court interpreted the Act to require a patent applicant to make a “distinct and specific statement of what he claims to be new, and to be his invention.” *Merrill v. Yeomans*, 94 U.S. 568, 570 (1876).

26. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (explaining a “bedrock principle” of patent law to be that patent claims define the invention and the patentee’s rights to exclude others from making, using, selling, etc.).

27. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (distinguishing the purpose of the claims versus that of the specification).

purpose.²⁸ Patent claims define the most important aspects of an invention.²⁹ Since claims are a succinct declaration of the invention, claim construction determines the scope of claim language without varying its scope.³⁰ In other words, claim construction is a tool for determining the actual meaning of claim language.³¹ The actual meaning of a particular claim term depends on (1) the inventor's intentions at the time of drafting and (2) the agreed upon meaning reached with the PTO.³² Since interpreting patent claims ultimately defines the scope of the patented invention, some scholars believe the phrase "patent construction" is more accurate than "claim construction" in describing this process.³³

At times, the precise meaning of an elementary term can control even technical or extended patent litigation. The *Renishaw PLC v. Marposs Societa' per Azioni* case illustrates this principle.³⁴ Renishaw attempted to assert its U.S. Patent No. 5,491,904 (the '904 Patent) for a touch probe against a similar product by Marposs.³⁵ The Renishaw touch probe featured a stylus for sensing the position of a workpiece, with the probe generating a signal when the stylus contacted such workpiece.³⁶ In this regard, the Marposs touch probe was substantially similar.³⁷ The relevant difference was that after the stylus of the Marposs touch probe contacted a workpiece, the probe performed an additional step before generating a signal.³⁸ Even though the probes

28. *Id.* See also *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1347 (Fed. Cir. 1998) (clarifying that the claims define the scope of the patentee's rights, not the written description).

29. See Soonwoo Hong, *Claiming What Counts in Business: Drafting Patent Claims with a Clear Business Purpose*, World Intellectual Property Organization (WIPO), http://www.wipo.int/sme/en/documents/drafting_patent_claims.htm (last visited Jan. 9, 2009) (suggesting claims to be the "heart of a patent").

30. *Union Oil Co. of Cal. v. Atl. Richfield Co.*, 208 F.3d 989, 995 (Fed. Cir. 2000) (citing *Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1580 (Fed. Cir. 1991)) (explaining how claim construction is helpful in expounding, but not altering, "normally terse claim language").

31. See ROBERT L. HARMON, *PATENTS AND THE FEDERAL CIRCUIT* § 6.1 (6th ed. 2003).

32. See Li-Hua Weng, *Preamble Interpretation: Clarifying the "Giving Life, Meaning and Vitality" Language*, 11 B.U. J. SCI. & TECH. L. 77, 84 (2005) (discussing the purpose and goal of judicial claim construction).

33. See, e.g., *Golden, supra* note 25, at 356 (explaining how early patent claims were rather dependent upon the specification).

34. 158 F.3d 1243 (Fed. Cir. 1998).

35. *Id.* at 1245.

36. U.S. Patent No. 5,491,904 col.10 ll.32-42 (filed Apr. 21, 1995).

37. See *Renishaw PLC*, 158 F.3d at 1247 (comparing the Renishaw and Marposs touch probes).

38. See *id.* (discussing how the stylus in the Marposs touch probe does not directly proceed to contact a signal generating switch when the stylus contacts a workpiece).

incident to this litigation were capable of detecting distances in the order of one millionth of a meter or less,³⁹ infringement depended solely on the meaning of the word “when.”⁴⁰ Like *Renishaw*, the *Nystrom v. TREX Co.* litigation also centered in large part on the meaning of a seemingly basic word: “board.”⁴¹ Nystrom argued that “board” in claim one included boards made of composite materials.⁴² Relying on intrinsic evidence, TREX argued that “board” was limited to sawn lumber or boards made of wood.⁴³ Both *Renishaw* and *Nystrom* are helpful in demonstrating the proposed solution.⁴⁴

B. *The Ingredients to a Patent Application*

Though amended in 1999, the Patent Act of 1952 is the current legislation governing patent law.⁴⁵ According to Sections 101 and 103 of the Patent Act, the subject matter of the invention must be nonobvious, useful, and novel.⁴⁶ Though of similar importance, Section 112 of the Patent Act pertains more closely to the manner in which the patentee discloses the invention.⁴⁷ Section 112 includes numerous requirements such as definiteness and best mode, but it most notably contains the written description, enablement requirements, and claim regulations.⁴⁸ Taken together, these requirements assist in providing the substantive framework that a court may ultimately reference when construing claim language.

39. *Id.* at 1245 (noting how the precision of the touch probes was in the magnitude of a micron).

40. *Id.* at 1250-51 (discussing the appeal of the lower court’s claim construction of the term “when”).

41. 424 F.3d 1136, 1142 (Fed. Cir. 1995) (stating the lower court’s claim construction of “board” and each litigant’s position regarding that construction on appeal).

42. *Id.*

43. *Id.*

44. *See infra* Section IV.D.

45. Andrew A. Schwartz, *The Patent Office Meets the Poison Pill: Why Legal Methods Cannot Be Patented*, 90 J. PAT. & TRADEMARK OFF. SOC’Y 194, 198 (2008) (discussing the Patent Act).

46. *See* 35 U.S.C. § 101 (2006) (indicating that an inventor may obtain a patent for inventing or improving “any new and useful process, machine, manufacture, or composition of matter”).

47. *See generally* 35 U.S.C. § 112 (2006).

48. *Id.* ¶ 1-2 (stating several of the substantive requirements of a patent specification).

1. The Written Description Requirement

In addition to the other Section 112 requirements,⁴⁹ a patent application must contain a written description that fully yet concisely details the manner in which one could make and use the invention.⁵⁰ One of the primary reasons for the written description requirement is to inform the patent holder and the public as to what the patentee owns *and* what the patentee does not own based on the patent claims.⁵¹ In exchange for disclosing such information to the public to advance technology and various arts,⁵² the government rewards the patentee with a “temporary monopoly.”⁵³ This allows the patentee to exclude others from practicing the invention for the duration of the patent.⁵⁴ Additionally, the written description requirement serves the fundamental purpose of conveying that the patentee has invented the claimed technology.⁵⁵

To fulfill the written description requirement, a patentee must disclose enough information such that “one skilled in the art”⁵⁶ would believe that the inventor had possession of the invention.⁵⁷ Simply

49. *Id.* (referring in part to the enablement and best mode requirements and referring also to a requirement calling for at least one claim that distinctly claims the subject matter that the patent applicant believes to be his or her invention).

50. *Id.*

51. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731 (2002) (citing *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150 (1989)) (noting that patent law attempts to appease both (a) patentees, who have come to expect certain benefits for disclosing their inventions, and (b) the public, which needs incentive to research, create, and invent beyond their scope of existing patentees’ rights).

52. *See* U.S. CONST. art. I, § 8, cl. 8.

53. *See* 35 U.S.C. § 154(a)(1) (2006) (indicating that such a monopoly includes the right to exclude others from practicing the invention in the United States for a term of years).

54. *Compare id.* § 154(a)(2) (2006) (specifying that patent rights begin when a patent issues and end twenty years after the date the application was filed in the U.S.) *with id.* § 154(c)(1) (2006) (“The term of a patent that is in force on or that results from an application filed before the date that is 6 months after [June 8, 1995,] the date of the enactment of the Uruguay Round Agreements Act[,] shall be the greater of the 20-year term . . . or 17 years from grant . . .”). *But see id.* § 173 (2006) (stating that design patents have a fourteen year term that starts on the date of grant).

55. *In re Barker*, 559 F.2d 588, 592 (C.C.P.A. 1977) (indicating that a primary goal of the written description requirement is to communicate that the applicant invented the claimed subject matter).

56. 35 U.S.C. § 112 (2006) (stating that the specification of a patent must contain a written description to enable “any person skilled in the art” to practice that invention).

57. U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 2163 (8th ed., 6th rev. 2007) (MPEP) (citing *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed. Cir. 2003)) (discussing several instances in which the Federal Circuit applied the written description requirement).

showing possession, however, may not always suffice.⁵⁸ In 2002, for example, the Federal Circuit found that possession and/or reduction to practice will not always satisfy the written description requirement unless the specification contains an “adequate description” of the invention.⁵⁹ Though it is one of many requirements, the written description demands substance.⁶⁰ Seeing that no rigid formula exists for the written description requirement, the Federal Circuit has invalidated many patent claims for failing to meet the requirement.⁶¹ In light of this, some patent drafters may err on the side of over-disclosure to fulfill this requirement. While such abundant disclosure is helpful in overcoming the written description requirement, the same approach, unless made in methodical fashion, can hurt the patentee during litigation.⁶²

2. The Enablement Requirement

Another guidepost of Section 112 is the enablement requirement.⁶³ It necessitates that the specification enable a skilled artisan to make and use the invention.⁶⁴ Even though this requirement appears straightforward, courts have had trouble articulating a uniform standard of enablement from the Code. In *In re Wands*, the Federal Circuit described enablement such that those in the art should not have to perform “undue experimentation” after reading the specification to make

58. See *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 969 (Fed. Cir. 2002). See also *MPEP*, *supra* note 57, at § 2164 (citing *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)) (articulating that the reach of the written description requirement goes beyond simply explaining how to “make and use” the invention).

59. *Enzo*, 323 F.3d at 969.

60. See Guang Ming Whitley, Comment, *A Patent Doctrine Without Bounds: The “Extended” Written Description Requirement*, 71 U. CHI. L. REV. 617, 619 (2004) (discussing how the Federal Circuit uses the requirement of a written description as “a substantive test”). See also *Technical Concepts, L.P. v. Cont’l Mfg. Co.*, No. 92 C 7476, 1994 WL 113072, at *2 (N.D. Ill. 1994) (referring to the written description requirement as a “substantive provision”).

61. See, e.g., *Noelle v. Lederman*, 355 F.3d 1343, 1349 (Fed. Cir. 2004) (finding that a patentee who claimed an antibody according to its binding affinity to an inadequately described antigen did not sufficiently support the patent claim and stating that the patentee should have “disclosed a ‘fully characterized antigen,’ either by its structure, formula, chemical name, or physical properties, or by depositing the protein in a public depository”); *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479-80 (Fed. Cir. 1998) (finding numerous claims invalid because the original disclosure, contrary to the claims, identified that the console was the only feasible place to locate the controls); *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1566-67 (Fed. Cir. 1997) (invalidating a claim since the description of deoxyribonucleic acid (DNA) in the specification was inadequate).

62. See *infra* Section II.E (discussing the repercussions of over-disclosure).

63. 35 U.S.C. § 112 ¶ 1 (2006) (stating the enablement requirement for patents).

64. *Id.*

and use the invention.⁶⁵ The Federal Circuit went so far as to announce eight factors, now referred to as the “*Wands* factors,” to help assess whether undue experimentation was required.⁶⁶ But even with the *Wands* factors in place, the measure of undue experimentation has not exactly produced harmonious results.⁶⁷ Additionally, the court has found that an enabling specification must describe an invention of practical utility.⁶⁸ Enablement determinations, while made in retrospect according to the state of the art at the time of filing, can even depend on the position a party takes during litigation.⁶⁹ In *Liebel-Flarsheim Co. v. Medrad, Inc.*, for example, the patentee originally convinced the court to adopt a broad claim construction that included injectors without pressure jackets.⁷⁰ Subsequent litigation led the Federal Circuit to find that the specification did not enable injectors without pressure jackets, as broadly construed in prior litigation.⁷¹

65. 858 F.2d 731, 737 (Fed. Cir. 1988) (citing *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986)).

66. To help assess whether the specification has eliminated the need for undue experimentation, the Federal Circuit announced factors including:

- (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

Id. But see *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1213 (Fed. Cir. 1991) (finding that use of the *Wands* factors is not required, but merely illustrative).

67. See, e.g., *PPG Indus., Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1564 (Fed. Cir. 1996) (finding that the required experimentation should not be “unduly extensive,” but yet the use of flawed testing equipment could be enabling); *Genentech, Inc. v. Novo Nordisk, A/S*, 108 F.3d 1361, 1366 (Fed. Cir. 1997) (stating that a failure to disclose a “specific starting material” or the requisite conditions for performing a process indicate that undue experimentation is required); *White Consol. Indus., Inc. v. Vega Servo-Control, Inc.*, 713 F.2d 788, 790-92 (Fed. Cir. 1983) (finding that up to two years worth of experimentation just to practice the invention is undue experimentation).

68. See 35 U.S.C. § 101 (2006). See also *In re Fisher*, 421 F.3d 1365, 1378 (Fed. Cir. 2005) (finding it well known that the enablement requirement includes the utility requirement of Section 101); *In re Ziegler*, 992 F.2d 1197, 1200 (Fed. Cir. 1993) (concluding that Section 112 incorporates the requirement of Section 101 that a specification detail “a practical utility for the invention”).

69. See *Enzo Biochem, Inc. v. Calgene, Inc.*, 188 F.3d 1362, 1371-72 (Fed. Cir. 1999) (stating the context in which courts should make enablement assessments).

70. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 908-09 (Fed. Cir. 2004) (*Liebel I*) (finding that the invention was not limited to injectors that have pressure jackets).

71. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371 (Fed. Cir. 2007) (*Liebel II*). Acknowledging that the patentee did not enable the entire scope of the claim construction that was previously urged, the Federal Circuit stated:

We have previously construed the claims of the front-loading patents such that they are not limited to an injector with a pressure jacket, and therefore the full scope of the claimed inventions includes injectors with and without a pressure jacket. That full scope must be enabled, and the district court was correct that it was not enabled.

Id. at 1378-79. See also *In re Moore*, 439 F.2d 1232, 1236 (C.C.P.A. 1971) (noting that the urged claim scope should be proportional to the scope of the enabled subject matter).

Like the written description requirement, the conditions for enablement have also varied.⁷² On occasion, courts have interpreted enablement narrowly.⁷³ Due to the desire to overcome a relatively vague standard, it is conceivable that many patent practitioners err on the over-inclusive side of disclosure to fulfill the enablement requirement. Such a technique can hurt a patentee during litigation because it provides more substance from which the court may narrow the scope of the invention.

C. *The Standard of Appellate Review for Claim Construction*

In *Markman v. Westview Instruments, Inc.*, the Supreme Court reasoned that judges are better equipped than juries to construe patent claims.⁷⁴ The Court also hinted that claim construction was a matter falling “somewhere between a pristine legal standard and a simple historical fact.”⁷⁵ The Federal Circuit interpreted *Markman* to mean that the Federal Circuit should review the claim construction of a district court *de novo*, including the underlying facts.⁷⁶ As a result of *Markman*, district court judges appear to be deciding more claim construction cases on summary judgment, which means district court judges have less overall time to contemplate proper claim meaning.⁷⁷

Many have criticized the Federal Circuit’s interpretation of *Markman*,⁷⁸ claiming that *de novo* review of claim construction

72. See *supra* notes 65-71 and accompanying text (mentioning numerous standards employed for assessing enablement).

73. See, e.g., *Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1374 (Fed. Cir. 2005) (citing *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1259-60 (Fed. Cir. 1999)) (indicating the possibility that merely a background section of a patent application *could* fulfill the enablement requirement).

74. 517 U.S. 370, 379-82 & n.5 (1996) (discussing the historical practice in which judges, not juries, would construe legal documents) (noting the absence of any established practice in which juries interpret patent claims).

75. *Id.* at 384 n.10, 385-88 (quoting *Miller v. Fenton*, 474 U.S. 104, 114 (1985)) (finding claim construction to be a matter of law exclusively within the authority of the court).

76. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1451 (Fed. Cir. 1998) (en banc) (Rader, J., dissenting in part, concurring in the judgment, joining in part, and writing the opinion) (finding the *de novo* standard of review appropriate for the legal issue of claim construction).

77. See William F. Lee & Anita K. Krug, *Still Adjusting to Markman: A Prescription for the Timing of Claim Construction Hearings*, 13 HARV. J.L. & TECH. 55, 59-60 (1999). See also Robert C. Weiss, Armand F. Ayazi & Kate Hertel, *Markman Practice, Procedures & Tactics*, in PATENT LITIGATION 2000, at 148-49 (PLI Pats., Copyrights, Trademarks, and Literary Prop. Course, Handbook Series No. G0-00BN, 2000), WL 619 PLI/Pat 117 (finding that courts are twice as likely after *Markman* to decide cases on summary judgment).

78. See, e.g., Yonker, *supra* note 6, at 331-41 (suggesting that more deference should be given to a district court when reviewing its claim construction, particularly concerning the “factual underpinnings”); Michael Saunders, *A Survey of Post-Phillips Claim Construction Cases*, 22

contributes to the abnormally high reversal rate by the Federal Circuit.⁷⁹ At least some district court judges have expressed sharp dissatisfaction with the *de novo* standard of review and the failure to give lower courts more deference.⁸⁰ In 2005, the Federal Circuit gave the impression it would revisit the standard of *de novo* review when it asked interested parties to brief the subject prior to the rehearing of *Phillips v. AWH Corp.*⁸¹ In the end the court failed to opine on the issue, disappointing those who saw the rehearing as a ripe opportunity to address the standard of *de novo* review.⁸² But, in its denial to rehear the *Amgen Inc. v. Hoechst Marion Roussel, Inc.* case en banc,⁸³ the Federal Circuit

BERKELEY TECH. L.J. 215, 239 (2007) (attributing the lack of consistency and predictability in the Federal Circuit to the *de novo* standard of review).

79. *Compare Cybor Corp.*, 138 F.3d at 1476 (citing a 40 percent reversal rate in the Federal Circuit); Chu, *supra* note 19, at 1112, 1127 (finding that during a given time period the Federal Circuit changed one or more claim constructions in over 40 percent of cases and the Federal Circuit reversed around 30 percent of total cases because of claim construction); Kimberly A. Moore, Markman Eight Years Later: Is Claim Construction More Predictable?, 9 LEWIS & CLARK L. REV. 231, 238 (2005) (finding that the Federal Circuit reversed 30 percent of cases involving claim construction); *with Golden*, *supra* note 25, at 324 n.15 (citing a 12 percent reversal rate in civil cases decided in courts of appeals other than the Federal Circuit).

80. At a panel discussion at Case Western Reserve University, District Court Judge Patti Saris (D. Mass.) expressed her dissatisfaction with claim construction, stating:

Trial court judges kill themselves on a [patent] trial, only to feel as though they are just a weigh station along the way to appeal. The lawyers know this and some of them treat us that way. Every single issue is raised; every one is preserved. If there are fifteen claims and fifteen constructions, the odds are favorable that the [Federal Circuit] will reverse on at least one or two.

JJ. Kathleen M. O'Malley, Patti Saris & Ronald H. Whyte, *A Panel Discussion: Claim Construction from the Perspective of the District Judge*, 54 CASE W. RES. L. REV. 671, 682 (2004). District Court Judge Ronald H. Whyte (N.D. Cal.) expressed similar feelings, saying, "If the reversal rate is as high as some claim it is, the easiest thing to do is figure out what your decision is and then write the opposite." *Id.* at 680. *See also*, *O.I. Corp. v. Tekmar Co.*, No. 95-CV-113 (S.D. Tex. June 17, 1996), *aff'd*, 115 F.3d 1576 (Fed. Cir. 1997). At a summary judgment hearing in *Tekmar*, Judge Kent stated:

I don't know why I'm so excited about trying to bring this [patent case] to closure. It goes to the Federal Circuit afterwards. You know, it's hard to deal with things that are ultimately resolved by people wearing propeller hats. . . . I could say that with impunity because they've reversed everything I've ever done, so I expect fully they'll reverse this, too.

Id.

81. 376 F.3d 1382, 1382-83 (Fed. Cir. 2004) (granting a rehearing en banc) (asking interested parties to submit briefs concerning the *de novo* standard of review established by the *Cybor Corp.* opinion interpreting *Markman*).

82. *See, e.g.*, Karen Hagberg & Marc J. Pernick, 'Phillips': Resolving (Most) Issues on Construing Patent Claims, N.Y.L.J. July 28, 2005, at 4 (describing the Federal Circuit's failure to address the *de novo* standard of review in the *Phillips* rehearing as disappointing).

83. 457 F.3d 1293 (Fed. Cir. 2006), *reh'g denied*, 469 F.3d 1039, 1040 (Fed. Cir. 2006). At least one scholar, Jeffrey Peabody, believes that the Federal Circuit again missed an opportunity to address the *de novo* standard of review. *See Jeffrey Peabody, Under Construction: Towards a More*

revealed its unrest with the current standard of review by authoring six separate opinions on the merits of the rehearing.⁸⁴ Until a higher court better addresses this issue of deference, discontent at the district court level will only contribute to the lack of predictability and certainty surrounding claim construction. However, before higher courts adopt a more deferential standard of review, a higher court must ensure that district court judges are using the proper technique.⁸⁵

D. *The Dueling Approaches to Claim Construction*

Patent claims, which follow the specification, define the property rights of an inventor by delineating what the patentee may exclude all others from making and/or using.⁸⁶ The scope of the claims sets the boundaries of the right that the patentee is entitled to enforce, although without interpretation, claims are meaningless.⁸⁷ Of all parties who interpret patent claims, including litigants, licensees, assignees, and examiners at the PTO, judges often have the final say in construing issued patent claims.⁸⁸ During the *Markman* and *Cybor Corp.* era, two competing methodologies appeared, each referencing different sources to construe patent claims.⁸⁹ Judges differ on these two competing methodologies, and this Section will address each in turn.

1. The Intrinsic Approach

One methodology construes patent claims based on intrinsic evidence, which may include the specification, the prosecution history, and the patent claims.⁹⁰ The court in *Vitronics Corp. v. Conception*,

Deferential Standard of Review in Claim Construction, 17 FED. CIR. B.J. 505, 513 (2008) (opining that the Federal Circuit should have addressed the claim construction standard of review under *Cybor Corp.* by rehearing *Amgen*).

84. See *Amgen*, 469 F.3d at 1040.

85. To give district court claim constructions more deference *before* improving the claim construction process might only reduce the amount of much-needed input from the Federal Circuit by restricting that court to the most egregious claim construction errors.

86. See Mullally, *supra* note 9, at 349 (explaining how claims are the primary indicia of the extent of the patentee's property rights).

87. *Id.* 349-50.

88. See, e.g., *Roberts v. Sears*, 723 F.2d 1324, 1333 (7th Cir. 1983) (mentioning a function of the PTO and then proceeding to note that claim construction is "ultimately the responsibility of the trial judge").

89. See discussion *infra* Subsections II.D.1-2 (explaining the intrinsic and extrinsic approaches).

90. See Saunders, *supra* note 78, at 218, 221 (noting that the intrinsic method is also referred to as the "'holistic' [or] 'pragmatic textualist'" approach). Though intrinsic evidence typically

Inc. provides an example of the intrinsic approach, stating its belief that intrinsic evidence is the best source for ascertaining the meaning of disputed claims.⁹¹ In doing so, the *Vitronics* court stated that construers should start claim construction by giving claim language its ordinary meaning unless that meaning is inconsistent with the specification.⁹² *Vitronics* indicated that courts should also use the prosecution history, if admitted into evidence, to construe claims.⁹³ Lastly, the Federal Circuit explained that courts should only use extrinsic evidence to aid in claim construction if claim meaning is still ambiguous after consulting intrinsic sources.⁹⁴ One benefit of avoiding extrinsic sources is that intrinsic evidence defines the public record, which in turn provides a finite list of sources from which to interpret.⁹⁵

2. The Extrinsic Approach

A second methodology construes patent claims based on extrinsic evidence, which may include dictionaries, expert or inventor testimony, and prior art such as technical treatises and existing patents.⁹⁶ In 2002, the Federal Circuit embraced the extrinsic approach in *Texas Digital Systems, Inc. v. Telegenix, Inc.*⁹⁷ Like *Vitronics*, *Texas Digital* also indicated that construers should give claim language its ordinary meaning, as understood by one skilled in the art.⁹⁸ But, *Texas Digital* explained that “dictionaries, encyclopedias[,] and treatises” can help

contains the specification and is broader in scope than the specification, as used in this Comment, “intrinsic evidence” and “specification” are relatively interchangeable.

91. 90 F.3d 1576, 1582 (Fed. Cir. 1996) (indicating that the intrinsic record is usually the best source for resolving disputes over claim language).

92. *See id.* (stating that the specification is always relevant, usually dispositive, and generally superlative in guiding a construer to the proper meaning of disputed claim language). *See also*, MPEP, *supra* note 57, at § 2111.01 (citing *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1373 (Fed. Cir. 2004)) (noting that basic, unquestionable English words usually “mean exactly what they say”).

93. 90 F.3d at 1582 (mentioning that the prosecution history is invaluable to the claim construction process because it records all dealings with the PTO and may even include an applicant’s explicit remarks about claim scope).

94. *Id.* at 1583 (prioritizing intrinsic over extrinsic evidence).

95. *See id.*

96. *See Saunders, supra* note 78, at 218, 221 (The extrinsic method has also been referred to as “procedural,” ‘hypertextualist,’ and ‘formalistic.’”). *See also* *Tate Access Floors, Inc. v. Interface Architectural Res., Inc.* 279 F.3d 1357, 1371 n.4 (Fed. Cir. 2002) (defining extrinsic evidence to include all sources external to the patent and its prosecution history, such as prior art that the PTO examiner did not consider).

97. 308 F.3d 1193 (Fed. Cir. 2002).

98. *Id.* at 1202 (finding that, if possible, claim terms should first be interpreted according to their ordinary meanings as understood by one skilled in the art).

courts ascertain the ordinary meaning of disputed claim language.⁹⁹ As rationale for its approach, *Texas Digital* explained that dictionaries are unbiased, always available when a patent issues, employed to interpret other aspects of law, and often more intelligible than intrinsic evidence.¹⁰⁰ In prioritizing extrinsic evidence over intrinsic evidence,¹⁰¹ the Federal Circuit stated that because dictionaries often have multiple meanings, courts should use intrinsic evidence to then select the appropriate definition in the dictionary.¹⁰²

Even though *Vitronics* and *Texas Digital* were decided over a half-decade apart, their respective methodologies served as “co-existing branches of claim construction jurisprudence.”¹⁰³ Michael Saunders argued that, at one time, the methodology used in any particular appeal to the Federal Circuit was contingent upon the panel of three judges hearing the case.¹⁰⁴ The dueling nature of these approaches is arguably one more contributing factor to the Federal Circuit’s high reversal rate.

99. *Id.* (citing *Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002); *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (finding precedential caselaw that allows use of the dictionary to help define the ordinary meaning of a claim term)).

100. *Id.* at 1202-03 (citing an abundance of decisions in which construers used dictionaries to aid in claim construction).

101. *Id.* at 1204 (explaining that to consult intrinsic evidence before making an effort to determine the ordinary meaning of disputed claim terms “invites a violation” of the well-grounded restriction against importing claim limitations).

102. *Id.* at 1203 (indicating that because words in a dictionary often have numerous meanings, some of which may be irrelevant and/or inappropriate, construers should always consult the intrinsic record to determine which dictionary definition is most consistent with the usage contemplated by the inventor).

103. Saunders, *supra* note 78, at 220 (discussing the two competing claim construction theories stemming from the Federal Circuit’s *Vitronics* and *Texas Digital* decisions).

104. Describing how, prior to *Phillips*, the methodology used is quite dependent on the panel of Federal Circuit judges hearing the case, R. Wagner and Lee Petherbridge report:

Our findings also indicate that claim construction at the Federal Circuit is panel dependent. That is, the data reveals that the composition of the panel that hears and decides an appeal has a statistically significant effect on the claim construction analysis. Specifically, we find that individual judges vary widely in their methodological approach to claim construction, and that the distribution of the judges allows useful classification into three groups: the “Proceduralists” (i.e., those preferring procedural analyses), the “Holistics” (i.e., those preferring holistic analyses), and a middle group, the “Swing Judges.” Panel participation by members of both the Proceduralist and Holistic groups is statistically related to the form of claim construction analysis. In addition, the differential odds of a particular methodological approach can be calculated with 95% statistical significance for half (i.e., six) of the currently active Federal Circuit judges.

R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1112 (2004) (internal citations omitted).

3. Phillips Instructs Courts to Construe in Light of Intrinsic Evidence

The Federal Circuit addressed the intrinsic-extrinsic turmoil in the landmark case of *Phillips v. AWH Corp.*, which resembled a precedential case in the House of Lords.¹⁰⁵ In *Phillips*, the court first confirmed one of the only common threads between *Vitronics* and *Texas Digital*—that courts should give claim language its ordinary meaning, as one skilled in the art would so interpret.¹⁰⁶ *Phillips* indicated that skilled artisans should read the disputed terms in the context of their respective claims and “in the context of the entire patent, including the specification.”¹⁰⁷ The court proceeded to indicate that the specification is “the single best guide” for defining disputed claim language.¹⁰⁸ In accord with the PTO’s position,¹⁰⁹ *Phillips* further instructed that the surrounding claims and the patent’s prosecution history, both forms of intrinsic evidence, were also important in construing claims.¹¹⁰ Finally, the court established that extrinsic evidence, while helpful, is not as significant or as reliable as intrinsic evidence in interpreting the legal meaning of disputed claim language.¹¹¹

105. See *Kirin-Amgen Inc. v. Transkaryotic Therapies Inc.* [2004] UKHL 46 (approving a lower judge reading claims in context of the specification).

106. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)) (explaining that courts usually give claim language its “ordinary and customary meaning”) (explaining further that the ordinary and customary meaning of claim language depends on the understanding of a skilled artisan at the time the inventor filed the patent application with the PTO).

107. *Id.* at 1313 (citing *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998)) (explaining how those skilled in the art read patents “with an understanding of their meaning in the field” which requires understanding the inventor’s “lexicography” as provided in the specification and prosecution history).

108. See *id.* at 1315 (citing *Vitronics*, 90 F.3d at 1582) (finding the specification of a patent to be extremely relevant, usually dispositive, and generally superlative in construing disputed claim language).

109. See generally Brief for the United States as Amicus Curiae, *Phillips v. AWH Corp.*, 376 F.3d 1382 (Fed. Cir. 2004) (Nos. 03-1269, -1286) (mentioning how, as one of over thirty interested parties filing *amicus* briefs, the PTO argued that intrinsic evidence should serve as the primary guide to claim construction since it preserves numerous patent law doctrines and provides the best public notice).

110. 415 F.3d at 1314, 1317.

111. The court reasoned that extrinsic evidence is less reliable because it is not part of the patent, its author creates it at a different time than the patent, it is selected and/or generated at and for the purpose of litigation, there is a “virtually unbounded universe of potential extrinsic evidence,” and skilled artisans do not create the extrinsic sources. *Id.* at 1317-18. For the most part, post-*Phillips* courts have followed this principle of prioritizing intrinsic evidence. See, e.g., *In re Johnston*, 435 F.3d 1381, 1384 (Fed. Cir. 2006) (following that “dictionary definitions must give way to” the specification).

Though *Phillips* appeared to make extrinsic evidence a last resort, the Federal Circuit has since utilized language in *Phillips* that arguably allows courts to examine extrinsic evidence “at any time” during claim construction.¹¹² *Cross Medical Products, Inc. v. Medtronic Sofamor Danek, Inc.* illustrates this usage.¹¹³ In *Medtronic*, the Federal Circuit said that it could consult the dictionary “to *begin*” discerning the ordinary meaning of two related claim elements.¹¹⁴ Despite occasional lapses, the Federal Circuit still largely subscribes to the principle that courts should construe patent claims “in light of the specification” and other intrinsic evidence.¹¹⁵ This approach is consistent with the Supreme Court’s position as stated in cases such as *Seymour v. Osborne*¹¹⁶ and *United States v. Adams*.¹¹⁷

E. Importing Claim Limitations from the Specification—A Supposed No–No

For over a decade, the Supreme Court has recognized the importance in preventing limitations from a patent specification to enter the patent claims.¹¹⁸ The Court has explained that importing a first limitation from the specification would create a slippery slope for

112. 415 F.3d at 1322-23 (quoting *Vitronics*, 90 F.3d at 1584 n.6) (discussing how construers may consult extrinsic sources “at any time” to gain a better understanding of the technological field and mentioning further that claim construers can utilize dictionary definitions as long as the chosen definition does not contravene the meaning of the claim term suggested by the intrinsic evidence).

113. 424 F.3d 1293 (Fed. Cir. 2005).

114. *Id.* at 1305 (emphasis added) (consulting a dictionary before consulting the intrinsic record to ascertain the ordinary meaning of claim terms).

115. See *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1383 (Fed. Cir. 2008) (rejecting a litigant’s suggested claim construction as being inconsistent with the ordinary meaning of the term “as interpreted *in light of the specification*”) (emphasis added); *Decisioning.com, Inc. v. Federated Dept. Stores, Inc.*, 527 F.3d 1300, 1308 (Fed. Cir. 2008) (“Read *in light of the specification*, however, we conclude . . .”) (emphasis added); *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 n.3 (Fed. Cir. 2008) (citing *Phillips* for the proposition that the intrinsic record is important to claim construction).

116. 78 U.S. 516, 547 (1870) (explaining that patent claims may be construed according to the details within the specification since claims generally follow the specification, but that claims must be construed according to the details within the specification where claim language specifically refers back to words in the specification).

117. 383 U.S. 39, 48-49 (1966) (articulating that construing claims in light of the specification is a fundamental principle of patent law).

118. E.g., *McCarty v. Lehigh Val. R. Co.*, 160 U.S. 110 (1895). The Supreme Court in *McCarty* explained that starting to limit claims by including elements not mentioned in the claims would create a slippery slope effect where it would be hard to know where to stop. *Id.* at 116. See also *Winans v. Denmead*, 56 U.S. 330, 343 (1853) (discussing how it is unnecessary for patent practitioners to add statements specifying that the claims extend “to the thing patented, however [varied] its form or proportions” because patent law interprets claims like so without these words).

importing more limitations.¹¹⁹ The Justices have also explained that limitations imported into one claim might require importing the same limitations into subsequent claims.¹²⁰ Furthermore, the Court has discussed how importing limitations from the specification might legally permit the public to replicate mass quantities of the invention simply by altering “its form or proportions.”¹²¹

Other sources of authority, like the Federal Circuit and the PTO, have similarly avoided claim limitations from the specification.¹²² The Federal Circuit regarded the practice of importing claim limitations from the specification as a “danger.”¹²³ To reiterate, judges construe patent claims according to those skilled in the art.¹²⁴ When patent claims are limited to examples or embodiments discussed in intrinsic evidence, dangers of an incorrect result arise since one skilled in the art may not have understood the invention to be limited to that intrinsic evidence.¹²⁵ A rudimentary example can help illustrate this principle. Perhaps a patent specification for a door hinge states that its design prevents vehicular doors from detaching upon side-impact collisions. Such language might effectively limit the scope of the invention to the automotive industry. On the other hand, perhaps the specification fails to prescribe such a narrow, preventative purpose and instead states that the hinge *may* be used in the automotive industry. Further, the patent does *not* mention nor exclude other applications external to the

119. *McCarty*, 160 U.S. at 116 (discussing the slippery slope effect of starting to limit the scope of claims by incorporating aspects of the invention that the claims themselves do not require).

120. *Id.* (discussing adverse consequences of importing claim limitations from the specification).

121. *See Winans*, 56 U.S. at 343 (explaining that importing limitations from the specification can narrow the scope of patent protection to the extent that the public might take advantage of such limitations).

122. MPEP, *supra* note 57, at § 2111.01 (quoting *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004)) (recognizing that the specification is important to a complete understanding of claim language, but also recognizing the importance in avoiding bringing in claim limitations “that are not part of the claim”).

123. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (referring to “the danger” of importing claim limitations from the specification). *See also Varco, L.P. v. Pason Sys. USA Corp.*, 436 F.3d 1368, 1373 (Fed. Cir. 2006) (stating how the Federal Circuit “will not at any time” bring in claim limitations from the specification); *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-67 (Fed. Cir. 1998) (following that limitations from the specification are not to be read into the claims).

124. *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002) (stating how courts should construe claims from the perspective of the skilled artisan). *See also supra* text accompanying note 98.

125. *See Texas Digital*, 308 F.3d at 1205 (citing numerous cases that stand for the proposition that the skilled artisan does not always understand the invention to be limited to the explicit examples and embodiments contained in the patent).

automotive industry. Construing the hinge as limited to automobiles would be inappropriate if one skilled in the art would have understood that the hinge could be used on doors in, for example, an industrial building.

To add to this danger, abundant disclosure in the specification may provide courts and adverse litigants with additional material from which to interpret unnecessary limitations. Of course, patentees can avoid this hazard of unnecessary imported limitations by drafting narrow claims, though this would render the patent less valuable. Patentees can also avoid this hazard by writing methodical specifications. Such practice might include using non-limiting language like “may” and avoiding phrases like “the invention is.”¹²⁶ Absent this vigilance, lengthy disclosures can increase the risk that limitations will enter the claims.

III. BATTLE OF THE TWO CLAIM CONSTRUCTION CANONS

Authority instructs judges to construe patent claims “in light of” intrinsic evidence, including the specification, but judges must also avoid importing claim limitations from the specification.¹²⁷ The problem is that construing a claim in light of the specification inherently involves importing some form of limitation from the specification.¹²⁸ Sometimes patent applicants disclose as much as possible in an attempt to broaden the scope of the patent and fulfill Section 112 requirements for fear of invalidity.¹²⁹ As a result, courts have more material from which to read limitations into the claims. Even the Federal Circuit acknowledged that these claim construction canons breed numerous

126. Open-ended language that does not limit the invention can be very beneficial in litigation. See, e.g., *Conoco, Inc. v. Energy & Env'tl. Int'l, L.C.*, 460 F.3d 1349, 1358 (Fed. Cir. 2006) (concluding that a claim was not limited to a composition having at least 30 percent water because, even though the specification stated that the composition forms “more usually” with 30 to 50 percent by weight water, the specification also indicated that the composition “may vary widely”). See also U.S. Patent No. 5,244,937 col.5 ll.19-23 (filed Nov. 15, 1991).

127. See *supra* Subsection II.D.3 (discussing how courts should construe patent claims in light of the intrinsic evidence). But see *supra* Section II.E (discussing how courts must avoid importing claim limitations from the specification).

128. See Cheryl Lee Johnson, *The Continuing Inability of Judges to Pass Their Markman Tests: Why the Broken System Leaves Judges Behind, Confused and Demoralized*, in MARKMAN HEARINGS AND CLAIM CONSTRUCTION IN PATENT LITIGATION 2008, at 117 & n.263 (PLI Pats., Copyrights, Trademarks, and Literary Prop. Course, Handbook Series No. 14905, 2008), WL 941 PLI/Pat 65 (referring to the alleged distinction between claim construction canons as “elusive” and “invisible”).

129. See *supra* Subsections II.B.1-2 (discussing the requirements that may lead patent drafters to over-disclose).

problems.¹³⁰ The Federal Circuit unintentionally exacerbated this problem in *Phillips* by prioritizing intrinsic evidence in claim construction.¹³¹ Consequently, more judges are consulting intrinsic evidence more often,¹³² naturally increasing the probability that judges will import claim limitations from the specification. At least one panel for the Federal Circuit warned of such an adverse consequence several years before the *Phillips* decision.¹³³

Long before *Phillips*, even the Supreme Court had problems striking a balance between the two claim construction canons.¹³⁴ In a 1966 case, *United States v. Adams*, the patentee claimed a battery as his invention, and the relevant claims did not require the battery's electrolyte to be water.¹³⁵ Nevertheless, the Justices looked to the object of the invention contained within the specification, which mentioned water as a possible electrolyte, and the Court limited the electrolyte in the battery to water.¹³⁶ *Adams* illustrates how even the Supreme Court

130. See *Renishaw PLC v. Marposs Societa' Per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). See also *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (acknowledging that the distinction between construing claims in light of the specification versus avoiding claim limitations from the specification can prove "difficult"); *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998) (recognizing that only a "fine line" often exists between construing a claim in light of the specification and avoiding importing claim limitations from the specification).

131. See *supra* Subsection II.D.3 (discussing how the Federal Circuit sided with the intrinsic approach to claim construction).

132. See, e.g., *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1369-70 (Fed. Cir. 2008) (drawing conclusions based on intrinsic evidence); *800 Adept, Inc. v. Murex Sec., Ltd.*, 539 F.3d 1354, 1366 (Fed. Cir. 2008) (concluding the lower court's claim construction was appropriate based on the intrinsic evidence).

133. See *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (Fed. Cir. 2002) (explaining that to consult intrinsic evidence before making an effort to determine the ordinary meaning of disputed claim terms "invites a violation" of the well-grounded restriction against importing claim limitations). See also Taylor, *supra* note 80, at 25 (stating how the extrinsic approach helped avoid reading claim limitations from the specification).

134. See *infra* text accompanying notes 135-137.

135. See U.S. Patent No. 2,332,210 (filed Mar. 20, 1942). See also 383 U.S. 39, 48-49 (1966) (limiting certain claims by relying heavily on the fact that an explicit object of the invention was to supply an activated battery with the "mere addition of water," not by relying heavily on the ordinary meaning of the claim language).

136. *Adams*, 383 U.S. at 48-49. Amidst noting that claims should be construed in light of the specification, the Court stated:

[T]he fact that the Adams battery is water-activated sets his device apart from the prior art. It is true that Claims 1 and 10, *supra*, do not mention a water electrolyte, but, as we have noted, a stated object of the invention was to provide a battery rendered serviceable by the mere addition of water. . . . Taken together with the stated object of disclosing a water-activated cell, the lack of reference to any electrolyte in Claims 1 and 10 indicates that water alone could be used. Furthermore, of the 11 claims in issue, three of the narrower ones include references to specific electrolyte solutions comprising water and certain salts. The obvious implication from the absence of any mention of an electrolyte-

has trouble construing in light of the specification while not importing claim limitations from the same. Years later, the Fourth Circuit commented that *Adams* had “the unavoidable effect of limiting the claims by the specifications.”¹³⁷

Four decades have passed since *Adams*, yet any reconciliation between the claim construction canons still appears murky. More recently, in *Renishaw*, the Federal Circuit was faced with precisely construing the claim term “when.”¹³⁸ *Renishaw* proposed a broad definition such as “‘at or after the time that,’ ‘in the event that,’ or ‘on condition that[.]’”¹³⁹ After consulting the written description, the court narrowly construed “when” to mean “as soon as possible after contact.”¹⁴⁰ The court explained that, according to the written description, the invention functions properly only when “the probe triggers very, very soon after contact.”¹⁴¹ Hence the court construed “when” in light of the specification, but at the same time, it also imported narrowing details from the specification. The court rationalized this limitation based on the patentee’s emphasis on near-contemporaneous timing.¹⁴² *Wang Laboratories, Inc. v. America Online, Inc.* illustrates the same predicament.¹⁴³ In *Wang Laboratories*, the court referred to the specification in construing the term “frame.”¹⁴⁴ The parties disputed whether the term “frame” was limited to “character-based systems” or whether “frame” also included “bit-mapped displays.”¹⁴⁵ The court noted that the specification consistently used “frame” to refer only to character-based systems.¹⁴⁶ The court further noted how the only type of system described in the patent used a

a necessary element in any battery-in the other eight claims reinforces this conclusion.

Id. at 49.

137. *Am. Original Corp. v. Jenkins Food Corp.*, 696 F.2d 1053, 1057 n.2 (4th Cir. 1982) (indicating that while the Court in *Adams* construed the claims in light of the specification, the specification itself “limited the electrolyte in the battery to water”).

138. *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1251-52 (Fed. Cir. 1998) (deciding whether “when” should be construed narrowly to mean “as soon as possible” or broadly to mean “at or after the time that”). *See also supra* notes 34-40 and accompanying text (discussing the factual background of *Renishaw*).

139. *Renishaw*, 158 F.3d at 1250.

140. *Id.* at 1251.

141. *Id.* at 1252 (relying heavily on the specification as opposed to the ordinary meaning of the claim term “when”).

142. *See id.* *See also*, U.S. Patent No. 5,491,904 (filed Apr. 21, 1995).

143. 197 F.3d 1377 (Fed. Cir. 1999).

144. *Id.* at 1380-82.

145. *Id.* at 1381.

146. *See id.* *See also* U.S. Patent No. 4,751,669 (filed Apr. 4, 1985).

character-based system.¹⁴⁷ Finding that the patent enabled and embodied only character-based systems, the court limited the term “frame” accordingly.¹⁴⁸

Just like the court limited the claim in *Wang Laboratories*, the Federal Circuit in *C.R. Bard, Inc. v. U.S. Surgical Corp.* limited a claim that did not mention any pleated surface.¹⁴⁹ The specification, however, contained universal statements and preferred embodiments that included pleated elements.¹⁵⁰ By construing the claim in light of the specification, the court concurrently imported a limitation into the claim when it concluded that the patentee defined various claim elements as necessarily having a pleated surface.¹⁵¹

Courts have continued to wrestle with the canons even after *Phillips* prioritized intrinsic evidence in claim construction. About a month after the *Phillips* decision, the Federal Circuit decided *AquaTex Industries, Inc. v. Techniche Solutions*.¹⁵² The *AquaTex* panel contemplated whether the claim term “fiberfill batting material” encompassed synthetic-only fibers or natural and synthetic fibers.¹⁵³ Even though the specification stated that “[t]he particular fiberfill is not

147. *Wang Laboratories*, 197 F.3d at 1382.

148. *Id.* at 1384.

149. 388 F.3d 858, 869 (Fed. Cir. 2004). Absent any language or requirement about a pleat, patent claim twenty states:

An implantable prosthesis for repairing a tissue or muscle wall defect, comprising: a hollow plug, formed of a surgical mesh fabric having openings therein for tissue ingrowth, constructed and arranged to securely fit within and occlude the tissue or muscle wall defect and which is radially compressible upon insertion into the defect from a first configuration which is larger than the defect into a second configuration which approximates the shape of the defect, the surface of said of hollow plug being conformable to irregularities in the tissue or muscle wall defining the defect.

U.S. Patent No. 5,356,432 col.12 ll.12-24 (filed Feb. 5, 1993).

150. *U.S. Surgical*, 388 F.3d at 864-66.

151. *Id.* at 866. For another pre-*Phillips* decision that similarly obscures the alleged distinction between the claim construction canons, see *Bell Atl. Network Servs., Inc. v. Covad Commc'ns. Group, Inc.*, 262 F.3d 1258 (Fed. Cir. 2001). In *Bell Atl.*, the litigants disputed the meaning of the claim term “mode.” *Id.* at 1270. In upholding the lower court’s construction that “mode” was limited to three categories, the court pointed to language found in the specification. *Id.* at 1271. The court did not apply the general rule against limiting “claim terms by a preferred embodiment or inferences drawn from the description of a preferred embodiment” because the patent did not vary the usage of the disputed term. *Id.* at 1273 (citing *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 991-92 (Fed. Cir. 1999)). Instead, the court found that the patentees impliedly defined the term “mode” by “the term’s consistent use throughout” the specification. *Id.* (citing *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

152. 419 F.3d 1374 (Fed. Cir. 2005).

153. *Id.* at 1380 (noting that this issue about the “fiberfill batting material” also controls the matter of literal infringement).

known to be critical[.]”¹⁵⁴ the court emphasized other language in the specification. Particularly, the court noted examples having only synthetic materials and references to other patents that failed to discuss the use of natural fibers.¹⁵⁵ Oddly enough, within the same paragraph of limiting the claim to synthetic fibers, the unanimous panel stated how it would follow the canon of avoiding the importation of claim limitations from the specification.¹⁵⁶ On the same day as *AquaTex*, the court decided *Ocean Innovations, Inc. v. Archer*.¹⁵⁷ *Ocean Innovations* required the court to interpret whether claimed “floatation units” were necessarily hollow.¹⁵⁸ In concluding that the disputed claim was limited to hollow floatation units, the court emphasized various language throughout the specification that described the floatation units as hollow.¹⁵⁹ *Ocean Innovations* is yet another example of judges importing limitations from the specification while construing claims in light of the specification. Surprisingly, with the frequency that courts import limitations, courts rarely acknowledge importing limitations. One of the only circumstances in which courts have recognized importing limitations from the specification is when, as various panels have recommended, a patentee acts as his or her own lexicographer by defining terms of art in the specification.¹⁶⁰

154. U.S. Patent No. 6,371,977 col.3 147 (filed Sept. 30, 1999).

155. *AquaTex*, 419 F.3d at 1381.

156. *Id.* at 1382.

157. 145 Fed. App'x 366 (Fed. Cir. 2005).

158. *Id.* at 370.

159. *Id.* at 370-71 (noting that the first sentence of the patent describes the invention as a “floating, drive-on dry dock assembly for small craft [that] is assembled from two kinds of *hollow floatation units*.” The specification characterizes the invention by referencing “prior art devices that also contain hollow units.” *Id.* The court pointed to to verbiage in the Summary of the Invention that stated how the dock was “assembled from a combination of tall and short, *hollow*, air-tight floatation units.” *Id.* Ironically, like the court in *AquaTex*, the court here also indicated that finding the floatation units to be hollow was not importing a limitation from the specification because the specification made clear that the floatation units were inherently hollow. *Id.* at 371. See also U.S. Patent No. 5,682,833 (filed June 21, 1996). Another post-*Phillips* decision that has trouble fulfilling both claim construction canons is *Fiber Optic Designs, Inc. v. Seasonal Specialties, LLC*, 172 Fed. Appx 995, 997 (Fed. Cir. 2006).

160. See, e.g., *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008) (discussing how a patentee can serve “as its own lexicographer”). To illustrate when a patentee serves as its own lexicographer, in the case of *Cultor Corp. v. A.E. Staley Mfg. Co.*, the patentee defined the term “water-soluble polydextrose” in the specification. See 224 F.3d 1328, 1330 (Fed. Cir. 2000). See also U.S. Patent No. 5,667,593 col.1 11.9-30 (filed Aug. 29, 1990) (“As used herein, the expression ‘water-soluble polydextrose’ . . . specifically refers to the water-soluble polydextrose prepared by melting and heating dextrose . . . in the presence of a catalytic amount . . . of citric acid.”). The court found that the patentee disclaimed various prior art acids by explicitly defining “water-soluble polydextrose” as being “limited to that prepared with a citric acid catalyst.”

IV. FINDING COMMON GROUND FOR THE CLAIM CONSTRUCTION CANONS

Through *Phillips*, the Federal Circuit suggested how to construe claims based on the specification and yet avoid importing claim limitations from the specification.¹⁶¹ In the aftermath of *Phillips*, many Federal Circuit opinions have stressed reading the specification as a whole, or rather, considering the intrinsic record in its entirety when defining disputed claim language.¹⁶² A viable solution comes to light when considering that courts may construe claims according to the entire specification as long as they acknowledge that, at times, claims must be selectively imported.

A. *Construing Claims in Light of the Specification as a Whole*

In the 1990s, the Federal Circuit announced that courts should refrain from construing claim language according to specific embodiments in the specification.¹⁶³ The same is true for limiting a claim term to one of a plurality of meanings evidenced throughout a specification.¹⁶⁴ In 2001, the Federal Circuit explained claim construction as a function of all intrinsic evidence.¹⁶⁵ Just two years later, the Federal Circuit found the balance between the two claim construction canons to turn on “whether the specification refers to a limitation only as a part of less than all possible embodiments or whether the specification read as a whole suggests that the very character of the invention requires the limitation be a part of every embodiment.”¹⁶⁶

Cultor Corp., 224 F.3d at 1331. Subsequently, the court indicated that construers cannot interpret claims to include material that was “expressly disclaimed.” *Id.*

161. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323-24 (Fed. Cir. 2005) (recommending the perspective of a skilled artisan to better distinguish between the two claim construction canons).

162. See *infra* Section IV.A (discussing language that numerous courts have used to instruct construers to interpret patent claims in light of *all* intrinsic evidence).

163. *Electro Med. Sys., S.A. v. Cooper Life Scis., Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

164. See, e.g., *Enercon GmbH v. Int’l Trade Comm’n*, 151 F.3d 1376, 1385 (Fed. Cir. 1998) (refusing to limit “rotate” to one of its various meanings throughout the specification); *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 991 (Fed. Cir. 1999) (“Varied use of a disputed term in the written description demonstrates the breadth of the term rather than providing a limited definition.”); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002) (stating that an alleged infringer does not rebut a claim term’s ordinary meaning merely by construing the disputed claim term according to a preferred embodiment or a piece of the entire intrinsic record).

165. *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1332 (Fed. Cir. 2001) (indicating that courts should construe claim terminology “in the context of the entirety of [the] invention”).

166. *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1370 (Fed. Cir. 2003).

Digital Biometrics, Inc. v. Identix, Inc. provides a good example of language on the intrinsic record that pertains to all embodiments.¹⁶⁷ In *Identix*, remarks in the prosecution history distinguished the invention from certain prior art.¹⁶⁸ These remarks referred to all pending claims that had been rejected in view of the prior art.¹⁶⁹ Since the applicant made the remarks in the global context, or rather, pertaining to the invention as a whole, the court found the remarks applied to the claim set as a whole.¹⁷⁰ *Specialty Composites v. Cabot Corp.*,¹⁷¹ on the other hand, illustrates how particularities of intrinsic evidence may not apply to the entire claim set. In *Cabot*, the specification of the patent in question referred only to “plasticizers,” never specifying whether the plasticizers were “external” or “internal.”¹⁷² But, even though the specification did not contain the word “external,” three examples in the specification incorporated external plasticizers.¹⁷³ The court noted how other examples incorporated internal plasticizers and how the patentee did not emphasize the type of plasticizer.¹⁷⁴ Before concluding that the intrinsic evidence did not restrict the claims to external plasticizers, the *Cabot* court explained that examples should generally not limit the scope of a patent.¹⁷⁵ Instead, claim language delimits the parameters of a patent so long as the intrinsic evidence supports that reading by fulfilling the written description, enablement, and various other patentability requirements.¹⁷⁶

The notorious *Phillips* opinion proffers similar language.¹⁷⁷ Despite a disclaimer,¹⁷⁸ *Phillips* indicated that courts can predictably distinguish the two canons by focusing on the big picture, as opposed to

167. 149 F.3d 1335 (Fed. Cir. 1998).

168. *Id.* at 1347.

169. *Id.*

170. *Id.* (discussing a specific paragraph in the prosecution history in which the patent applicant distinguished “all of the pending claims” that were anticipated by prior art).

171. 845 F.2d 981 (Fed. Cir. 1988).

172. *See id.* at 987. *See also* U.S. Patent No. RE29487 (filed Mar. 12, 1976).

173. *Cabot*, 845 F.2d at 987.

174. *Id.* at 987-88.

175. *Id.* at 987 (instructing that a limitation from a specification should not be read into the claims where the “specification does not require a limitation”).

176. *Id.*

177. *See infra* text accompanying notes 178-180.

178. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). After reciting its recommendations on how to construe based on the specification yet avoid claim limitations, the Federal Circuit defended its decision—with some reserve. The court explained how cases will continue to arise in which it will be difficult to assess whether the skilled artisan would “understand the embodiments to define the outer limits of the claim term or merely to be exemplary in nature.” *Id.*

specific embodiments, and by construing from the perspective of a skilled artisan.¹⁷⁹ The court also indicated how reading the specification often reveals whether the patentee is (a) intending for the claims to be “coextensive” with embodiments in the specification or (b) merely providing examples of the invention.¹⁸⁰ Numerous panels have argued that, quite simply, courts should interpret claims to be commensurate with the scope of the specification.¹⁸¹

B. *Accepting the Inevitable with Claim Limitations*

The Supreme Court has tried to avoid granting overly broad patent protection, and one means of achieving this end is to examine the intentions of the patentee when construing claims.¹⁸² However, construing patent terms in accord with the inventor’s intentions may necessarily involve importing limitations from intrinsic evidence, and courts have started to acknowledge this need.¹⁸³ Long ago, the Supreme Court indicated that claims *may* be limited to the “form” of the invention detailed in the specification and drawings.¹⁸⁴ Approximately twenty years ago, the Federal Circuit began using the term “extraneous” to refer to improper claim limitations.¹⁸⁵ The *E.I. du Pont* panel defined “extraneous” as “a limitation read into a claim from the specification *wholly apart from any need* to interpret what the patentee meant by

179. *See id.* at 1323 (noting how “it is important to keep in mind that the purposes of the specification are to teach and enable those of skill in the art to make and use the invention and to provide a best mode for doing so”). *See also supra* note 56 and accompanying text (discussing the skilled artisan).

180. *Phillips*, 415 F.3d at 1323 (citing *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001)).

181. *See, e.g.*, *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001) (noting that claim construction does not seek to narrow or broaden the scope of the claims and stating how claims are not limited to preferred embodiments, but also stating how claims do not enlarge the scope of the invention that the inventor has described). *See also United States v. Adams*, 383 U.S. 39, 49 (1966) (instructing that intrinsic evidence cannot be used to extend the rights of a patent holder).

182. *Evans v. Eaton*, 16 U.S. 454, 507-08 (1818) (explaining how the intentions of the parties can be ascertained, *inter alia*, by looking at the relief requested, the specification of the patent, and the parties’ previous interactions).

183. *See infra* text accompanying notes 184-189 (noting that the two highest courts capable of hearing patent litigation suits have acknowledged that claims must, at times, be limited by the specification).

184. *Smith v. Snow*, 294 U.S. 1, 11 (1935) (citing *Snow v. Lake Shore & M. S. RR. Co.*, 121 U.S. 617, 630 (1887)).

185. *See, e.g.*, *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988).

particular words or phrases in the claim.”¹⁸⁶ When the court referred to some claim limitations read from the specification as “extraneous,” or improper, the court implicitly acknowledged that other claim limitations may be proper when necessary.¹⁸⁷ Another panel indicated that the written description gives meaning to the claims by “dictating the manner in which the claims are to be construed.”¹⁸⁸ Yet other judges have explained how a patentee’s consistent use of a claim term throughout the specification construes that claim term “by implication.”¹⁸⁹

Courts rarely satisfy both claim construction canons.¹⁹⁰ Even with this seemingly unattainable goal, the Federal Circuit has created few, if any, exceptions describing when importing claim limitations from the specification may be appropriate. The *Lizardtech, Inc. v. Earth Resource Mapping, Inc.* case is noteworthy because the Federal Circuit found that importing claim limitations *was* proper when a patent contained no alternative embodiments.¹⁹¹

The non-deferential standard of review for a lower court’s claim construction appears to be the most scrutinized factor behind the Federal Circuit’s high reversal rate.¹⁹² Notwithstanding, courts and scholars alike have underestimated a more fundamental ingredient, namely, the conflict between the two claim construction canons. Even though the Federal Circuit has submitted that it is possible to reconcile the conflicting claim construction canons,¹⁹³ most often, the reality is that courts inherently import claim limitations when construing claim terms in light of intrinsic evidence. If such guidelines appear murky to seasoned patent practitioners, the Federal Circuit, and even the Supreme Court, it is understandable why claim construction continues to baffle

186. *Id.* (emphasis added).

187. *Id.*

188. *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1345 (Fed. Cir. 2001) (approving the district court’s claim construction of a “dual lumen configuration” because the patents provided that the lumens were “all coaxial in structure”).

189. *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1271 (Fed. Cir. 2001).

190. *See supra* Part III (discussing the frequent problems with the two conflicting claim construction canons).

191. 433 F.3d 1373, 1375 (Fed. Cir. 2006) (per curiam) (“Claims are not necessarily limited to preferred embodiments, but, if there are no other embodiments, and no other disclosure, then they may be so limited.”).

192. *See* articles cited *supra* note 79 (citing various studies on reversal rates in the Federal Circuit).

193. *See supra* Section IV.A (discussing several courts, such as *Alloc* and *Phillips*, which instruct construers how to maintain a distinction between the two conflicting claim construction canons).

district court judges, many of whom do not possess any technical background.¹⁹⁴

C. *A Viable Solution*

Since the Federal Circuit reverses claim constructions at a relatively high rate¹⁹⁵ and has so far avoided modifying the standard of review,¹⁹⁶ it appears that the Federal Circuit is unwilling to grant lower courts more deference without first stabilizing the current claim construction procedure. A stable and predictable patent system provides incentives for inventors to invent and publicly disclose their findings.¹⁹⁷ The patent system may need to grant lower courts more deference, but *before* a court tampers with the *de novo* standard of review, a higher court must articulate a more clearly defined framework for construing patent claims. Though a dependable claim construction formula takes time to develop, one possible solution starts with eliminating the supposed restriction against importing claim limitations from intrinsic evidence. Secondly, and more intricately, authority needs to emphasize that judges should construe claim terms in light of intrinsic evidence *as a whole*. As such, judges would not be forced to attempt to distinguish between the two claim construction guidelines. Lastly, oftentimes the inventor's intentions and the skilled artisan's understanding of the invention are not readily ascertainable. If the intrinsic evidence has not clearly disavowed claim scope, judges should use the enablement standard to help assess whether expressly disclosed embodiments (a) "define the outer limits" of the claims, or (b) merely exemplify the extent of the invention.¹⁹⁸ Hence in this scenario construers should ask if the patentee enabled the skilled artisan to practice the invention in the "undisclosed embodiment"¹⁹⁹ contemplated by the litigation.

194. See *supra* note 80 (quoting several judges who have openly expressed their discontent with the claim construction reversal rate by the Federal Circuit).

195. See *supra* note 79 (discussing studies on the reversal rate by the Federal Circuit).

196. See *supra* notes 82-83 (referring to the *Amgen* and *Phillips* cases).

197. See Thomas P. Burke, *Software Patent Protection: Debugging the Current System*, 69 NOTRE DAME L. REV. 1115, 1119 (1994) (discussing how a good patent system provides predictable rewards as incentives for inventors to invent). See also Ted Baker, *Pioneers in Technology: A Proposed System for Classifying and Rewarding Extraordinary Inventions*, 45 ARIZ. L. REV. 445, 461 (2003) (noting that a patent system should offer predictable incentives for extraordinary inventors).

198. See *supra* note 178 (quoting *Phillips* language regarding the difficulty of determining the reach of a patent).

199. As used here, "undisclosed embodiment" refers generally to an embodiment and/or application that is not explicitly disclosed in a patent, though language of the patent arguably

Critics might argue that eliminating the restriction against importing claim limitations from intrinsic evidence is a radical proposal, but further inspection reveals minimal disturbance to current claim construction practice for several reasons. Courts recognize that construing a claim in light of the specification while avoiding the temptation to import limitations is difficult.²⁰⁰ From time to time, these same courts incorporate at least one or more of the limitations mentioned throughout the intrinsic evidence.²⁰¹ Further, even the Supreme Court has had trouble resisting the need to import claim limitations from intrinsic evidence.²⁰² To put it simply, importing limitations from the specification of a patent has already become a routine part of claim construction practice. As it stands, the restriction against importing limitations from the specification is misleading. While it remains true that specific limitations from the specification should generally not enter the claim set, the time has come to drop this claim construction canon.

Higher courts have long instructed judges to look to the entire specification and avoid limiting claims to specific embodiments and specific language.²⁰³ In a way, much of the proposed solution simply reworks the existing claim construction canons. This revision preserves the meaning behind the restrictive canon by emphasizing that judges should construe based on the specification *as a whole*. One might argue that acceptance of importing claim limitations from the specification may provide a slippery slope for narrowing patentees' rights.²⁰⁴ But, as long as authority instructs judges to construe claim language from the specification in its entirety, judges will not be more prone than they are today to import certain limitations from the specification. If anything, instructing judges to be mindful of all intrinsic evidence may provide them with a better perspective on the invention, thereby reducing the likelihood of extraneous limitations. By contemplating all intrinsic evidence taken together, judges will gain a more robust understanding of the invention. A more robust understanding will better equip judges to

contemplates usage in such contexts. Patent litigation can often arise over and revolve around undisclosed embodiments and/or applications.

200. *See supra* Section IV.B (discussing how courts are starting to recognize that courts must import some limitations from intrinsic evidence).

201. *Id.*

202. *See United States v. Adams*, 383 U.S. 39, 49 (1966) (limiting an independent claim according to the specification). *See also supra* Section ILE & Part III.

203. *See supra* Section IV.A (citing numerous courts that stressed consulting the specification and other intrinsic evidence as a whole).

204. *Supra* notes 118-119.

construe claims according to the acumen of one skilled in the art. Furthermore, courts today are already importing limitations as needed.²⁰⁵

As far as the intrinsic record goes, looking to the specification as a whole generally means that judges should not import specific limitations from specific embodiments.²⁰⁶ It also means that judges should not solely rely on isolated portions of the specification if alternative or differing language exists.²⁰⁷ Of course, exceptions to this general principle are still necessary. For example, when all embodiments discuss a particular limitation, or when a limitation appears imperative to the invention, or when certain claims correspond with certain embodiments in the specification, a judge may have good reason to limit the claims to less than the specification as a whole. This solution does not suggest that judges review entire patent specifications prior to construing claim language. Rather, adverse litigants will still be required to highlight potentially narrowing and/or broadening language.

At times, claim scope must necessarily extend to conceptual permutations beyond the intrinsic record. Just as the exemplary door “hinge” may be suitable for use outside the disclosed automotive embodiment,²⁰⁸ the four corners of a patent should not confine patentees who disclose technology readily available for practice in undisclosed embodiments. Absent any limiting language on the intrinsic record, the question becomes, “How broadly would a skilled artisan construe the claimed language based on the specification as a whole?”

Just as the reasonable person in tort law is a bit inexplicable,²⁰⁹ the skilled artisan in patent law is also hard to conceptualize at times. Much of the reason why courts look to intrinsic and extrinsic evidence in claim construction is because the skilled artisan is merely a hypothetical

205. See *supra* Section IV.B (discussing how construers have been importing claim limitations from the specification as needed for years now).

206. See, e.g., *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 804-07 (Fed. Cir. 2007) (refusing to limit the claim term “curved” to “a nonangular continuous bend” as alluded to in the preferred embodiment and refusing to limit the claim term “transverse” to a strictly perpendicular arrangement based on the preferred embodiment and drawings in the patent). See also *In re Omeprazole Patent Litig.*, 483 F.3d 1364, 1372 (Fed. Cir. 2007) (refusing to import a specific temperature limitation mentioned in an example from the specification).

207. See, e.g., *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1361 (Fed. Cir. 2008) (approving the lower court’s finding that the claim term “and” means “or” based on the independent claim itself, various dependent claims, and the specification).

208. See *supra* text following note 125 (providing an example of a patented invention that should not be limited to the precise language of the patent).

209. See ROGER E. MEINERS, AL H. RINGLEB & FRANCES L. EDWARDS, *THE LEGAL ENVIRONMENT OF BUSINESS* 143 (Cengage Learning, 9th ed. 2005) (explaining the theoretical concept of the reasonable person in the context of negligence and duty of care).

person who is unavailable for consultation.²¹⁰ Robert Harmon points out that since authors may not intend extrinsic sources for skilled artisans, such sources may not best represent a skilled artisan's interpretation.²¹¹ However, a skilled artisan is nevertheless knowledgeable. Judges characterize the skilled artisan as technologically savvy²¹² and "sufficiently informed."²¹³ The skilled artisan, therefore, is likely capable of understanding various applications of an invention in embodiments other than those disclosed by the patent. In light of this, the skilled artisan may take an expansive view on the scope of patent claims when appropriate.

Even though the skilled artisan may be capable of expansively construing an invention beyond the four corners of a patent, construers need some reasonably objective boundary. This boundary could aid construers in determining whether disclosed embodiments limit or merely exemplify the scope of the invention.²¹⁴ This solution recommends using a boundary based on the enablement requirement. Enablement requires that a specification enable the skilled artisan to make and use the invention.²¹⁵ One logical way to convince a court that an invention extends to undisclosed embodiments and/or applications is to show that the inventor has enabled such practice. To some degree, this solution takes the reverse sequence of a typical validity analysis, in which enablement is assessed after the patent claims are construed.²¹⁶

Regarding enablement, the Federal Circuit indicated that a skilled artisan should not have to perform "undue experimentation" to practice the invention.²¹⁷ And even if "undue experimentation" lacks objectivity, here would be a good opportunity to employ the eight *Wands* factors.²¹⁸ Most of the *Wands* factors appear to be rather adaptable and appropriate in this context. For instance, the first *Wands* factor would ask how much experimentation is necessary to practice this invention in the undisclosed

210. ROBERT L. HARMON, PATENTS AND THE FEDERAL CIRCUIT 323-25 (8th ed. 2007).

211. Harmon, *supra* note 210, at 325.

212. See *SRI Int'l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1199 (Fed. Cir. 2008).

213. See *Witherow Steel Corp. v. Donner Steel Co.*, 31 F.2d 157, 187 (W.D.N.Y. 1929).

214. See *supra* note 178 (noting how the Federal Circuit acknowledged the difficulty in defining the outer limits of claim language).

215. See *supra* text accompanying note 64. See also *supra* Subsection II.B.2; 35 U.S.C. § 112 ¶ 1 (2006).

216. Thomas Chen, *Patent Claim Construction: An Appeal for Chevron Deference*, 94 VA. L. REV. 1165, 1169 (2008) (explaining how a typical validity analysis involves construing the claims and then comparing the construed claims to the specification to assess enablement).

217. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988) (citing *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986)).

218. See *supra* note 66 (listing the *Wands* factors).

embodiment.²¹⁹ The second factor would ask how much guidance the intrinsic evidence provides for practicing this invention in the undisclosed embodiment.²²⁰

Critics might argue that this will only further muddy the claim construction analysis. But, a high-level roadmap of the recommended claim construction process would follow: (1) interpret claim language according to *Phillips*, looking initially to words' ordinary meanings; (2) import claim limitations *only* where called for by intrinsic evidence *as a whole*; and (3) determine, as needed, whether the disclosed embodiments enable a skilled artisan to practice the invention in the undisclosed embodiment.

D. *The Proposed Solution at Work*

Review of the oft-cited *Renishaw* case under the proposed solution may help demonstrate this solution's feasibility. In *Renishaw*, literal infringement of the probe in the '904 Patent turned on the not-so-ordinary meaning of the term "when."²²¹ Looking to language throughout the entire specification, the court determined that "when" meant "as soon as possible after" rather than "at or after the time that."²²² To support this construction, the opinion properly cited specific language such as the "instantaneous position" of the stylus, the detection of "the *instant of contact*" between the stylus and a workpiece, and the "*instant at which the stylus tip 15 first contacts a workpiece.*"²²³ Since the '904 Patent was replete with precise, temporal references, as Judge Clevenger pointed out, "when" seems to better align with the "as soon as possible after" construction.²²⁴ Though the court properly construed "when" in light of the specification as a whole, the court nevertheless violated the sister claim construction canon by importing a limitation

219. *Cf. In re Wands*, 858 F.2d at 737 (stating the first factor as "the quantity of experimentation necessary").

220. *Id.* (stating the second factor as "the amount of direction or guidance presented").

221. *See supra* text accompanying notes 34-40 (discussing the basic facts of *Renishaw*). *See also Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250-51 (Fed. Cir. 1998). Had *Renishaw* made slightly broadening remarks or raised an argument under the Doctrine of Equivalents, this case might have seen a different result. *See Renishaw*, 158 F.3d at 1253 (noting that only the issue of literal infringement was raised at the trial level).

222. *Renishaw*, 158 F.3d at 1250, 1251-52 (finding that "when" did not mean at "some appreciable time thereafter").

223. *Id.* at 1252 (citing language from different parts of the specification including the "Summary of the Invention," the "Description of Preferred Embodiments," and the prior art sections). *See also* U.S. Pat. No. 5,491,904 (filed Apr. 21, 1995).

224. *Renishaw*, 158 F.3d at 1250-51 (indicating that *Renishaw* urged broad dictionary-based definitions while *Marposs* urged the "as soon as possible after" construction).

from the specification into the word “when.”²²⁵ To argue that the court did not import a limitation from the specification is a fallacy. The proposed solution accepts that construers, like the *Renishaw* panel, may need to selectively import limitations from the specification at times.²²⁶ Even though this panel was sitting without the benefit of *Phillips*, the court should have been able to import the necessary limitations without having to justify its course of action in a three-page explanation on how to satisfy both claim construction canons.²²⁷ Moving forward, the *Nystrom v. Trex Co.* case is helpful in reviewing the latter half of the proposed solution.

Setting aside the prosecution history,²²⁸ the specification alone of U.S. Patent No. 5,474,831 (the '831 Patent) at issue in *Nystrom* provides workable facts. The '831 Patent teaches a decking board with a convex top surface primarily for draining water quickly.²²⁹ A concave bottom surface allows a user to stack the boards efficiently.²³⁰ In the course of assessing whether the “board” in claim one included boards of composite materials, the *Nystrom* court found “no clear disavowal of claim scope,” yet no evidence to support that “board” included anything more than “wood cut from a log.”²³¹ Hence it was not so clear whether the court should have limited “board” to the disclosed embodiments and all other intrinsic evidence. Per the proposed solution, the construers should have asked if *Nystrom* enabled the skilled artisan to practice the invention with boards made of composite materials. The *Wands* factors can help assess whether a patent enables such practice without undue experimentation.²³²

As adapted, the first *Wands* factor would ask how much experimentation is necessary to use boards made of composite materials as disclosed in the '831 Patent. Based on the roughly five objectives

225. See *supra* text accompanying notes 138-142.

226. See *supra* Section IV.B (discussing the need to import limitations from intrinsic evidence).

227. See *Renishaw*, 158 F.3d at 1247-50 (discussing the proper claim construction technique as of 1998).

228. *Nystrom v. TREX Co.*, 424 F.3d 1136, 1144 (Fed. Cir. 2005) (noting that during the prosecution of the patent with the PTO the applicant made remarks such as the invention is an advancement “in the art of exterior wood flooring,” other prior art is “clearly not concerned with materials made from wood,” and some boards may have flaws when cut from a certain part “of a log”).

229. See U.S. Patent No. 5,474,831 col.2 ll.13-19 (filed July 13, 1992).

230. '831 Patent.

231. 424 F.3d at 1145.

232. See *supra* note 66 and accompanying text (discussing all eight *Wands* factors). See also *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1998).

mentioned in the '831 Patent,²³³ no more than two would require minimal, if any, experimentation to achieve a similar effect on a composite board. Though it appears a coincidental benefit, the "slight cushioning effect" would probably be different in a composite material. Further, a composite board will likely have a different surface texture causing water to drain at a different rate. Even so, it is hard to imagine an artisan experimenting much with the suggested radius of the convex top surface. This is particularly true due to comfort considerations.²³⁴ In general, little to no experimentation appears necessary to implement this invention on boards made of composite materials. The second and third *Wands* factors look to the amount of guidance and working examples the '831 Patent provides for implementing composite boards in this convex fashion. The '831 Patent only mentions that a variety of materials are used in these types of decking applications.²³⁵ The majority of the "Detailed Description" does not refer to the composition of the board.²³⁶ Even though a skilled artisan may not need much guidance to practice the invention with composite boards, the '831 Patent does not provide guidance or working examples specifically in the composite context.

Fourth, what is the nature of these convex decking boards? Unlike the touch probe in *Renishaw* that valued near-instantaneous signaling upon stylus deflection,²³⁷ nowhere does the '831 Patent vitalize that the decking boards come from wood or logs. The heart and novelty behind the '831 Patent focus on the geometric shape of decking boards, not their material composition.²³⁸ This factor weighs heavily in favor of enablement. The next three *Wands* factors look at the sophistication of prior art, the skill of those practicing the art of decking boards, and the predictability of decking boards. The major composite decking companies in existence today did not form until several years after Nystrom filed for the '831 Patent.²³⁹ However, the "Background of the Invention" section of the '831 Patent indicates that Nystrom knew or at

233. See '831 Patent col.2 ll.7-37.

234. '831 Patent col.2 ll.15-16 (discussing how the upper surface of the board is convex yet is still comfortable to stand and walk on).

235. '831 Patent col.1 ll.13-14.

236. '831 Patent cols.3-4.

237. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1251-52 (Fed. Cir. 1998) (providing examples of language from the disputed patent that showed a necessity for near-instantaneous signaling).

238. See generally '831 Patent.

239. See '831 Patent (filed July 13, 1992). See also Trex Company—Company Information, <http://www.trex.com/about/> (mentioning that Trex formed in 1996 and went public in 1999); Correct Building Products—Company Information, <http://www.correctdeck.com/company/default.htm> (indicating the company was founded in 1999).

least predicted that a “variety of specialized flooring materials” were developing.²⁴⁰ Moreover, some of the same composite decking companies that formed in the late 1990s also refer to their products with the term “board.”²⁴¹ On the other hand, even though the ’831 Patent is concerned with the orientation of growth rings in the boards,²⁴² composite decking boards are probably more sophisticated than Nystrom’s invention. Overall, these three factors are relatively neutral on enablement in this case. Lastly, the eighth *Wands* factor suggests looking to the breadth of the claims in the ’831 Patent.²⁴³ This factor suggests enablement since claim sixteen specifies a “wood decking board” while claim one does not specify a particular kind of “board.”²⁴⁴ The Federal Circuit indicated that this distinction suggests that “board” in claim one should not be limited to wood boards because construers presume different meanings when different claims use different combinations of words.²⁴⁵

Aside from the more polarized limitations in the prosecution history, the ’831 Patent itself lacked guidance and working examples in the composite boards context. Other factors, such as the nature of the invention and the breadth of the claims, however, weighed strongly in favor of finding the ’831 Patent to enable practice beyond the disclosed embodiments. Since the novelty of this invention was in the board’s shape, and not its composition, it is likely that little to no experimentation would have enabled practice with composite decking boards.

V. CONCLUSION

The Federal Circuit has settled on a holistic approach to claim construction.²⁴⁶ This approach requires consulting all intrinsic evidence when construing the scope of claim language.²⁴⁷ This approach is fundamentally fair since it looks to the context in which the inventor

240. See ’831 Patent col.1 ll.13-14.

241. See, e.g., Trex Company—Frequently Asked Questions, <http://www.trex.com/faqs/> (referring to a “Trex deck *board*”) (emphasis added).

242. ’831 Patent col.3 ll.25-35 (discussing the importance of orienting the convex side of the growth rings upward).

243. See *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

244. ’831 Patent cols.4-5.

245. *Nystrom v. Trex Co.*, 424 F.3d 1136, 1143 (citing *Tandon Corp. v. U.S. Int’l Trade Comm’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987)).

246. See *supra* Subsection II.D.3 (discussing the *Phillips* decision to prioritize intrinsic evidence).

247. See *supra* Subsection II.D.3 & Section IV.A.

envisioned the invention at the time of drafting. Despite fairness, reversal rates by the Federal Circuit remain abnormally high.²⁴⁸ High reversal rates indicate instability and uncertainty within the patent system. Part of the problem is that judges have trouble construing claim language according to the specification without limiting claim language according to the specification. The line between these two objectives is very fine and oftentimes nonexistent. In an effort to self-regulate, as is common practice in the legal profession,²⁴⁹ the Federal Circuit needs to eliminate any supposed distinction and acknowledge that claims may be limited according to the specification as a whole. Clarification and consolidation of the claim construction canons will reduce confusion about the acceptability of limiting claim language as needed. Furthermore, the language of a methodically drafted patent often does not limit the invention to the words on the intrinsic record. The Federal Circuit has acknowledged the difficulty in defining the scope of any particular claim term that extends beyond the intrinsic evidence.²⁵⁰ In these instances, courts should ask to what extent the patent has enabled one skilled in the art to practice the invention. With time and effective scrutiny, claim construction should become more predictable.

If the Federal Circuit does not act quickly, Congress may eventually pass one of the recurring patent reform bills, some of which may further bog down PTO examiners.²⁵¹ The Intellectual Property Owners Association (IPO) describes the most recent proposal for change, the Patent Reform Act of 2007,²⁵² as “the most significant in more than fifty years.”²⁵³ Other scholars believe the legislation improperly shifts the PTO’s burden of disproving patentability to a

248. See *supra* note 79 (discussing studies on the claim construction reversal rate by the Federal Circuit).

249. See LISA G. LERMAN & PHILIP G. SCHRAG, *ETHICAL PROBLEMS IN THE PRACTICE OF LAW* 20 (2d ed. 2008).

250. See *supra* note 178 (referring to the challenge of defining the outer limits of claim language).

251. See, e.g., Dyk, *supra* note 5, at 767 (discussing how Congress has not *yet* assigned the PTO a significant role in infringement litigation even though PTO reexaminations are increasingly important to patent litigation).

252. S. 1145, 110th Cong. §§ 1-13 (2007).

253. IPO Letter Writing Campaign Opposing Applicant Quality Submissions, Intellectual Property Owners Association, Mar. 28, 2008, www.ipo.org (search “Opposing Applicant Quality Submissions”; then follow “AQS Campaign” hyperlink) (last visited Jan. 16, 2009). At the time, the IPO encouraged its members to speak out against the proposed legislation by discussing its unfavorable consequences. *Id.* (indicating particularly how the proposed applicant quality submissions (AQS) of Section 11 would burden applicants, increase costs for applicants, add complexity to the examination, and generally deter applicants from filing).

burden on applicants to prove patentability.²⁵⁴ These scholars believe such a shift would increase inequitable conduct claims regarding inadequate searches and consequently raise malpractice insurance premiums.²⁵⁵ Others fear the Reform Act's Section 14 curtailment of damages would severely impair ongoing U.S. efforts to guarantee intellectual property protection in foreign markets.²⁵⁶ In all, the effects of Congress revamping patent law may be drastic. The judicial branch, and specifically the Federal Circuit, is much more qualified than Congress to implement the needed refurbishing. This group of individuals routinely handles patent matters and should understand its intricacies better than any group of legislators in the country. The current claim construction process is workable, but the time for improvement is now.

254. Janet A. Pioli & Meredith Martin Addy, *The Patent Law Fun House: What Next?*, LANDSLIDE, Sept.-Oct. 2008, at 49-50. Pioli and Addy point out that the language of the current Patent Act indicates that "[a] person shall be entitled to a patent unless . . ." *Id.* (citing Act of July 19, 1952, 66 Stat. 792 (35 U.S.C. § 102 (2006))).

255. See Pioli & Addy, *supra* note 254, at 49.

256. Diane Bartz & Tom Ferraro, *Tech-Backed Patent Bill in Trouble in U.S. Senate*, REUTERS, Apr. 14, 2008, (quoting Scott Kieff, professor of law at Washington University School of Law in St. Louis).

