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Uncertainty and Unpredictability in Patent Litigation: The Time is Ripe for a Consistent Claim Construction Methodology

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I. INTRODUCTION

Corporations, in-house counsel and even trial litigators require certainty and predictability in order to develop products, businesses and litigation strategies. Lawyers need certainty and predictability to advise their clients of litigation risks and potential outcomes. Unfortunately, the field of patent infringement litigation currently lacks the certainty and predictability necessary to efficiently litigate (and resolve) cases. Trial courts currently struggle with patent claim construction, a critical issue in any patent case. Despite this struggle, claim construction is rarely resolved at the trial stage. The Federal Circuit changes the trial court's claim construction in approximately forty percent of its cases.\(^1\)


\(^1\) See infra notes 215-17 and accompanying text.
This article will explore claim construction and analyze the deficiencies of the current approach to claim construction. First, the article will explore the public policies of the patent system that impact claim drafting and claim construction issues, the statutory requirements of claim drafting and the Federal Circuit's claim construction procedures. Next, the article will demonstrate that the current practice does not provide certainty or predictability to patent litigants. It will attempt to explain why uncertainty is inherent in the current claim construction approach. Finally, the author will propose a methodology designed to reduce uncertainty and unpredictability in claim construction consistent with the public policy and general principles of United States patent law.

II. BACKGROUND

A. PATENT PROCESS AND POLICY

Public policy requires that a patent owner clearly and explicitly notify the public of the scope of the subject invention. The patent document itself should put the world on notice of the patent's boundaries.

1. The Public Policy of the United States Patent System. A patent is a statutory right granted to an inventor or the inventor's assignee by a national government to exclude other people from practicing the invention disclosed or claimed in the patent. A patent grants its owner a monopoly over the invention.

The United States patent system attempts to accommodate an inherent ideological tension. On one hand, the inventor's productive efforts presumably will have a positive effect on society through the introduction of new products and manufacturing processes into the economy. Competi-
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Tive conditions created by our free enterprise system are presumed to be the lifeblood of the United States economy. In addition, industrial innovation is essential to the nation’s welfare through productivity gains, economic growth, new jobs and higher standards of living that result from technological progress. Because of the high costs of research, development and commercialization associated with inventions, many commentators believe that United States industry depends on the safeguards provided by the patent laws. Thus, it has been strongly argued that modern industries, such as the pharmaceutical and biotechnology industries, could not exist without a strong and effective patent law system.

On the other hand, patents have a public price. Because a patent grants the owner the ability to monopolize the production, use, and sale of the subject matter claimed by the patent, these private monopoly rights may reduce or eliminate competition, thereby resulting in restricted output and higher consumer prices. Moreover, imitation and refinement of the invention are necessary to the invention itself and need to be encouraged.

Since its inception, the United States has attempted to balance the tensions inherent in its patent system. The United States Constitution empowers Congress “to promote the Progress of Science and useful Arts, by securing for limited times to authors and inventors the exclusive Right to their respective Writings and Discoveries.” Thus, Article I grants Congress the power to establish laws to encourage and reward individual effort by

in economic losses in innovating firms and thus lead to a reduction in the rate of industrial innovation in the United States); Honorable Howard T. Markey, The Constitutional Key ¶ n.02, 11-12 in Albany Law School, Annual Conference on Intellectual Property (1988).

9 See Richard W. Judy & Carol D’Amico, Workforce 2020: Work and Workers in the 21st Century xii, 2, 12-13, 60 (1997); Global Dimensions of Intellectual Property Rights in Science & Technology, supra note 8, at 3 (stating that we live in a world in which the economic health of nations is determined largely by the ability “to develop, commercialize, and most importantly, to appropriate (or capture) the economic benefits from scientific and technological (S&I) innovations.”).


11 Mossinghoff, supra note 10, at 105.


13 Bonito Boats, Inc., 489 U.S. at 146.

14 U.S. CONST. art. I, § 8, cl. 8.
means of private patent monopolies. Yet, Article I also limits Congress by requiring that patent legislation promote "the Progress of Science and useful Arts." The article prohibits issuance of patents which remove existing knowledge from the public domain or restrict free access to materials already available. In return for the patent monopoly, the patent laws also require the inventor to fully disclose the invention, so that upon the expiration of the twenty year monopoly period, "the knowledge of the invention enures to the people, who are thus enabled without restriction to practice it and profit by its use." Indeed, the Supreme Court has reminded us that patent rights are limited.

The patent monopoly was not designed to secure to the inventor his natural right in his discoveries. Rather, it was a reward, an inducement, to bring forth new knowledge. The grant of an exclusive right to an invention was the creation of society—at odds with the inherent free nature of disclosed ideas—and was not to be freely given. Only inventions and discoveries which furthered human knowledge, and were new and useful, justified the special inducement of a limited private monopoly.

Thus, the United States patent system attempts to reconcile two fundamental competing interests. It tries to provide meaningful incentives to innovate; yet, it also tries to insure that patents are not used to deprive the public and other innovators from use of that which should be in the public domain. In order to effectively achieve this balance, both parties to the patent system, the patentee and the public, must understand the scope of the patent. The parties must understand what falls within the exclusive grant

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15 Id.; see also Graham, 383 U.S. at 9 (There is a "line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not." (quoting correspondence of Thomas Jefferson)).
16 Graham, 383 U.S. at 6.
20 See 35 U.S.C. § 200 (1994), (amended 2000) (stating that it is the policy and objective of Congress to use patent system to promote utilization of inventions); Grant v. Raymond, 31 U.S. (6 Pet.) 218, 241-42 (1832) (stating that a patent "is the reward stipulated for the advantages derived by the public for the exertions of the individual, and is intended as a stimulus to those exertions").
of the patent and what has been dedicated to the public. Indeed, this is the basic purpose of the patent document.

2. Overview of the Patent Prosecution Process. The United States authorizes patents for new, unobvious and useful inventions. To obtain a patent, an inventor must timely file an application with the United States Patent and Trademark Office ("PTO"). The PTO assigns each application to an examiner trained in the relevant technology. The examiner then conducts a search of the prior art and determines whether the applicant's invention complies with the legal requirements of patentability. If the examiner allows the claims, the PTO will issue a patent. Patent protection lasts twenty years from the date on which the application was filed. Once the patent is issued, it is presumed to be valid.

The basic written structure of a patent contains two elements: the specification and the claims which are technically part of the specification. The specification must 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 so as to enable any person skilled in the art of the invention to make and use the invention. The specification then concludes with one or more claims that particularly point out and distinctly claim the subject matter that the applicant regards as his invention.

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23 Prior art constitutes those references which may be used to determine novelty and unobviousness of claimed subject matter in a patent application or patent. A reference must be in the art pertinent to the invention in question or in an analogous art. DONALD S. CHISUM, CHISUM ON PATENTS G1-18 (1999).
24 Id. at OV-1.
26 35 U.S.C. § 154(a)(2) (1994). Formerly patents extended for seventeen years from the date the patent issued. However, as a result of the Uruguay Round Agreements Act, patents now endure twenty years from the date the application was filed. MARTIN J. ADELMAN ET AL., PATENT LAW 1191 (unpublished version Fall 1997) (on file with author).
29 Id.
30 Id.
31 Id.
When a patent issues, the specification and drawings filed with the application are printed and distributed as part of the issued patent. The claims, specification and PTO file history constitute the public record of the patentee’s claim. Competitors are entitled to review the public record, apply established rules of claim construction, ascertain the scope of the patentee’s claimed invention and use this information to design around the claimed invention. In addition, full disclosure of the invention promotes the progress of science and useful arts by eventually giving the public at large a right to make, construct, use and render the thing invented. Thus, the patent is a deed which sets out the metes and bounds of the intellectual property the inventor owns for the term and puts the world on notice either to avoid trespass or to purchase all or part of the property right it represents.

B. THE STATUTORY REQUIREMENTS REGARDING PATENT CLAIM LANGUAGE

Since their inception, the United States patent statutes have required a patentee to fully and clearly describe the subject matter and scope of the invention. Thus, the United States has historically required the patent to clearly put the public on notice of the boundaries of the invention.

1. The Early Patent Acts. The First Congress convened the year after the United States Constitution was ratified. Almost immediately, Congress began receiving proposals for statutes implementing the Intellectual Property Clause in the Constitution. However, Congress did not enact a patent statute until 1790. On January 8 of that year, President George Washington addressed Congress about the state of the union. He emphasized “the expediency of giving effectual encouragement, as well to the introduction of new and useful inventions from abroad, as to the exertions of skill and genius
in producing them at home." Soon thereafter, on April 10, 1790, President Washington signed the first patent statute.

The Act of 1790 authorized the issuance of a patent for "any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used," and provided that a designated group of executive officers determined that the invention was "sufficiently useful and important." The 1790 Act required the patent applicant to file a specification "so particular," and if feasible a model of the invention "so exact," that it could be distinguished from the prior art and that a skilled person could replicate it "to the end that the public may have the full benefit thereof, after the expiration of the patent term." This requirement allowed the government officers reviewing the application to have the "full means to examine and understand the claim to an invention better, and decide more judiciously whether to grant a patent or not." In addition, the Act's supporters believed that the required specific disclosures would give the world fuller and more accurate descriptions of the invention than required under the laws and practice in England. The 1790 Act also provided that, in defending against a patent infringement action, a party could introduce evidence "tending to prove that the specification . . . does not contain the whole of the truth concerning his invention or discovery; or that it contains more than is necessary to produce the effect described."

Three years later, Congress replaced the 1790 Act. Unlike the prior Act, the Act of 1793 gave patent issuing responsibilities to the Secretary of State. Patentable subject matter was expanded to include the composition of matter or improvements thereon. The Act also required the applicant to "deliver a written description of his invention, . . ., in such full, clear and exact terms, as to distinguish the same from all other things before known,

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38 Id.
39 Id.; Act of April 10, 1790, ch. 7, § 1, 1 Stat. 109-110 (repealed 1793).
40 Act of April 10, 1790, § 1, 1 Stat. 109-110.
41 The Secretary of State, the Secretary of War and the Attorney General. Id.
42 Id.
43 Id. § 2.
44 See Hogg v. Emerson, 47 U.S. (6 How.) 437, 479-80 (1848) (discussing the 1790 Act).
45 Id.
46 Act of April 10, 1790, ch. 7, § 6, 1 Stat. 111 (repealed 1793).
47 Act of February 21, 1793, ch. 11, 1 Stat. 318 (amended 1836).
48 Id. § 1, 1 Stat. 319-320.
49 Id. § 1, 1 Stat. 319.
and to enable any person skilled in the art or science . . . to make, com-
pound, and use the same," although this description was not actually
titled a "specification." The 1793 Act included the defense of an incom-
plete or unclear specification, as seen in the prior Act. 51

Thus, under the first two Patent Acts, the specification had two purposes.
First, it disclosed the manner of constructing the invention so as to enable
artisans to make and use it; consequently, the specification allowed the
public full benefit of the invention after expiration of the patent term. 52
Second, it put the public on notice as to what the patentee claimed as his
own invention so that others would not innocently infringe the patent. 53
As early as 1832, the Supreme Court concluded that the requirement of a
correct specification and description of the invention did not depend on
whether or not the inventor intended to deceive the public. 54
According to the Court, the appropriate question was whether or not the patent made the
public aware of the scope of the invention. 55

While the first Patent Acts required specific disclosure of an invention,
the Acts did not require claims nor did they require a thorough examination
of the patent application. 56

Apparently, the omission of these requirements drove Eli Whitney out of business. 57
Whitney filed a fairly detailed
specification of the cotton gin. Unfortunately, the invention was easy to
copy. Competitors and copyists simply filed nearly-identical patent
applications to receive their own patents. 58

In 1836, Congress enacted and President Andrew Jackson signed a major
revision to the patent laws. 59
The 1836 Act created a Patent Office as well
as a system for examining patent applications. Thus, for the first time, a
governmental body, rather than a few individuals, were to examine patent
applications to determine their novelty and worthiness of receiving a

50 Id. § 3, 1 Stat. 321.
51 Id. § 6, 1 Stat. 322.
53 Id.; see also Grant v. Raymond, 31 U.S. (6 Pet.) 218, 247 (1832) (stating that a correct specification
and description of the invention was "necessary in order to give the public, after the privilege shall expire,
the advantage for which the privilege is allowed, and is the foundation of the power to issue the patent").
54 Grant, 31 U.S. at 246-47.
55 Id. at 247.
56 Homer J. Schneider, Claims to Fame, 71 J. PAT. & TRADEMARK OFF. SOCIETY 143, 144 (1989).
57 Id. at 145.
58 Id.
The new Act not only retained the specification requirements, but it also introduced the requirement of clear claiming. In addition to describing the invention in the specification and drawings, the inventor needed to “particularly specify and point out the part, improvement, or combination, which he claim[ed] as his own invention.” A patent could be invalidated because of a “defective or insufficient description or specification, or by reason of the patentee claiming in his specification as his own invention, more than he had or shall have a right to claim as new.” Thus, the concept of the patent claim, separate from the specification, was born.

In 1870, Congress replaced the 1836 Act. For the most part, the 1870 Act retained the 1836 Act’s provisions. However, the 1870 Act further required the applicant to “particularly point out and distinctly claim” the invention. Thus developed a basic tenet in American patent law: the patent claims “measure the invention.” Everything claimed, if it is rightfully patentable, is protected; everything not claimed, even if it would have been patentable by the inventor, is not protected, but is dedicated to the public.

In addition, the patent laws now specifically required exactness in the claim language. This requirement not only secured the inventor all to which he was entitled, but it also apprised the public of what was still open.

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60 WILLIAM C. ROBINSON, THE LAW OF PATENTS FOR USEFUL INVENTIONS §§ 48-50 (1890).
62 Id.
63 Id. § 13, 5 Stat. at 122.
64 Act of July 8, 1870, ch. 230, § 26, 16 Stat. 198, 201. The Act also specifically distinguished between the specification and the claims. Id.
65 See, e.g., Cont’hui Paper Bag Co. v. E. Paper Bag Co., 210 U.S. 405, 419 (1908) (explaining that while the inventor must describe the best mode of applying the principle of his invention, the description does not necessarily measure the invention).
67 See Act of July 8, 1870, § 26, 16 Stat. 201 (requiring the claims to “particularly point out and distinctly claim”).
68 McClain, 141 U.S. at 424; see also General Elec. Co. v. Wabash Appliance Corp., 304 U.S. 364, 369 (1938) (“Patents, whether basic or for improvements, must comply accurately and precisely with the statutory requirement as to claims of invention or discovery. The limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others, and the assurance that the subject of the patent will be dedicated ultimately to the public. The statute seeks to guard against unreasonable advantages to the patentee and disadvantages to others arising from uncertainty as to their rights. The inventor must ‘inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.’ ”) (citations omitted); White v. Dunbar, 119 U.S. 47, 51-52 (1886) (“Some persons
The clear claiming provision relieved the courts "from the duty of ascertaining the exact invention of the patentee by inference and conjecture, derived from a laborious examination of previous inventions, and a comparison thereof with that claimed by him." 69

Thus, since 1836, the patent laws have not only required that an applicant fully explain the invention, but they also have demanded that the inventor specify and point out that which he claims as his own invention or discovery. As the Supreme Court proclaimed in 1876, in language easily applicable to our "modern," "high-tech" world, the United States patent system was so well-developed that claim language could (and should) be sufficiently clear and precise:

The growth of the patent system in the last quarter of a century in this country has reached a stage in its progress where the variety and magnitude of the interests involved required accuracy, precision, and care in the preparation of all the papers on which the patent is founded. It is no longer a scarcely recognized principle, struggling for a foothold, but it is an organized system, with well-settled rules, supporting itself at once by its utility, and by the wealth which it creates and commands. The developed and improved condition of the patent law, and of the principles which govern the exclusive rights conferred by it, leave no excuse for ambiguous language or vague descriptions. The public should not be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights. The genius of the inventor, constantly making improvements in existing patents,—a process which gives to the patent system its greatest value—should not be restrained

seem to suppose that a claim in a patent is like a nose of wax which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express. The context may, undoubtedly, be resorted to, and often is resorted to, for the purpose of better understanding the meaning of the claim; but not for the purpose of changing it, and making it different from what it is. The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.

Keystone Bridge, 95 U.S. at 278.
CONSISTENT CLAIM CONSTRUCTION

by vague and indefinite descriptions of claims. . . .

[N]othing can be more just and fair, both to the patentee and to the public, than that the former should understand, and correctly describe, just what he has invented, and for what he claims a patent.70

2. The Patent Act of 1952. In 1952, Congress passed yet another patent act.71 For the most part, this Act, contained in Title 35 of the United States Code,72 remains in effect today. To a large extent, the 1952 Act simply rearranged prior statutory provisions and adopted, by statute, court decisions and Patent Office practice.73 Section 112 of the 1952 Act retained the requirement that the inventor clearly claim the patent’s scope.74

The first two paragraphs of the current § 112 and their progeny combine to require the patentee to describe the invention so that others may construct and use it after expiration of the patent, and to inform the public so that it may be known which features may be safely used or manufactured.75 The first paragraph of § 112 requires that the specification “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

70 Merrill v. Yeomans, 94 U.S. 568, 573-74 (1876).
73 Chisum, supra note 23, at OV-12.
75 Schriber-Schroth Co. v. Cleveland Trust Co., 305 U.S. 47, 57, 61 U.S.P.Q. (BNA) 382, 388 (1938) (“The object of the statute is to require the patentee to describe his invention so that others may construct and use it after the expiration of the patent and ‘to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license’. . . .”) (citations omitted); Universal Oil Prods. Co. v. Globe Oil & Ref. Co., 322 U.S. 471, 484, 61 U.S.P.Q. (BNA) 382, 388 (1944) (“As a reward for inventions and to encourage their disclosure, the United States offers a seventeen-year monopoly to an inventor who refrains from keeping his invention a trade secret. But the quid pro quo is disclosure of a process or device in sufficient detail to enable one skilled in the art to practice the invention once the period of the monopoly has expired; and the same precision of disclosure is likewise essential to warn the industry concerned of the precise scope of the monopoly asserted.”) (citations omitted); London v. Carson Pirie Scott & Co., 946 F.2d 1534, 1538, 20 U.S.P.Q.2d (BNA) 1456, 1458 (Fed. Cir. 1991); Hoganas AB v. Dresser Indus., Inc., 9 F.3d 948, 951, 28 U.S.P.Q.2d (BNA) 1936, 1939 (Fed. Cir. 1993) (stating that the function of the claim is to put one skilled in the art on notice); Application of Hammack, 427 F.2d 1378, 1382 (C.C.P.A. 1970) (stating that the paragraph two and its progeny provides those working in the area of patent “with the adequate notice demanded by due process of law, so that they may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance”) (citations omitted).
skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . ." Paragraph one of § 112 further requires the applicant to “set forth the best mode contemplated by the inventor of carrying out his invention.” Paragraph two of § 112 demands that the specification “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”

Although the first two paragraphs of § 112 serve the same purpose, i.e., to put the public on notice of the scope of the patent, the requirements of the two paragraphs are analytically distinct. The first paragraph of § 112 concerns the specification and adequacy of the invention’s description. It requires that the inventor adequately disclose the invention itself (the “description” requirement), the manner and process of making and using the invention (the “enablement” requirement), and the best mode of carrying out the invention contemplated by the inventor at the time of filing (the “best mode” requirement). Only the second paragraph of § 112 contains statutory requirements regarding the claim language itself. The claims must particularly point out and distinctly claim the subject matter which is sought to be patented. If the claims fail to meet this requirement, the patent will be held invalid as indefinite.

“Definiteness” means that “the language of the claims must clearly set forth the area over which the applicant seeks exclusive rights.” The requirement demands precision and definiteness in the language of the claim.

77 Id.
78 Id. ¶ 2.
82 Id.; Rengo, 657 F.2d at 551.
83 35 U.S.C. § 112 (1994), ¶ 2 (providing that claims must particularly point out and distinctly claim the subject matter which the applicant regards as his invention); see also Borkowski, 422 F.2d at 909 (“In reality, this means that applicant must particularly point out and distinctly claim the subject matter sought to be patented.”) (emphasis in original).
85 Rengo, 657 F.2d at 551 (citations omitted).
itself (as opposed to adequate disclosure or description). In *Rengo Co. v. Molins Machine Co.*, the Third Circuit addressed the difference between the description and definiteness requirements:

> [T]here is a subtle relationship between the policies underlying the description and definiteness requirements, as the two standards, while complementary, approach a similar problem from different directions. Adequate description of the invention guards against the inventor’s overreaching by insisting that he recount his invention in such detail that his future claims can be determined to be encompassed within his original creation. The definiteness requirement shapes the future conduct of persons other than the inventor, by insisting that they receive notice of the scope of the patented device.

Thus, the definiteness requirement fulfills a public notice function. The applicant must claim the invention with sufficient definiteness to enable others to discern the boundaries of the purported invention in order to provide notice to others of the limits “beyond which experimentation and invention are undertaken at the risk of infringement.”

The test for definiteness is whether a claim, when read in light of the specification, reasonably apprises those skilled in the art both of the utilization and of the patent’s scope. Importantly, an indefiniteness analysis not only considers the claim language, but it also looks at the specification and the complete patent document. If the claims, read in light of the

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86 *Id.; Borkowski*, 422 F.2d at 909.
87 *Rengo*, 657 F.2d at 551.
88 *Norton*, 449 F.2d at 555; see also *Rengo*, 657 F.2d at 551.
90 Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1 U.S.P.Q.2d (BNA) 1081 (Fed. Cir. 1986); Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452, 227 U.S.P.Q. (BNA) 293, 296 (Fed. Cir. 1985) (stating that the specification is the primary basis for construing the claims. "The allowability, or validity, of a claim depends, of course, on its subject matter meeting the statutory requirements for patentability and on the claim, per se, being 'distinct'—i.e. having a clear and definite meaning when construed in the light of the complete patent document.")
specifications, reasonably apprise those skilled in the art both of the utilization and scope of the invention and if the language is as precise as the subject matter permits, the courts can demand no more. The existence of an inescapable uncertainty will not deny the patentee of the fruits of his invention.\(^92\)

In addition, the prosecution history may be relevant in determining whether the claims are sufficiently definite.\(^93\) At trial, an expert may even testify as to the meaning of the claims with respect to the relevant art.\(^94\) The essential question is whether one who really wished to respect the patent would have any difficulty in identifying what the claim covered.\(^95\)

If the scope of the subject matter embraced by a claim is clear and if the applicant has not otherwise indicated that he intends that claim to be of a different scope, then the claim particularly points out and distinctly claims the subject matter which the applicant seeks to patent.\(^96\) In contrast, if the claims serve as "a shadowy framework" upon which are located words "lacking in precise referents in the specification" and requiring "elaborate explanations extraneous to both the specification and the claims," the claims are indefinite\(^97\) and the patent is invalid. Thus, the indefiniteness cases focus on the language of precision. Are the claims specific enough and do they contain enough detail?\(^98\) "A determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the

\(^92\) Georgia-Pacific, 258 F.2d at 136.


\(^94\) See N. Am. Vaccine, Inc. v. Am. Cyanamid Co., 7 F.3d 1571, 1580, 28 U.S.P.Q.2d (BNA) 1333, 1339-40 (Fed. Cir. 1993); Amgen, 927 F.2d at 1218; Shatterproof Glass, 758 F.2d at 624; cf. Personalized Media Communications, L.L.C. v. Int'l Trade Comm'n, 161 F.3d 696, 700, 48 U.S.P.Q.2d (BNA) 1880, 1884 (Fed. Cir. 1998) (finding of indefiniteness included consideration of expert testimony regarding how one of ordinary skill in the art would understand terms); id. at 706 (suggesting that extrinsic evidence may be appropriate as to the issue of indefiniteness if the terms are ambiguous).

\(^95\) Georgia-Pacific, 258 F.2d at 138; Mushler Found., Inc. v. Alba Trading Co., 150 F.2d 885, 889, 66 U.S.P.Q. (BNA) 183, 187 (2d Cir. 1945).


\(^97\) In re Hammack, 422 F.2d 1378, 1381-82, 166 U.S.P.Q. (BNA) 204, 207 (C.C.P.A. 1970).

\(^98\) See, e.g., N. Am. Vaccine, 7 F.3d at 1578-80 (focusing on the issue of whether, in view of the specification, one skilled in the art would know that the polysaccharides recited in the claims refer only to stereotypes that would result in a "clean backbone"); Shatterproof Glass, 758 F.2d at 624 (focusing on the definiteness issue regarding claimant's failure to recite the size of the glass sheets and the quality of coating).
consruer of patent claims.\textsuperscript{99} As such, the Federal Circuit has repeatedly stated that the issue of definiteness is a question of law.\textsuperscript{100}

Thus, the statutory history and the current patent statutes are clear. In order to provide notice to the public of the matters covered by the patent, the patent itself must articulate and claim the scope of the invention. The claim must be so clear that one skilled in the art reasonably understands the patent’s scope and the limits of patent protection.

C. PATENT LITIGATION: THE INCREASING PRESSURE OF CLAIM CONSTRUCTION ON THE TRIAL COURTS

In recent decades, patent infringement litigation has exploded. In addition, patentees now demand jury instead of bench trials. As a result, the trial courts face increasing pressure when hearing and deciding how to interpret claim terms disputed by the parties.

1. Claim Construction is a Critical Issue in Patent Infringement Litigation. Patent infringement is the unauthorized production, use, sale or offer to sell any patented invention.\textsuperscript{101} To enforce against infringement, the patent owner can file an action in the United States District Court.\textsuperscript{102} In the lawsuit, the patent owner has the burden of proving that the accused device infringes the patent.\textsuperscript{103} An accused infringer may assert defenses to the infringement charge, such as invalidity, unenforceability, laches, misuse or experimental use.\textsuperscript{104}

The determination of patent infringement involves a two-step process. First, the claim is interpreted to determine its proper scope and meaning. This process is called “claim construction” or “claim interpretation.” Second, a fact finder must determine whether the accused device falls within the scope of the properly interpreted claim.\textsuperscript{105}

\textsuperscript{99} \textit{Personalized Media Communications,} 161 F.3d at 705.

\textsuperscript{100} \textit{Id.} at 702; \textit{North Am. Vaccine,} 7 F.3d at 1579; \textit{Miles Lab., Inc. v. Shandon, Inc,} 997 F.2d 870, 874, 27 U.S.P.Q.2d (BNA) 1123 (Fed. Cir. 1993); \textit{Orthokinetics, Inc. v. Safety Travel Chairs, Inc,} 806 F.2d 1565, 1576, 1 U.S.P.Q.2d (BNA) 1081 (Fed. Cir. 1986); \textit{Shatterproof Glass,} 758 F.2d at 624.

\textsuperscript{101} 35 U.S.C. \textsection 271(a) (1994).


\textsuperscript{103} See \textit{Uniform Jury Instructions for Patent Cases in the United States District Court for the District of Delaware,} 1.3 (1993).


\textsuperscript{105} \textit{Read Corp. v. Portec, Inc,} 970 F.2d 816, 821, 23 U.S.P.Q.2d (BNA) 1426 (Fed. Cir. 1992).
The first step involves a linguistic and technical dispute about the meaning of claim terms and the scope of the claim. The dispute is not simply an academic exercise but strikes at the heart of any patent case. A decision on a specific claim construction can dispose of the entire case. The issue does not raise an objective straightforward issue. Instead, each party often has a strategic interest in advocating a particular claim construction. Typically, a patentee will advocate a broad interpretation of the claim in order to pursue an easier infringement proof. In contrast, the accused will typically advance a more narrow view of the claim. Moreover, claim construction disputes usually involve a number of different terms which the trial court must decide. Thus, in virtually all patent infringement cases, the parties have a significant claim construction dispute about a number of different claims. As discussed more below, the trial judge shoulders the heavy burden of interpreting all of these disputed terms which are highly likely to change at the appellate level.

2. The Explosion of Patent Infringement Litigation. Claim construction issues have become, and will continue to be, a critical issue in patent infringement law, in part, because of the explosion of patent litigation and the new corporate attitude toward patents. In the 1980s, patent infringement litigation dramatically increased.
example, in the late 1980s, the number of patent cases gradually increased from 1,129 to 1,215. In 1992, 1,474 patent cases were filed, nearly a 26% increase from the prior year. Patent filings have continued to increase, including a nearly 15% increase in 1997 and a 25% increase in 1998. Moreover, patent litigation is expected to substantially increase over the next five years.

The increase in patent litigation may be due to the new corporate view of intellectual property and intellectual property litigation. Increasingly, companies are using patents to protect their market share, drive competitors out of business and boost bottom lines through lucrative judgments and

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111 1990 DIRECTOR OF THE ADMIN. OFF. OF THE U.S. CTs. ANN. REP. 140, Table C-2A.
112 1992 DIRECTOR OF THE ADMIN. OFF. OF THE U.S. CTs. 183, Table C-2A.
113 1997 DIRECTOR OF THE ADMIN. OFF. OF THE U.S. CTs. ANN. REP. 133, Table C-2A; 1998 DIRECTOR OF THE ADMIN. OFF. OF THE U.S. CTs. ANN. REP. 147, Table C-2A.
114 See Is There a Future for IP and if So, at What Price?, PWC Financial Advisory Services Analysis of I.P.L.F. Survey Responses, at http://www.pwcglobal.com/extra/ansurveys.nsf/DocID/9F14FCCEBB&409DE852688900515A02 [hereinafter PricewaterhouseCoopers Survey] (discussing February 2000 survey of leading intellectual property practitioners, including judges, litigators, and corporate counsel, indicates that 90% of the respondents believed that there will be more intellectual property litigation over the next few years. In addition, 59% responded that there will be “much more” litigation. The respondents predicted that the majority of the future litigation will be in the patent arena).
115 Corporations are becoming much more aggressive about their existing and potential intellectual property. See, e.g., Paul T. Dacier: Hi-Tech Business Needs Higher Tech Courts, METROPOLITAN CORP. COUNS., Apr. 2000, at 40 (interview with Paul T. Dacier, Senior Vice President and General Counsel, EMC Corporation) (“We feel that in order for us to maintain our competitive position we must protect our intellectual property. Over the years, we have encountered people and companies that do not respect the intellectual property of others and will make efforts to obtain it unlawfully. It is important that we and other hi-tech companies be able to mount a quick response to those who try to take technology or otherwise misappropriate our intellectual property.”). In addition, companies are beginning to view intellectual property and related litigation as a business strategy. See, e.g., Bruce Rubenstein, Dominance of a New Industry at Stake, CORPORATE LEGAL TIMES, Feb. 1999, at 29 (quoting Monsanto’s Assistant General Counsel-Litigation, David F. Snively, “Our business, litigation and patent strategies have a common focus, and we have regular strategy sessions among the leadership of the different groups.”).
Today, companies should not only patent their core technology, but they should also patent their "complementary" intellectual property. A broad-based patent portfolio provides a company with patents it cannot only assert offensively against a potential infringer, but it also gives the company defensive leverage if it is the subject of a patent infringement lawsuit or seeks a more advantageous cross-licensing agreement. In addition, companies can generate significant profits by licensing patents to third parties. The licensing of complementary technology may generate profits without risking the company's competitive position in its core business. Finally, new companies often need a strong patent portfolio to attract investment capital. In short, companies are increasing their efforts to protect and profit from their intellectual property and patents. At the same time, patent litigation has increasingly become an accepted method of business practice in the United States.

3. The Increase in Patent Jury Trials. Claim construction has developed into a critical problem for the trial courts because, at the same time patent litigation exploded, litigants began to demand jury trials. Prior to the 1980s, claim construction issues did not present significant procedural issues because most patent trials were bench trials. Claim construction disputes could easily be handled at trial with little practical concern about whether the dispute presented a legal or factual issue.

Today, not only have the number of patent lawsuits increased dramatically, but the number of patent jury trials has exploded. In 1974, patent owners tried only seven percent of their cases to juries. By 1994, seventy percent of patent cases went to juries. For example, Honeywell collected $303 million in 1992 from eleven camera makers that infringed on its patented auto-focus technology. Honeywell does not even use the technology in its own products.

117 For example, Texas Instruments, which holds patents in such basic technologies as chip manufacturing and software systems, is believed to have generated significantly more than $2 billion in licensing fees since 1987. Kevin Rivette & Irving Rappaport, Golden Opportunities, LEGAL TIMES: SPECIAL REPORT-INTELLECTUAL PROPERTY, WEALTH AND WORRIES, Dec. 19, 1994, at 11.


119 Id.

120 Id. For example, Honeywell collected $303 million in 1992 from eleven camera makers that infringed on its patented auto-focus technology. Honeywell does not even use the technology in its own products. Rivette & Rappaport, supra note 117, at 11.

121 See Riddles, supra note 118, at C7 (stating the importance of protecting complementary technology).

122 Louis Rukeyser, Louis Rukeyser's Mutual Funds (Louis Rukeyser, McLean, VA), Sept. 2000, at 4-5.


124 Timothy L. Swabb, Federal Circuit Cannot Stop Runaway Jury Awards in Patent Suits: Companies
percent of patent trials were jury trials. Presumably, the increased demand for jury trials has resulted from the fact (and belief) that juries overwhelmingly find infringement. In addition, most practitioners believe that jury trials result in more lucrative damage awards.

With the advent of jury trials in patent cases, trial courts faced the procedural question of how to handle claim construction issues. Some trial courts treated claim construction as a jury issue. Others viewed claim construction as a matter of law. Indeed, the Federal Circuit appeared to have issued conflicting decisions on the question of whether claim construction was a matter of law for the court, or a factual question for a jury to determine. Finally, the Federal Circuit addressed (and resolved) this dispute in the landmark case of Markman v. Westview Instruments, Inc.

D. MARKMAN V. WESTVIEW INSTRUMENTS, INC.

In 1989, Herbert Markman patented a method to monitor the inventory of a dry cleaning business by using a computer system to log incoming and outgoing clothing articles in the inventory of a dry cleaning establishment.

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See PriceWaterhouseCoopers Survey, supra note 114 (reporting that sixty-six percent of respondents believed that a jury trial, more than a bench trial, would likely result in upholding patent validity. Sixty-eight percent of respondents believed that a jury trial, rather than a bench trial, would likely result in the finding of liability.); Brief for Amicus Curia, John T. Roberts nn.8, 9, Markman v. Westview Instruments, 517 U.S. 370, 38 U.S.P.Q.2d (BNA) 1461 (1996) (No. 95-26) (reporting that juries find patent infringement eighty-five percent of the time), available at 1995 WL 723674.

See PriceWaterhouseCoopers Survey, supra note 114 (reporting that eighty-eight percent of respondents believed that a jury trial, more so than a bench trial, would likely result in higher economic damages).

See, e.g., Mars, Inc. v. Conlux USA Corp., 818 F. Supp. 707, 707-713, 28 U.S.P.Q.2d (BNA) 1161, 1161-65 (D. Del. 1998) (finding that the jury's interpretations of the claims were supported by substantial evidence, the trial court denied defendant's motion for new trial).


A computer created a bar code label that was attached to an "article" in the "inventory" processed through the dry cleaning cycle. Using a bar code reader, a proprietor could read in the bar coded items and generate a report about the status of the dry cleaning inventory.

The patent owner and his licensee sued the manufacturer of a device that allegedly infringed the Markman patent and a dry cleaner that used the accused device. At trial, the judge granted defendants' motion for a directed verdict (now entitled a judgment of a matter of law). In reaching his decision, the trial judge held that the question of claim construction was a matter of law. After interpreting the subject claim language, the trial court found that, as a matter of law, the defendants did not infringe two of the patent claims at issue.

1. The Federal Circuit Opinion. The Markman plaintiffs appealed to the Federal Circuit. They argued that the district court had erred in reversing the jury's verdict as inconsistent with the claim terms because the jury, and not the court, was required to interpret claim terms. A Federal Circuit panel heard oral arguments on appeal and, sua sponte, ordered a hearing en banc. In a landmark decision, the Federal Circuit announced that the interpretation and construction of patent claims is a matter of law exclusively for the court. The majority of the court concluded that "in a case tried to a jury, the court has the power and the obligation to construe as a matter of law the meaning of the language used in the patent claim." In addition, the court concluded that because claim construction is a matter of law, the

134 Id.
135 Id.; see also Markman, 52 F.3d at 971-72.
136 Collectively referred to as "Markman."
137 Markman, 52 F.3d at 972.
139 Id. at 1536.
140 Id. at 1537-38.
141 Id. at 1538.
142 Markman, 52 F.3d 967.
143 Id. at 973-74.
144 Id. at 971, n.1.
145 Id. at 1537.
147 Id. at 979.
Federal Circuit reviews claim construction issues *de novo*.

As such, a district court's claim interpretation is entitled to no deference.

The majority firmly rejected the suggestion that a patentee's subjective intent as to claim terms may be an issue or even relevant. Instead, claim interpretation involves the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean.

Although the inventor's subjective intent is not an issue, the majority recognized that extrinsic evidence might be helpful in claim construction to explain scientific principles, the meaning of technical terms, and the terms of art that appear in the patent and prosecution history. The majority defined extrinsic evidence as evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises. The court recognized that a judge is not usually a person conversant in the particular technical art involved and is not the hypothetical person skilled in the art to whom a patent is addressed. Extrinsic evidence, therefore, may be necessary to inform the court about the language in which the patent is written. This evidence, however, is not for the purpose of clarifying the ambiguity in claim terminology. Extrinsic evidence may not vary or contradict the terms of the claims. The claim construction, enlightened by such extrinsic evidence as may be helpful, is still based on the patent and prosecution history. Nevertheless, expert evidence may demonstrate the state of the prior art at the time of the invention. It is useful to show what was then old, to distinguish what was new, and to aid the court in its claim construction. Thus, the trial court may, in its discretion, receive extrinsic evidence.

146 *Id.*


148 *Markman*, 52 F.3d at 986-87; see also *id.* at 983 (rejecting testimony of Markman and Markman's patent expert as having any controlling effect on the meaning of circumstances). As such, patent claim construction is different from contract, deed or will construction. *Id.* at 984-86.

149 *Id.* at 980.

150 *Id.* at 986.

151 *Id.* at 981 (citations omitted).

152 *Id.* at 980 (citations omitted).

153 *Markman*, 52 F.3d at 980.

154 *Id.* at 980 (citations omitted).
The majority specifically addressed the position raised in Judge Mayer's concurring opinion and Judge Newman's dissent that claim interpretation could involve a question of fact. Judge Mayer suggested that the task of determining the meaning of the claims to one skilled in the art was an issue for the court. If, however, the court could not readily resolve the meaning of the claims, it should examine the extrinsic evidence. The content of the prior art and the testimony of technical experts could reveal how others used and understood technical terms. The inventor, as qualified as an expert, could testify as to what his claims meant in the relevant art. The judge could even consider the testimony of patent lawyers for advice on the interpretation of claims. If this information were uncontested, then the judge could interpret the claim as a matter of law. If, however, the extrinsic evidence resulted in a genuine dispute over the meaning of a term or an event during prosecution, the issue would be one of fact for the finder of fact to determine.

The majority specifically rejected this approach. It rejected the theory that a patent was similar to a contract, whose interpretation, under certain circumstances, would involve triable issues of fact, including the parties' subjective intent. Instead, the majority analogized claim interpretation to statutory construction, which is a matter of law strictly for the court. "A patent is a government grant of rights to the patentee." Thus, in claim construction, the court defines the federal legal rights created by the patent document. Hence, claim construction is analogous to statutory construction. There can be only one correct interpretation of a statute. Statutes, like patents, are enforceable against the public, unlike private agreements between contracting parties. The patentee's subjective intent as to claim

155 Id. at 989 (Mayer, J., concurring), 999, 1000-10 (Newman, J., dissenting). In contrast, in his concurrence, Judge Rader reasoned that the evidentiary record lacked substantial evidence supporting Markman's asserted claim interpretation. Id. at 998. As such, the court's extensive examination of when claim construction could involve subsidiary fact issues was dicta. Id. at 998.
156 As such, if claim construction were indeed an issue of fact, it would be a jury question and not a matter of law. Id. at 989-92.
157 Id. at 991.
158 Id.
159 Id.
160 Markman, 52 F.3d at 985.
161 Id. at 987.
162 Id. at 978.
163 Id. at 987.
CONSISTENT CLAIM CONSTRUCTION

terms is not at issue. Instead, the focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean.\textsuperscript{164}

After finding that claim construction is an issue of law, the majority construed the disputed claim term "inventory."\textsuperscript{165} In doing so, it considered three sources: the claims, the specification and the prosecution history.\textsuperscript{166} It gave no deference to the testimony of Markman and his patent attorney on the proper construction of the claim.\textsuperscript{167}

2. The Supreme Court Opinion. The Markman plaintiffs challenged the Federal Circuit’s opinion in the United States Supreme Court.\textsuperscript{168} There, the question presented was whether the interpretation of a patent claim "is a matter of law reserved entirely for the court, or subject to a Seventh Amendment guarantee that a jury will determine the meaning of any disputed term of art about which expert testimony is offered."\textsuperscript{169} The Supreme Court held that, although patent infringement cases must be tried to a jury,\textsuperscript{170} "the construction of a patent, including terms of art within its claims, is exclusively within the province of the court."\textsuperscript{171}

The decision was based primarily on the “functional considerations” of whether the judge or jury should resolve claim interpretation questions.\textsuperscript{172} The Court concluded that judges, not juries, "are the better suited to find the acquired meaning of patent terms."\textsuperscript{173} The construction of written instruments is something that judges often do and are likely to do better than jurors.\textsuperscript{174}

The Supreme Court did not address the issue of the propriety or role of extrinsic evidence in claim construction. However, the Court’s opinion

\textsuperscript{164} Id. at 986-87. Thus, the Markman trial court did not abuse its discretion when it refused to admit the extrinsic evidence offered by Markman, i.e., Markman’s testimony and the testimony of a patent expert, on the issue of claim construction. The trial court properly rejected this extrinsic evidence to the extent it contradicted the court’s construction of the claims based on the specification and prosecution history. Id. at 981.
\textsuperscript{165} Markman, 52 F.3d at 979-83.
\textsuperscript{166} Id. at 979.
\textsuperscript{167} Id. at 983.
\textsuperscript{169} Id. at 372.
\textsuperscript{170} Id. at 377.
\textsuperscript{171} Id. at 372.
\textsuperscript{172} Id. at 389.
\textsuperscript{173} Markman, 517 U.S. at 388.
\textsuperscript{174} Id. at 388.
assumed that expert testimony would be permitted. The Court specifically framed the issue as whether a judge or jury should "determine the meaning of any disputed term of art about which expert testimony is offered." In addition, the Court recognized that claim construction would involve credibility judgments "about the experts who testify in patent cases." As a practical matter, the Court was "doubtful" that many cases would actually present the situation of competing experts whose testimony was equally consistent with a patent's internal logic. In any event, such credibility determinations would be subsumed within the analysis of the patent document and would be solved by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole. Although the Court did not specifically address the question of whether the appellate standard review of claim construction is de novo, clearly this is the only standard available given that the issue presented is a matter of law.

3. The Federal Circuit and Supreme Court Both Recognized the Need for Certainty. Importantly, in both Markman opinions, the Federal Circuit and the Supreme Court recognized the need for certainty and predictability in claim construction. As the Federal Circuit noted, "it is only fair (and statutorily required) that competitors be able to ascertain to a reasonable degree the scope of the patentee's right to exclude" others from the invention. Indeed, certainty and predictability were reasons to limit the evidence and claim construction issues. Competitors should be able to "rest assured" that if infringement litigation occurs, a judge, trained in the law, will similarly analyze the patent and its associated public record and apply the established rules of construction.

175 Id. at 372.
176 Id. at 389.
177 Id.
178 Markman, 517 U.S. at 389.
179 See id. at 370-90.
180 See Steven Alan Childress & Martha S. Davis, 1 FEDERAL STANDARDS OF REVIEW § 2.14, at 2-79 (3d ed. 1999) (explaining that de novo review applies to issue of "not fact, or enough law that free review is warranted.").
181 Markman, 52 F.3d at 978-79.
182 See id. (The public "may understand what is the scope of the patent owner's rights by obtaining the patent and prosecution history—'the undisputed public record' and applying established rules of construction to the language of the patent claim in the context of the patent.") (citations omitted).
183 Id. at 979.
The Supreme Court also recognized the need for certainty in its decision. The Court specifically cited the importance of uniform treatment as a reason to allocate all issues of construction to the court. 184 "The limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public." 185 Otherwise, a "zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims would discourage invention only a little less than unequivocal foreclosure of the field" 186 and "the public [would] be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights." 187

E. COMMENTATORS CRITICIZE THE FEDERAL CIRCUIT’S CLAIM CONSTRUCTION APPROACH IN MARKMAN

Various commentators and practitioners have discussed and criticized the Federal Circuit’s approach to claim construction issues. 188 The discourse usually focuses on two somewhat related areas: the use of extrinsic evidence in claim construction 189 and the Federal Circuit’s imposition of a de novo

184 Markman, 517 U.S. at 390.
187 Id. (quoting Merrill v. Yeomans, 94 U.S. 568, 573 (1877)).
188 See infra notes 189-191.
standard of review. In addition, practitioners often debate the procedural issues raised by Markman, i.e., when and by what procedure should the trial court interpret the claims.

1. The Role of Extrinsic Evidence. Soon after the Supreme Court's Markman decision, the Federal Circuit again considered the use of extrinsic evidence in claim construction. In Vitronics Corp. v. Conceptronic, Inc., the Federal Circuit delineated the evidence for consideration in a claim construction determination. As Vitronics noted, "the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history." Of the intrinsic evidence, the claim language itself is of first and foremost importance when construing the meaning of the patent. If the claim is unambiguous and clear on its face, the court need not consider the other intrinsic evidence.

In Vitronics, the court held that "[I]n those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper." Because of the public notice function of a patent, claim construction can only be determined by the public record. In addition, if the intrinsic evidence does not solve the claim.
interpretation problem, the court may consider extrinsic evidence to understand the technology and to construe the claims. The trial judge has the discretion to consider extrinsic evidence, including treatises, dictionaries and expert testimony, to better understand the underlying technology at issue.

2. Standard of Review. The Federal Circuit has clearly pronounced the standard of appellate review applicable to claim construction decisions. In its *Markman* decision, the Federal Circuit ruled that claim construction is a matter of law that it reviews *de novo* on appeal. In 1998, the Federal Circuit reaffirmed this principle in the en banc decision of *Cybor Corp. v. FAS Technologies, Inc.* It specifically disavowed any language in previous opinions that suggested or held to the contrary. Since claim construction is a legal question, the Federal Circuit "review[s] claim construction *de novo* on appeal including any allegedly fact-based questions relating to claim construction." Thus, the Federal Circuit has flatly rejected the theory that claim construction involves a mixed question of law and fact. In addition, the court has repeatedly stated that, applying this standard of review, it gives no deference to the trial court. As such, from a procedural perspective, the trial court's claim construction decisions can easily be attacked and overturned at the appellate level.

3. Practical Procedural Issues of *Markman*. The *Markman* decisions created an administration problem for the trial courts. The decisions did not address how or when the trial court must determine the meaning of claims.

established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention. Allowing the public record to be altered or changed by extrinsic evidence introduced at trial, such as expert testimony, would make this right meaningless.

*Id.* at 1583 (citations omitted).

*Id.* at 1584.

*Markman*, 52 F.3d at 979.


*Id.* at 1456.

*Id.*

Although the entire Federal Circuit has twice ruled that claim construction is a matter of law, the members of the Court are clearly not unanimous in this position. See *id.* at 1463-67 (concurring opinion of Chief Judge Mayer, with whom Circuit Judge Pauline Newman joins).


Indeed, the Federal Circuit has held that the procedure and timing of claim construction determinations fall within the trial court’s discretion. As a result, district courts employ a variety of different procedures in dealing with claim construction issues. Some courts decide claim construction in the context of the trial, i.e., before instructing the jury. Some engage in claim interpretation in the context of summary judgment. Some courts issue separate claim construction, or “Markman,” opinions. Many courts require claim construction briefing which may include a Markman hearing. The Northern District of California has specific rules setting forth the procedures for claim construction briefing and a formal hearing. Yet, every district (and often every individual judge) approaches claim construction differently. Many judges continue to experiment with Markman procedures and some express frustration over the procedural difficulties of claim construction after Markman.

**F. PROBLEM: UNDER THE CURRENT LAW, CLAIM CONSTRUCTION IS UNPREDICTABLE AND UNCERTAIN UNTIL THE APPELLATE DECISION**

Regardless of the procedure that the trial judge employs to raise claim construction issues, claim construction disputes are not resolved at the trial level. Instead, on appeal, the Federal Circuit will review the trial court’s
claim construction under a *de novo* standard, and without deference to the trial court. From a practical perspective, this presents a serious problem because the Federal Circuit affirms the trial court's claim interpretation in only approximately forty percent of cases it fully considers. Since the Supreme Court's *Markman* decision on April 23, 1996, the Federal Circuit has reviewed approximately 160 district court claim construction decisions.

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213 *Markman*, 52 F.3d at 979.

interpretation in nearly 65 cases (although the final judgment itself may have been affirmed). Thus, on appeal, the Federal Circuit changes the claim construction in approximately 40% of the cases. Obviously, this situation

offers no certainty or predictability. If the Federal Circuit changes the claim construction in nearly half of the cases, it is not even predictable that the appellate court is likely to change the trial court.

The Federal Circuit's predisposition to change the trial court's claim construction has not been lost on the practitioner. One leading patent law firm specifically markets to corporate counsel based on the unpredictability of the Federal Circuit. Its print ads proclaim that "[i]n Intellectual Property Trials, Winning Isn't Everything... Unless the Appeals Court Says So... The trial is just one battle. The appeals court is where the war will be decided." 218

The cost of such uncertainty is compounded by the requirement that the parties fully litigate the case either through trial or summary judgment before the Federal Circuit considers the claim construction issue. The Federal Circuit has repeatedly refused to consider claim construction issues by interlocutory appeal. 219 Thus, the parties must fully litigate the case in the trial court before the Federal Circuit will even consider the claim construction determination on appeal. Yet on that appeal, there is 40% probability that the court will change the claim construction, either remanding the case to the trial court or, perhaps even, reversing a jury verdict. 220

In short, the goals of certainty and predictability articulated by both the Supreme Court and the Federal Circuit in their Markman decisions 221 clearly

unclear, I have "counted" the Federal Circuit opinion as changing the claim construction if a reversal in the judgment resulted. In addition, some trial court decisions never actually issued a claim construction decision. These cases have been counted as decisions regarding claim construction (if the Federal Circuit actually made a decision on the issue), but they have not been counted by the author as Federal Circuit decisions changing claim construction if the Federal Circuit simply remanded the case for further claim interpretation (instead of offering its own claim construction). Compare Tate Access Floors, Inc. v. Maxcess Techs., Inc., 222 F.3d 958, 55 U.S.P.Q.2d (BNA) 1513 (Fed. Cir. 2000) (making its own claim construction where the trial court failed to do so ("counted" as changed construction)).

218 Corporate Counsel, p. 76 (March 2000).


220 See supra notes 215-17. One of the most unpredictable results on appeal occurred in Exxon Chem. Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 35 U.S.P.Q.2d (BNA) 1801 (Fed. Cir. 1995). There, the Federal Circuit not only changed the trial court's claim construction, but it also reversed a jury verdict of infringement based on Exxon's failure of proof on the newly construed claims.

221 See supra notes 181-87.
are not being met. The patent litigator cannot predict the trial or appellate court's claim construction with any certainty or confidence. The patent litigant cannot fully and accurately assess the strengths and weaknesses of its case.

III. ANALYSIS—WHY DOES UNCERTAINTY AND UNPREDICTABILITY EXIST IN CLAIM CONSTRUCTION

Before proposing a solution to the Markman problem, we need to understand why uncertainty and unpredictability exist in claim construction. As discussed more thoroughly below, the uncertainty arises from a number of different causes. The nature of language itself allows for ambiguity. The commercial importance of a technology often changes between the time of the patent filing, issuance and litigation. Certainly, litigants have significant incentives to dispute claim terms. Most importantly, the basic canons of claim construction undermine the statutory requirements and the public policy goals of clear claiming. Moreover, the canons are nearly impossible to consistently apply. Finally, the Federal Circuit itself has not always articulated or followed a consistent claim construction methodology.

A. CLAIM LANGUAGE IS OFTEN INHERENTLY AMBIGUOUS

Ideally, patent claim language would be so clear and unambiguous that there could be no dispute as to its meaning. This ideal, however, will never be achieved. To some extent, the nature of language and the purpose of patent claims make absolute clarity impossible. An invention exists as a tangible structure or a series of drawings. A verbal portrayal is usually an afterthought written to satisfy the requirements of patent law. The conversion of a machine or invention to words is simply too difficult. Often the invention is novel and words do not exist to describe it.

222 In addition, the purpose of the Federal Circuit itself, to create a uniformity in patent law, appears undermined. H.R. REP. NO. 97-312 at p. 20-23 (1981).
As one court explained in 1868:

Inventors are not usually sufficiently skilled in the art of nice composition, to enable them to accurately draft their own specifications. They must, therefore, resort to others; and it not unfrequently happens that the draftsman employed to describe a particular invention, either through want of skill, or from haste or ignorance of the state of the art, gives, in the specification, a very imperfect description of the thing invented. He sometimes narrows the scope of the inventor's ideas and combinations, and at other times expands them over instruments and devices which are not the product of his original thoughts. He may fail to set forth some feature of the invention which at the time is deemed unimportant, and, which subsequently may be proved to be vital, or at least of great value. 224

In addition to language difficulties, there is an inherent tension in claim drafting. On one hand, the drafter attempts to fashion a claim narrow enough that it is not invalidated by prior art. 225 On the other hand, the patentee wants to obtain a wide scope of patent protection, including the coverage of future devices using the invention, some of which are entirely unknown and unknowable. Indeed, some commentators instruct patent practitioners to draft claims as vaguely as possible. 226 For example, one practical treatise advises that:

The greatest possible effort should be exerted to avoid adopting a position in which the applicant may later be placed in a corner. It is much better technique, when possible, not to pinpoint the essence of patentability to a particular feature and, instead, to attempt to leave a certain

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224 Blake v. Stafford, 3 F. Cas. 610, 612 (C.C.D. Conn. 1868) (No. 1504).
225 If the patent claims covered the prior art, the description of the invention would not meet the novelty requirement. 35 U.S.C. § 102 (1994).
amount of ambiguity or room to maneuver should very pertinent prior art be subsequently unearthed . . . 227

Thus, the patentee and the patent drafter have practical reasons to keep the scope and subject matter of the patent fluid and malleable.

Moreover, as the commercial significance of the technology develops and becomes better known, the important features of the technology may change. At the time the patent was drafted and issued, the inventor and business predicted that one feature of the technology was significant to the market. However, this generally can change or shift as the technology develops commercially. Thus, in an infringement action, the patentee may be trying to protect a technology whose commercial importance was unknown at the time of patent drafting.

As discussed previously, the natural ambiguity of a claim can (and will) be exploited in litigation because claim construction is so critical to the infringement suit.228 Thus, each party has a significant strategic interest in advocating its own claim construction—and a powerful incentive to take advantage of any ambiguity or laxity in claim drafting.

B. THE CLAIM CONSTRUCTION RULES ARE FLAWED

1. The Canons of Claim Construction. In making a claim construction decision, the courts must sort through a variety of legal rules—rules which are often confusing and are inherently flawed. As discussed previously, claim construction is based primarily on the intrinsic evidence—the claim language, the specification, and the prosecution history.229 When construing the meaning and scope of the patent, the court first looks to the claim language.230 If the claim term is unambiguous and clear on its face, the court need not consider any other intrinsic evidence.231 Where the applicability of

227 Id.
228 See supra notes 106-09.
229 See supra notes 192-98 (setting forth the evidence considered in claim construction determinations).
a common meaning is unclear or where more than one common meaning could be assigned to a claim term, the court may refer to the specification and prosecution history to discern the ordinary and accustomed meaning of the term.\(^{232}\)

After examining the intrinsic evidence of the patent, if the meaning of the claim language is still ambiguous, the court may consider extrinsic evidence.\(^{233}\) While extrinsic evidence in general and expert testimony in particular may not be used to vary or contradict the claim language,\(^{234}\) when the intrinsic evidence is insufficient to enable the court to determine the claim meaning, extrinsic evidence "may also properly be relied on to understand the technology and to construe the claims."\(^{235}\) Finally, if after the examination of the intrinsic and extrinsic evidence, the claim term is still ambiguous, the court should adopt the interpretation that affords more narrow coverage of allegedly infringing devices.\(^{236}\)

In addition to following the rules regarding the use of intrinsic and extrinsic evidence, the courts must also give the claim terms their "ordinary and accustomed meaning"\(^{237}\) and should construe the terms from the point of view of the person of ordinary skill in the field of the invention at the time of the invention.\(^{238}\) A court may adopt a definition different from the term's "ordinary and accustomed meaning" in two situations.\(^{239}\) The first arises if the patentee has chosen to be his or her own lexicographer by clearly setting forth an explicit definition for a claim term in the specification.\(^{240}\)


\(^{234}\) *Vitronics*, 90 F.3d at 1584.

\(^{235}\) *Id.; see also Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308-09, 51 U.S.P.Q.2d (BNA) 1161, 1167-68 (Fed. Cir. 1999) (holding that if the patent documents, taken as a whole, are insufficient to enable the court to construe disputed claim terms, extrinsic evidence, such as expert testimony, may be considered). This is different than considering extrinsic evidence to better understand the technology.


\(^{239}\) *Johnson Worldwide Assocs.*, 175 F.3d at 990.

\(^{240}\) *Id.; Renishaw PLC v. Marposs Societa' Per Azioni*, 158 F.3d 1243, 1249, 48 U.S.P.Q.2d (BNA)
CONSISTENT CLAIM CONSTRUCTION

The second is where the claim term or terms chosen by the patentee so deprive the claim of clarity that there is no means by which the scope of the claim may be ascertained from the language used. In these two circumstances, the court should consider intrinsic evidence beyond the claim language itself or in some cases, it may consider extrinsic evidence to determine the scope of the claim language.

2. The Ideological Flaws in the Claim Construction Canons. The claim construction “rules” contain three main ideological flaws which preclude a consistent and predictable approach to claim construction. First, for a court to apply the “ordinary and accustomed meaning” to one skilled in the art, the court must understand what the disputed term meant in the relevant scientific community. This necessarily requires the court to consider extrinsic evidence. A court cannot know the “ordinary and accustomed meaning” of technical terms without consideration of extrinsic evidence. In 1942, the Supreme Court agreed: “[I]t is permissible, and often necessary, to receive expert evidence to ascertain the meaning of a technical or scientific term or term of art so that the court may be aided in understanding... what [the instruments] actually say.” Importantly, this principle extends further than simply educating the judge about the subject of the technology. Instead, the Supreme Court’s instruction contemplates the consideration of extrinsic evidence, including expert testimony, about the meaning to one skilled in the art about specific claim terms. Thus, extrinsic evidence, including expert testimony, about the ordinary meaning of scientific claim terms may be inherently necessary and proper (from the perspective of developing the court’s understanding of scientific terms) for the court’s claim construction analysis.

The search for the ordinary meaning of scientific terms, however, creates an impossible situation for a court. On one hand, the court needs to fully understand the meaning of scientific terms. A “technology tutorial” alone is probably insufficient. In most cases, a lay person, even an experienced

1117, 1121 (Fed. Cir. 1998).

241 Johnson Worldwide Assocs., 175 F.3d at 990.

242 Id.


244 Compare supra note 198 and accompanying text.

245 The author fully recognizes that consideration of such evidence may not be “proper” from the public policy perspective—that the public documents must notify the public of the scope of the invention.
judge, is not able to fully understand the technology and to extrapolate from that knowledge about the ordinary meaning of disputed scientific terms. Yet on the other hand, looking to extrinsic evidence, such as expert testimony, for the ordinary meaning of claim terms defeats the clear claiming requirements and public notice function of the patent documents. Thus, the search for the ordinary meaning of claim terms creates an inherent conflict among the claim construction rules and basic patent principles.

Second, if the claim terms are ambiguous based on the intrinsic evidence, looking outside the patent documents to determine meanings completely undermines the clear claiming requirements of § 112 and the public notice function of the claim. The patent system is based on the premise that the public must understand the scope of the claimed invention. Section 112, ¶ 2 effectuates that policy by requiring the patentee to particularly point out and distinctly claim the subject matter of the invention. The statutory language and history plainly require the patentee, who alone controls the claim language, to sufficiently and clearly claim the invention and to inform the public of the scope of the claim. Looking to extrinsic evidence to correct an ambiguous claim plainly defeats the public notice function of the claim and the patent documents.

Third, if after consideration of intrinsic and extrinsic evidence, the claim terms remain ambiguous, the claim should not be saved by rules of legal construction. The claims must function to notify the public of the scope of the patent. The patentee has the added power to specifically define any uncertain terms. (In any other context, if the critical language were ambiguous, it would be construed against the drafter of the document who alone had the power to clarify the language.) Thus, if after consideration of intrinsic and extrinsic evidence, the claims remain ambiguous or capable

247 See supra notes 37-100 and accompanying text.
248 See supra notes 34-36, 82-100 and accompanying text.
249 See supra note 240 (indicating that a patentee may act as a lexicographer).
250 See 17A Am. Jur. 2d Contracts § 348 (1991). It is fundamental that doubtful language in a contract should be interpreted most strongly against the party that selected the language. In case of doubt or ambiguity, a contract will be construed most strongly against the party who drew it or prepared it or whose attorney drew it or prepared it. As a corollary, a contract drawn by one party must be construed, if its meaning is doubtful, in favor of the nondrafting party. See also Restatement (Second) of Contracts § 206 (1981) ("In choosing among the reasonable meanings of a promise or agreement or a term thereof, that meaning is generally preferred which operates against the party who supplies the words or from whom a writing otherwise proceeds.").
of multiple meanings, the claims do not adequately inform the public of the metes and bounds of the patent. By definition, the claim has failed to meet the requirements of § 112, ¶ 2.

C. THE CANONS DO NOT ARTICULATE, AND THE FEDERAL CIRCUIT DOES NOT FOLLOW, A CONSISTENT CLAIM CONSTRUCTION METHODOLOGY

Judicial attempts to apply the claim construction canons, at both the trial and appellate levels, expose the limitations of such rules. No burden of proof frames the issue and helps the court in its analysis. The canons alone do not sufficiently set forth an exact procedure of analysis that a court must (or should) follow. The canons are simply a set of general rules. They are not a methodology. Although the *Vitronics* court attempted to set forth a methodology of claim construction, it did not offer an approach for determining the ordinary meaning of a term. A sampling of Federal Circuit cases quickly demonstrates that even the Federal Circuit does not follow a consistent claim construction methodology. This confusion presents a real, practical problem for the trial court and for the practitioner who not only needs to advocate as effectively as possible, but who also needs to advise the client on the likely outcome of a *Markman* hearing.

For example, the parties often simultaneously file *Markman* briefs, in which each party advocates proposed claim constructions. What should the judge do when faced with the conflicting definitions? How should the judge analyze the proposed definitions in light of the claim construction canons? Obviously, the court should first look at the claims. But when (and how) should the court determine the ordinary meaning of the claim terms? In some cases, the Federal Circuit specifically determines the plain meaning of the claim terms, although it may derive the term meaning from a number of different sources, including extrinsic evidence. In other cases, the Federal

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252 See supra notes 193-97 and accompanying text.

253 See *Schering Corp. v. Amgen Inc.*, 222 F.3d 1347, 1353, 55 U.S.P.Q.2d (BNA) 1650 (Fed. Cir. 2000) (considering expert testimony about state of the art); *Tate Access Floors, Inc. v. Maxcess Techs., Inc.*, 222 F.3d 958, 965, 55 U.S.P.Q.2d (BNA) 1513 (Fed. Cir. 2000) (citing Webster's New World Dictionary for the ordinary meaning of a disputed term); *Zelinski v. Brunswick Corp.*, 185 F.3d 1311, 1315-16, 51 U.S.P.Q.2d (BNA) 1590 (Fed. Cir. 1999) (increasing the ordinary meaning of "located between," the court concluded that the term was not defined by the claim or the written description. Likewise, the
Circuit simply assumes the “ordinary and accustomed meaning” of disputed terms, without any indication of what that meaning is or how it should be derived.\textsuperscript{254} Sometimes, the court does not even discuss the ordinary and accustomed meaning of terms.\textsuperscript{255}

Another question is when in the claim construction process should the court look to intrinsic evidence other than the claim itself. In \textit{Vitronics}, the Federal Circuit instructed that “it is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning.”\textsuperscript{256} Claims must be read in view of the specification.\textsuperscript{257} “[T]he specification is always highly relevant.”\textsuperscript{258} “Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.”\textsuperscript{259}

The Federal Circuit appears to have taken a somewhat different view of claim language in \textit{Renishaw PLC v. Marposs Societa’ per Azioni}.\textsuperscript{260} There, the court proclaimed that “a claim must explicitly recite a term in need of definition before a definition may enter the claim from the written description.”\textsuperscript{261} “Without any claim term that is susceptible of clarification by the written description, there is no legitimate way to narrow the property right.”\textsuperscript{262} Significantly, in both cases, the court assumed that a trial court somehow can understand and know the ordinary meaning of the disputed claim term solely by reference to the claims.

\textsuperscript{254} See, e.g., \textit{Robotic Vision Sys., Inc. v. View Eng’g, Inc.}, 189 F.3d 1370, 1375, 51 U.S.P.Q.2d (BNA) 1948 (Fed. Cir. 1999) (noting that it was not clear whether the claim was to be read a certain way “even using the ordinary and accustomed meaning of the disputed terms,” yet without comment as to what the “ordinary and accustomed meaning” of the terms was or how it was derived).


\textsuperscript{256} \textit{Vitronics}, 90 F.3d. at 1582.

\textsuperscript{257} Id.

\textsuperscript{258} Id.

\textsuperscript{259} Id.

\textsuperscript{260} 158 F.3d 1243, 48 U.S.P.Q.2d (BNA) 1117 (Fed. Cir. 1998).

\textsuperscript{261} \textit{Renishaw}, 158 F.3d at 1248.
The Federal Circuit's lack of a consistent claim construction methodology becomes most apparent when trying to determine when extrinsic evidence, particularly dictionaries and treatises, may be considered. The Federal Circuit does not appear to consistently follow the rule that extrinsic evidence may only be considered for construction (versus scientific background) issues when the intrinsic evidence is inconclusive. In many cases, the Federal Circuit determines the plain and ordinary meaning of the claim terms by relying on extrinsic evidence, such as dictionaries and even expert testimony. In other cases, the court ignores extrinsic evidence about the ordinary meaning of claim terms.

In sum, not only are the claim construction canons ideologically flawed (and impossible to apply), but also the Federal Circuit does not approach claim construction consistently. Under the circumstances, uncertainty and unpredictability in patent cases will undoubtedly continue.

IV. SOLUTION: A PROPOSED CLAIM CONSTRUCTION METHODOLOGY

If the basic claim construction rules are flawed because they are confusing and even contradictory and if the Federal Circuit does not approach claim

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construction consistently, the trial courts will continue to struggle (unsuccess-
fully) with claim construction issues. The practitioner and the litigant will 
continue to be unable to accurately assess the outcome, at the trial and 
appellate levels, of a critical issue in the patent lawsuit. The Federal Circuit 
will continue to change claims on appeal.

A. PROPOSED CLAIM CONSTRUCTION METHODOLOGY

The author suggests that the courts use the following claim construction 
methodology. As discussed below, the proposed analysis is consistent with 
general claim construction canons and public policy as well as the statutory 
requirements and the basic principles of the Patent Act.

First, the trial court should determine the ordinary meaning of the 
disputed terms. The trial court is trying to understand what one skilled in 
the art understood at the time of the invention. As discussed below, 
because the court's determination of the plain and ordinary meaning of 
the claim term will involve extrinsic evidence and may involve determinations 
of credibility, the trial court's decision on this issue should receive deference 
from the reviewing court. The decision about the ordinary meaning of 
claim terms should be based on the claim language itself and limited extrinsic 
evidence. The court should allow and consider dictionary definitions 
(particularly scientific dictionaries) and treatises at the time of patent 
issuance. This extrinsic evidence should be given great weight. Such 
evidence is the best method of determining the plain meaning of the terms 
at the time of the invention. As objective material created at the time of the 
patent application or issuance, such evidence is highly reliable. In addition, 
while such materials were not actually included in the patent documents, 
they were part of the scientific knowledge at the time the patent issued. As 
such, unless the proffered extrinsic evidence is unreliable for some unique 
reason, evidence of the public scientific knowledge at the time of the patent,

265 Under any analytical framework, the parties need to determine what terms are in dispute and what 
meaning each party advocates. The trial court could help the parties streamline the issue by requiring the 
exchange of claim charts and responsive claim charts before claim construction briefing.

266 See Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1477, 45 U.S.P.Q.2d (BNA) 1429, 
1432 (Fed. Cir. 1998).

267 In Markman, the Supreme Court seemed to consent to the expertise of the trial judge in making 
as set forth in dictionaries and treatises, best represents the meaning to one skilled in the art at the time of the invention.

With respect to expert testimony, courts should routinely allow and even encourage the use of such testimony. However, the role of the expert should be significantly limited. Expert testimony should be offered only to aid in the court's understanding of the subject technology. The court should not allow experts to proffer opinions regarding term meanings. Nevertheless, the trial court's claim construction is more likely to be correct if the court fully understands the subject technology. Trial courts should be further encouraged to allow such testimony.

Once the plain meaning of the disputed term is determined, the court should next determine whether the patentee used the plain and ordinary meaning. This decision requires the court to compare the ordinary meaning of the terms to the claim. The court must presume that the patentee meant to use the ordinary meaning of the disputed terms. This presumption can be easily overcome if the patentee has acted as his own lexicographer. If the intrinsic evidence, in particular the claims and the specification, would not lead one reasonably skilled in the art to ascribe an unaccustomed meaning to the claim, then the court will apply the ordinary and accustomed meaning. If the intrinsic evidence is unclear as to whether the patentee meant to use the ordinary meaning, the terms will be given their ordinary meaning.

If, however, the court concludes, on the basis of the intrinsic evidence, that the patentee did not intend to use the ordinary and plain meaning of the disputed term, then the court must next determine what the patentee meant by the disputed term. The patentee should offer a proposed construction. The court must determine whether the claims, specification and prosecution history support the patentee's alternative construction. If the intrinsic evidence supports the construction, then that interpretation will be adopted. If, however, the intrinsic evidence does not support the patentee's proposed construction, the court may not look to the extrinsic evidence. Instead, the

268 While the author deeply respects the knowledge, expertise and ethics of experts and scientists, the suggestion that experts hired by the parties will agree on the meaning of key terms, even scientific terms, is contrary to the experience of all trial attorneys.


270 See Multiform Desiccants, 133 F.3d at 1477 (recognizing that "the inventor may have imported a special meaning to a term . . . to convey a . . . nuance relevant to the particular invention.").
patent should be declared invalid for its failure to distinctly point out and claim the invention.\textsuperscript{271}

B. ADVANTAGES TO THE PROPOSED METHODOLOGY

Of course, the most obvious advantage to the proposed solution is that it clearly provides a claim construction methodology. To that extent, even if the methodology itself is objectionable, claim construction will at least become predictable. Nevertheless, there are other reasons to adopt the proposed methodology.

The proposed analytical structure better follows the general principle that claim terms be given their ordinary and accustomed meaning. The methodology begins with and rests on this basic principle. If the patentee intended to offer an alternative meaning, it must be clear from the public record. Importantly, the patentee does not lose the ability to act as a lexicographer. Where this has occurred, the patentee simply must put the public (and the scientific community) on clear notice through the public records that the patent terms deviate from the ordinary meanings. The alternative definitions must be clear from the public documents. Thus, under this methodology, the public should have a better understanding of the scope of the patent. Terms are either given their ordinary meaning or an alternative meaning that is clear from the public record.

In addition, the proposed methodology encourages the trial court to better understand the subject technology by requiring consideration of limited extrinsic evidence and by encouraging the consideration of expert testimony.\textsuperscript{272} To properly interpret the claims, the trial court must fully understand the science and technology that is at issue. Indeed, this better understanding is an advantage of a bench trial where a judge can hear all of the witnesses and can make claim construction decisions with significant knowledge about the technology. With the demise of the patent bench trial, trial courts need to improve their understanding of the relevant technology. Claim construction briefing and a short oral argument rarely allow a lay person, nor even a sophisticated judge, to adequately understand the

\textsuperscript{271} The author fully appreciates that this portion of the proposal seems extreme and possibly draconian. The rationale for this position is more fully discussed below.

\textsuperscript{272} It is also important that the trial court receive deference on issues of credibility. The trial court is in a much better position than the appellate court to evaluate expert witnesses.
technology upon which a key case decision rests. This is particularly true with some of the complex technologies that courts face today. In most every case, the trial court should consider expert testimony pertaining to the subject technology. The court’s consideration of differing definitions and scientific treatises should also provide the litigants with a known universe from which they can more easily predict claim construction rulings.

The most controversial aspect of the proposed methodology is the possibility that the patent will be held invalid if the public documents indicate that the patentee intended to deviate from the ordinary meaning, but do not support the patentee’s proffered construction. This proposal, however, is consistent with the history, purpose and language of the patent statute.\textsuperscript{27} If the public documents do not support the patentee’s alternative claim definitions, then the patent was not clearly drafted and did not adequately put the public on notice as to the scope of the claim. The scope of the patent cannot be unknown to the public.

As a practical matter, the possibility of an invalidity finding is extremely remote. The court must first conclude that the patentee intended to use an unusual term meaning. The potential ambiguity of this term is controlled solely by the patentee. The patentee, and not the public, has the ability to make the terms and the patent scope clear. Thus, under the proposed methodology, the patentee has the incentive to clearly define unusual terms in the patent. In addition, the patentee has the ability (and the incentive) not to overreach with the disputed language in the context of an infringement action. Because the potential consequences under the proposed methodology are so dire, even overly zealous advocates will not ask the court to adopt a construction contrary to the public documents. In short, the patentee has more incentive to clearly define terms when deviating from an ordinary term meaning and has the added incentive in litigation to advocate term meanings plainly covered by the public record.

V. CONCLUSION

Given the confusion expressed by the trial courts about claim construction procedures and the extremely high percentage of changes to claim

\textsuperscript{27} In many respects, the proposal is also consistent with an invalidity determination based on indefiniteness. The similarities between an indefiniteness evaluation and claims construction are readily apparent. See, e.g., supra notes 84-100 and accompanying text.
construction language by the Federal Circuit, claim construction is not consistent or predictable at either the trial or the appellate level. Clearly, we have a problem that needs a solution. At a minimum, the consistent use by all courts of a specific claim construction approach will correct the current problems of uncertainty. The specific methodology proposed by the author attempts to return to the basic tenets of patent law. The patent document must notify the public of the boundaries of the claimed invention. Claim terms will be given their ordinary meanings to those skilled in the art of the invention. If the patent, which language is controlled by the patentee, and the public record fail to adequately inform the public of the deviation from the ordinary meaning of terms, the patent has failed to notify the public of its metes and bounds: The inventor has no monopoly and the invention falls into the public domain. The inventor can avoid this result by simply using the ordinary meanings of the terms or by making the use and meanings of extraordinary terms clear from the public documents.