MARKMAN EXPOSED: CONTINUING PROBLEMS WITH *MARKMAN* HEARINGS

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I. INTRODUCTION 196

II. *MARKMAN V. WESTVIEW INSTRUMENTS, INC.* — A BRIEF BACKGROUND 198

III. RIGHT TO A JURY TRIAL — WHO SHOULD INTERPRET CLAIMS AND WHY? JUDGE OR JURY 200

IV. THE USE OF EXTRINSIC EVIDENCE WHEN INTERPRETING CLAIMS 205

V. POSSIBLE ALTERNATIVES TO THE CLAIM INTERPRETATION HOLDINGS IN *MARKMAN* 208
- A. *Elimination of De Novo Appellate Review* 210
- B. *Creation of a Science Court* 211
- C. *Professional Juries* 213
- D. *The Best Alternative* 215

VI. TIMING OF *MARKMAN* HEARINGS 216
- A. *Possible Times During Patent Litigation to Hold* Markman *Hearings* 216
- B. *Northern District of California Patent Local Rules* . . . 218
- C. *Hold Claim Interpretation Hearings Early to Provide More Certainty* 223

VII. CONCLUSION 224

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I. INTRODUCTION

Markman hearings arise from the 1996 U.S. Supreme Court case, *Markman v. Westview Instruments, Inc.*[1] in which the Court determined that claim interpretation is a question of law for the district court judge, rather than a question of fact for the jury, even though the interpretation of patent claims may include the interpretation of some factual material.[2] In the holding, Justice Souter noted that because claim interpretation is a matter of law for a court to decide, there is no violation of the Seventh Amendment right to a trial by jury since the determination of infringement is still in the hands of the jury.[3] In discussing the implication of the holding in *Markman*, Circuit Judge Plager of the Court of Appeals for the Federal Circuit stated that "[a]t the trial stage of a patent infringement suit, this means that the trial judge is obligated to determine the meaning of the claims, and, if a jury is used for the infringement phase, to instruct the jury accordingly."[4]

In order to promote inventive thought, the United States Patent and Trademark Office (PTO) grants an inventor, who discovers a useful and novel invention, a patent right.[5] Article I, Section 8, of the U.S. Constitution empowers Congress "[t]o 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."[6] These patent rights are infringed when someone "without authorization makes, uses, offers to sell, or sells any patented invention, within the United States during the term of the patent therefor."[7] To determine if a patent is being

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1. 517 U.S. 370 (1996).

2. *Id.* at 387.

3. *Id.* at 376.

4. See concurring opinion of Circuit Judge Plager in *Cybor Corp. v. FAS Technology, Inc.,* 138 F.3d 1448, 1463, (Fed. Cir. 1998).

5. 35 U.S.C. § 101.

6. U.S. CONST. art. I, § 8, cl. 8. The copyright and patent rights are derived from this section of the U.S. Constitution. Clearly, the drafters of the U.S. Constitution had the foresight to provide an incentive for persons skilled in science and art to share their inventive and creative thought so that all may benefit therefrom. *Id.*

7. 35 U.S.C. § 271 (2000). For patents having an issue date before June 8, 1995, the patent term is seventeen years from the issue date. For patents filed after June 8, 1995, the patent term is twenty years from the filing date. For patents filed before, but issued after June 8, 1995, the term is the longer of seventeen years from the issue date or twenty years from the filing date. 35 U.S.C. § 154 (2000).

infringed, a patent infringement analysis, which is a two step process, must be conducted.[8]

> First, the asserted claim must be interpreted by the court as a matter of law to determine their meaning and scope. In the second step, the trier of fact determines whether the claims as thus construed read on the accused product. To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly.[9]

The second step is a determination of whether the allegedly infringing device falls within the boundary of protection granted to the patent holder.[10] Simply put, for a patent owner to be successful in a patent infringement suit, at least one claim of the patent must be infringed.

Interpretation of the claims sets forth the boundaries of protection granted by the patent right. A jury cannot determine whether infringement has occurred without proper instructions as to the boundaries of the patent at issue, i.e., a determination of whether the allegedly infringing activity falls within the boundaries of the protection granted by the patent right. "Victory in an infringement suit requires a finding that the patent claim covers the alleged infringer's product or process, which in turn necessitates a determination of 'what the words in the claim mean.'"[11] Accordingly, the interpretation of the claims as read in view of the specification and in some cases in view of extrinsic evidence, (i.e., expert witness testimony, treatises, reference manuals, etc.[12]) is a key factor in patent litigation.

When should the claims be interpreted? Because the U.S. Supreme Court in *Markman* left this question unanswered, this article will focus on possible answers to this question that have lingered since the introduction of *Markman* hearings. Present research indicates that the courts have not ruled as to *when* a *Markman* hearing should be held. Most U.S. District

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8. Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed. Cir. 1995); *Cybor*, 138 F.3d at 1454.

9. *Southwall*, 54 F.3d at 1575; *see also Cybor,* 138 F.3d at 1454 (where the circuit court held that "[a]n infringement analysis involves two steps. First, the court determines the scope and meaning of the patent claims asserted, and then the properly construed claims are compared to the allegedly infringing device.") (quoting *Markman*, 517 U.S. at 371-73 and Read Corp. v. Protec, Inc., 970 F.2d 816, 821).

10. *Cybor*, 138 F.3d at 1454.

11. *Markman,* 517 U.S. at 374.

12. More detail regarding the use of extrinsic evidence in the interpretation of claims follows below. For still further details, see Karl Koster, *Extrinsic Evidence in Patent Claim Interpretation: Understanding Post-Markman Confusion*, 8 J. INTELL. PROP. L. 113 (2000).

Courts do not have a prescription for the timing of *Markman* hearings. Therefore, in most jurisdictions, a *Markman* hearing can be held at any time during the patent litigation (e.g., anytime between the beginning of discovery to just before jury instructions are given by the judge).

This Article will also explore some of the other issues that have been raised since the introduction of *Markman* hearings. For example, whether the use of extrinsic evidence is appropriate when interpreting patent claims, and also the effects of *Markman* hearings on the Seventh Amendment right to a trial by jury. Furthermore, this Article will analyze the advantages and disadvantages of conducting *Markman* hearings at particular times during litigation. This Article will analyze and discuss the Northern District of California Patent Local Rules, which determine the timing of patent infringement suits in that jurisdiction. Finally, this Article will discuss the policy reasons and possible benefits to small individual inventors of holding *Markman* hearings early in the litigation process. A shortened discovery period that provides an early ruling on the interpretation of the claims, and thereby provides early certainty in the patent litigation, is one example of the benefits of an early *Markman* hearing.

II. *MARKMAN V. WESTVIEW INSTRUMENTS, INC.* — A BRIEF BACKGROUND

At the time of the patent infringement suit in *Markman*, Herbert Markman owned a patent directed to "a system that tracks clothing through a dry-cleaning process using a keyboard and data processor to generate transaction records, including a bar code readable by optical detectors."[13] Westview's product "also uses a keyboard and processor and lists dry-cleaning charges on bar-coded tickets that can be read by optical detectors."[14] The jury interpreted the claim language of the Markman patent in such a manner that the Westview product fell within the boundaries of the patent protection granted to Markman.[15] Although the jury found that Westview's product infringed Markman's patent, the district court judge disagreed with the jury interpretation of the claim on the grounds that Westview's product did not "track" inventory as the term was used in the claim language of the Markman patent.[16] Consequently, the

13. *Markman*, 517 U.S. at 370.
14. *Id.*
15. *Id.*
16. *Id.*

District Court ordered a directed verdict in favor of Westview.[17]

Recognizing that patent claim interpretation, and more specifically, the determination of whose responsibility it is to interpret the claims of a patent, the U.S. Supreme Court noted that,

> [t]he question here is whether the interpretation of a so-called patent claim, the portion of the patent document that defines the scope of the patentee's rights, 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. We hold that the construction of a patent, including the terms of art within its claim, is exclusively within the province of the court.[18]

In concluding that Westview's product infringed Markman's patent, the District Court found that the jury did not properly interpret the claim before it and substituted its construction of the disputed claim term.[19] The Federal Circuit affirmed the District Court, and held that the interpretation of the claim language should be left in the hands of the district court judge.[20]

The dispute in *Markman* hinged on the interpretation of the word "inventory" as found in Independent Claim 1 of the Markman patent.[21] Independent Claim 1 of the Markman patent noted "[t]he inventory control and reporting system, comprising . . . a data processor including memory operable to record said information and means to maintain an inventory total. . . ."[22] Under the jury's interpretation of Independent Claim 1, Westview's product infringed the Markman patent.[23] Under the trial court's interpretation of the claims, however, "the production, sale, or use of a tracking system for dry cleaners would not infringe Markman's patent unless the product was capable of tracking articles of clothing throughout the cleaning process and generating reports about their status and location."[24] The District Court found that Westview's system did not

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17. *Id.*
18. *Markman,* 517 U.S. at 372.
19. *Id.* at 376.
20. *Id.*
21. *Id.* at 375.
22. Claim 1 of U.S. Patent No. 4,550,246 — inventory control and reporting system for dry-cleaning stores. *Markman* '246 was filed on Apr. 13, 1984 and issued on Oct. 29, 1985.
23. *Markman*, 517 U.S. at 375.
24. *Id.*

include a means to maintain the inventory total, and therefore, did not fall within the boundary of the Markman patent.[25] *Markman* demonstrated that although a jury has the final say as to whether the patent claim is infringed, a district court judge must first interpret the claim to determine its true limitation.[26]

There has been much difficulty with the U.S. Supreme Court's holding in *Markman*. Although some questions have been raised as to the constitutionality of *Markman*, such as the Seventh Amendment right to a jury trial,[27] even more questions have been raised concerning the timing of *Markman* hearings. The U.S. Supreme Court's ruling in *Markman* set forth the requirement that a proper patent infringement analysis must include a claim interpretation hearing, and that claim interpretation is a question of law for a court, not a question of fact for a jury.[28] The ruling, however, did not address any procedural aspects regarding the newly required claim interpretation hearing, such as a particular time when the claim interpretation hearing should be held. Since the U.S. Supreme Court provided no guidelines as to the timing of the claim interpretation hearing, district court judges are free to use their discretion as to when the hearings should be held. This leads to inconsistency throughout the district courts as to the timing of a *Markman* hearing, which not only varies from jurisdiction to jurisdiction, but may also vary from judge to judge within the same jurisdiction. The inconsistency at the district court level leads to varying procedures in patent litigation such as disparate amounts of time allowed for discovery. Furthermore, in cases where the cost of litigation is high due to lengthy discovery periods, there is less incentive for the parties to settle the matter since they have already spent so much money during the discovery stage.

III. RIGHT TO A JURY TRIAL — WHO SHOULD INTERPRET CLAIMS AND WHY? JUDGE OR JURY?

One of the issues confronted by the *Markman* Court was whether a patent holder's Seventh Amendment right to a trial by jury is violated when the patent's claims are interpreted by a district court judge rather

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25. *Id.*

26. *Id.* at 372.

27. For a detailed discussion as to the constitutionality of *Markman* hearings, see Joseph A. Miron, Jr., *The Constitutionality of a Complexity Exception to the Seventh Amendment*, 73 CHI.-KENT L. REV. 865 (1998).

28. *Markman*, 517 U.S. at 374.

than a jury.[29] Is the patent holder deprived of the right to a trial by jury when the district court judge interprets the patent claim? The U.S. Supreme Court in *Markman* answered this question in the negative. This section provides a brief discussion on the policy behind allowing the district court judge to interpret patent claims.

The Seventh Amendment to the U.S. Constitution guarantees a right to a trial by jury.[30] Consequently, the question arose in *Markman* as to whether or not the act of removing the responsibility of claim interpretation from the jury and making it a question of law for the district court judge was a violation of Herbert Markman's Seventh Amendment right to a trial by jury.[31]

The ongoing question of whether claim interpretation is a question of fact for a jury or a question of law for a court was finally put to rest by the U.S. Supreme Court in *Markman*.[32] The U.S. Constitution provides that

> [i]n suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.[33]

Clearly, the value in controversy in a patent infringement case will normally exceed the twenty dollar requirement that our forefathers provided in the U.S. Constitution and therefore, the Seventh Amendment right to a jury trial is applicable in patent infringement and patent validity suits.

In the case of *United States v. Wonson,*[34] the circuit court stated that the right to a trial by jury is a right which existed under the English common law, "the grand reservoir of all our jurisprudence."[35] The circuit court in

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29. *Id.* at 372.
30. U.S. CONST. amend. VII.
31. *Markman*, 517 U.S. at 372.
32. *Id.*
33. U.S. CONST. amend. VII.
34. 28 F. Cas. 745, 750 (Mass. 1812).
35. The *Wonson* Court further noted that

> [a]t the time when the constitution was submitted to the people for adoption, one of the most powerful objections urged against it was, that in civil causes it did not secure the trial of facts by a jury. And that the appellate jurisdiction of the supreme court, both as to law and fact, would enable that court, with or without a new jury, to re-examine the whole facts, which had been settled by a previous

Wonson discussed appellate jurisdiction in regard to questions of fact that have been determined by a jury and noted that appellate level courts are only to examine errors of law.[36] More specifically, the *Wonson* Court stated that "according to the rules of the common law the facts once tried by a jury are never re-examined, unless a new trial is granted in the discretion of the court, before which the suit is depending, for good cause shown."[37] Accordingly, a pre-*Markman* claim interpretation, i.e. claim interpreted by the jury, would not be subject to appeal. As has sometimes been the case in the past, there have been times when juries have misconstrued facts (claim interpretation or otherwise). It is, of course, foreseeable that a jury might struggle with the task of interpreting claims when complicated technology is involved. Therefore, in the pre-*Markman* days, claim interpretations by juries were far more likely to be inconsistent from case to case. For example, a jury may interpret a claim element one way, and another jury, in a different case, may interpret the same claim element in a much different way. This high degree of inconsistency, coupled with the non-appealability of a *pre-Markman* claim interpretation created a dangerous situation for both a patent holder and a patent challenger — both of whom are sure to have exerted a great deal of resources on the litigation before even arriving at trial. This situation was remedied when the *Markman* Court determined that claim interpretation is a matter of law for a court, rather than a fact for a jury.[38] According to the test set forth in *Wonson*, the interpretation can be re-examined at the appellate level.[39] Therefore, by making claim interpretation a question of law for a court, the *Markman* Court made claim interpretation re-examinable at the appellate level.[40]

As the U.S. Supreme Court in *Markman* noted, "there is no dispute that infringement cases today must be tried to a jury, as their predecessors were more than two centuries ago."[41] Clearly, a patent infringement case is a matter that must be heard before a jury. One issue left for determination by the Court in *Markman*, however, was whether all portions of the trial, more

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jury.

Id. See also dissenting opinion of Justice Scalia in *Gasperini v. Center for Humanities*, 518 U.S. 415, 116 S. Ct. 2211, 2231 (1996) "[a]t common law, review of judgments was had only on writ of error, limited to questions of law."

36. *Wonson*, 28 F. Cas. at 749.
37. *Id.* at 750.
38. Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996).
39. *Wonson*, 28 F. Cas. at 749.
40. *Markman*, 517 U.S. at 372.
41. *Id.* at 377.

particularly claim interpretation, must also be heard before a jury. More specifically, the Court in *Markman* phrased the question as "whether a particular issue occurring within a jury trial (here the construction of a patent claim) is itself necessarily a jury issue, the guarantee being essential to preserve the right to a jury's resolution of the ultimate dispute."[42] The true answer to this question resides in the analysis of whether Herbert Markman's fundamental Seventh Amendment right was violated when the particular issue of claim interpretation was not brought before the jury. It is imperative to note that the *Markman* Court was not eliminating the right to a trial by jury.[43] The U.S. Supreme Court was only removing the issue of claim interpretation from the jury's consideration.[44] In a patent infringement case, the question of whether or not there exists infringement of the patent still resides with the jury.[45]

The *Markman* Court relied in part on the holding in the case of *In re Peterson*[46] to note that the requirement that claim interpretation be heard by a court instead of a jury is not a violation of Herbert Markman's Seventh Amendment right.[47] The U.S. Supreme Court in *Peterson* held that "the requirement of a preliminary hearing [does not] infringe the constitutional right, either because it involves delay in reaching the jury trial, or because it affords opportunity for exploring in advance the evidence which the adversary purposes to introduce before the jury."[48] Additionally, the *Peterson* Court noted that the requirement of a preliminary hearing before an auditor was not an obstruction of the right to a jury trial.[49]

More recently, the question has arisen as to whether or not the holdings in *Markman* should be applied to other intellectual property cases. For example, in the case of *Samara Brothers, Inc. v. Wal-Mart, Inc.*,[50] the issue arose as to whether the circuit court or the jury should decide the

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42. *Id.*

43. *Id.*

44. *Id.* at 377.

45. *Markman*, 517 U.S. at 377.

46. 253 U.S. 300 (1920). This case dealt with the sale and delivery of coal. The plaintiff sued for a payment of approximately $21,000. In the defendant's answer, it was claimed that some of the money had been paid. Hoping to simplify the issues for the jury, the trial judge granted the defendant's motion, despite plaintiff's objection, and appointed an auditor to investigate the facts, hear witnesses, examine accounts, and present them in court.

47. *Markman*, 517 U.S. at 378.

48. *Peterson*, 253 U.S. at 310 (quoting Capital Traction Co. v. Hof, 174 U.S. 1 (1899)).

49. *Id.* at 310.

50. 165 F.3d 120 (2nd Cir. 1998).

protectability of a claimant's trade dress.[51] Wal-Mart relied on *Markman* for the proposition that the question of whether trade dress is protected should be left to a court, not a jury.[52] The *Samara* Court, however, summarily rejected this argument:

> Without asking the Court to take the trade dress issue away from the jury, Wal-Mart seeks application by this court of a lower level of deference for the jury's verdict in light of the so-called "trend" created by *Markman*. We find no such "trend" reflected in the case law nor do we find any law to support enforcement of a more rigorous review of a jury verdict in a trade dress case. . . . There is no language in *Markman* which would extend its holding to non-patent cases.[53]

The *Samara* Court reemphasized the Court of Appeals for the Federal Circuit by noting that only interpretation of the claims, not the determination of whether there is actual infringement, is made a question of law for a court.[54] In a trade dress infringement case, if the question of protectability of the trade dress is made a question of law for a court, then is there even a need for a jury? If a court determines that the trade dress is not protectable, then it seems as though the inquiry of trade dress infringement is over. If, however, a court determines that the trade dress is protectable, then it will be up to a jury to determine whether or not the protectable trade dress was infringed. In a patent infringement case, however, regardless of the outcome of the interpretation of the claims, a genuine issue still remains for the jury to decide after the district court judge interprets the claims.

In *Samara*, the Second Circuit noted that "[o]ur system relies on juries to perform these tasks [the determination of protectability of trade dress] even when the factual issues are challenging and subtle."[55] The question that has arisen, therefore, is that if the Second Circuit recognizes the ability of its jurors to determine complex issues, why then does the Court of Appeals for the Federal Circuit not recognize the ability of jurors to

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51. *Id.* at 123.

52. *Id.* at 124.

53. *Id.* The *Samara* Court also noted that a trade dress or trademark infringement case is quite different from a patent infringement case because no documents exist that must be interpreted. The *Samara* Court further noted "[w]e have no reason, in our view, to lack confidence in the ability of a jury, when presented with a trade dress claim, to consider thoughtfully the evidence presented and to evaluate that evidence under the standards charged by the district court." *Id.*

54. *Id.*

55. *Samara*, 165 F.3d at 124 (emphasis added).

determine the proper interpretation of claims in a patent infringement case?

The U.S. Supreme Court in *Markman* made it clear that the Seventh Amendment right to a trial by jury is not violated when the claims of a patent are interpreted by the judge instead of the jury.[56] The Court found that district court judges are better suited to interpret the sometimes complex language of patent claims.[57] There can be no question that judges, rather than juries, are better versed on the subject of law. The question that begs to be asked, however, is what superior qualifications in any particular art does a district court judge have over a jury to understand complex and sometimes convoluted claim language? The *Markman* Court noted that more certainty and uniformity will arise in patent infringement cases when claims are interpreted by judges instead of juries, but gave no real explanation behind this reasoning.[58] It therefore appears that the ultimate goal in shifting the burden of claim interpretation from a jury to a court is to make rulings on claim interpretation issues more uniform. Has the U.S. Supreme Court achieved its goal? The vast number of claim interpretations that are overturned by the Federal Circuit reveals that the U.S. Supreme Court's goal in *Markman*, unfortunately, has not yet been fully achieved.

IV. THE USE OF EXTRINSIC EVIDENCE WHEN INTERPRETING CLAIMS

When interpreting patent claims, a court may look to many different sources of evidence. "In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence."[59] As

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56. Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996).

57. *See id.* at 390-91.

> It was just for the sake of such desirable uniformity that Congress created the Court of Appeals for the Federal Circuit as an exclusive appellate court for patent cases, observing that increased uniformity would strengthen the United States patent system in such a way as to foster technological growth and industrial innovation. Uniformity would, however, be ill served by submitting issues of document construction to juries.

The Court went on to note that "treating interpretive issues as purely legal will promote (though not guarantee) intrajurisdictional certainty through the application of stare decisis on those questions not yet subject to interjudicial uniformity under the authority of the single appeals court." *Id.* at 391.

58. *Id.* at 391.

59. Vitronics Corp. v. Conceptronid, Inc., 90 F.3d 1576, 1583 (Fed. Cir. 1996). *See also* Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1216 (Fed. Cir. 1995) "In construing the claims

noted in the above mentioned cases, it is very common for a court to interpret the claims of a patent using only intrinsic evidence (i.e., the claims, the specifications, and the drawings).[60] Prosecution history of the patent may also be considered another source of information when interpreting claims. Prosecution history may include the actions which occurred during the pendency of a patent application. For example, communications from the PTO in the form of Office Actions, and an Applicant's response to an Office Action may be considered prosecution history. Only in circumstances where the meaning of the claim cannot be interpreted from the intrinsic evidence alone should extrinsic evidence, such as expert testimony, be used.[61] However, intrinsic evidence is the best evidence for interpreting a claim.[62] Extrinsic evidence should only be used to clarify terms in a claim, not to give the terms a meaning that is contrary to the specifications. In Karl Koster's *Extrinsic Evidence in Patent Claim Interpretation: Understanding Post-Markman Confusion*,[63] Koster notes that "the court is likely to affirm the Judge's discretion in considering extrinsic evidence as long as it is not relied upon to controvert a plain interpretation derived from the intrinsic evidence."[64]

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we look to the language of the claims, the specification, and the prosecution history. Extrinsic evidence may also be considered, if needed to assist in determining the meaning or scope of technical terms in the claims."

60. *See* Harmone Research Found., Inc. v. Genentech Dev. Corp., 904 F.2d 1558, 1562 (Fed. Cir. 1990). "Claim interpretation involves a review of the specification, prosecution history, claims (including unasserted as well as asserted claims), and, if necessary, other extrinsic evidence, such as expert testimony."

61. *Vitronics*, 90 F.3d at 1583.

62.

> Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history. "A technical term used in a patent document is interpreted as having the meaning that it would be given by persons experienced in the field of the invention, unless it is apparent from the patent and the prosecution history that the inventor used the term with a different meaning." Thus, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.

Vitronics, 90 F.3d at 1582 (citations omitted).

63. Koster, *supra* note 12, at 139.

64. *Id.* at 139. Koster goes on to conclude that "[i]f the claim can be clearly defined using intrinsic evidence alone, then extrinsic evidence may serve as a touchstone to validate the interpretation, but relying on extrinsic to justify an interpretation contradicting intrinsic evidence will not be sustained." *Id.* at 139.

When drafted in a thorough manner, the definition of claim terms should generally be found within the patent specification. Generally, the patent holder will benefit from a patent that is drafted in such a way that any claim term can be defined using intrinsic evidence. More particularly, when the patent is drafted in a way that a claim term cannot be interpreted using only intrinsic evidence, the patent holder runs the risk of third parties interjecting their interpretations into those claim terms. For example, the patent challenger can interject a different interpretation through extrinsic evidence such as expert witness testimony, testimony by the inventor, and definitions taken from reference manuals. Consequently, the burden rests on the patent holder to draft the patent in such a way that there is no question as to the definition of the claim terms.

It cannot be denied, however, that at times a patent may be drafted in such a way that intrinsic evidence alone is not sufficient for a district court judge to interpret the claims. As previously mentioned, only at a time when the intrinsic evidence alone cannot sufficiently be used to interpret the claims can a district court judge use extrinsic evidence to assist in the interpretation.[65] The issue then arises as to the collection of the extrinsic evidence.

In an article by Associate Professor Eugene R. Quinn, Jr. discussing the advantages of using alternative dispute resolution in patent infringement cases, a respondent to Professor Quinn's survey recognized that the cost of patent litigation can be quite high.[66] Moreover, in most cases the cost of arbitrating a patent dispute is usually less than eighty-five percent of the cost of litigating the same dispute.[67] The high costs generally include travel expenses and expert witness fees. During the discovery stage of the trial, several expert witnesses are deposed. This testimony is taken in an attempt

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> Extrinsic evidence is anything outside of the patent and its prosecution history, to include expert and inventor testimony, dictionaries, and learned treatises, and can also be used to help explain scientific principles and to demonstrate the prior art at the time of the invention. Again, however, extrinsic evidence is to be used for the court's understanding of the patent, not for the purpose of varying or contradicting other terms of the claims.

Quigley Corp. v. Gumtech, Inc., 2000 WL 264140 (Pa. ed. 2000) (citing Markman v. Westview Instruments, Inc., 517 U.S. 370, 380-81 (1996)).

66. *See* Eugene R. Quinn, Jr., *Using Alternative Dispute Resolution to Resolve Patent Litigation: A Survey of Patent Litigators,* 3 MARQ. INTELL. PROP. L. REV. 77, 95 (1999).

67. *Id.* The commentators that responded to Associate Professor Quinn's survey further stated that "[w]ith good case management and an experienced arbitrator, the costs should fall to less than half of those incurred in litigation." *Id.* at 95.

to provide the judge with as much extrinsic evidence to interpret the claims in the event extrinsic evidence becomes necessary. Obviously, the amount of extrinsic evidence that can be collected during a patent infringement suit is directly proportional to the amount of time provided by the district court judge for discovery. Logically, a district court judge should generally end discovery directed to defining claim terms in advance of the *Markman* hearing. For the reasons set forth below, it seems that patent litigations would be less expensive and more time efficient for all parties if the district court judge were to set the time of the *Markman* hearing early in the trial process.

The above discussion regarding the collection of extrinsic evidence clearly shifts many burdens to the patent holder, and more particularly, to the patent drafter. The patent drafter must cautiously draft the patent in a way that all the terms are clear and unambiguous, or risk the danger of a third party defining claim terms using extrinsic evidence. In a sense, the drafting of a patent can be equated to the drafting of a contract. Similar to a contract, it is preferable that all of the terms used in the claims of a patent be sufficiently defined within the "four corners" of the patent specification to thereby allow the district court judge to interpret the terms using only intrinsic evidence.[68] The patent holder acts as his own lexicographer, and therefore, has every opportunity to thoroughly define all of the claimed terms in the patent specification.[69] Patent drafters, therefore, should always think ahead when drafting a patent in order to avoid the wasteful expenditure of time, money, and other resources necessary to defend a patent later. A thoroughly drafted patent will assist the patent holder in defending the rights granted by the patent.

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68. "[W]hen a contract can be construed from the four corners of the instrument without looking to extrinsic evidence, the question of contractual interpretation is answered as a matter of law and summary judgment is appropriate." U.S. Test, Inc. v. NDE Envtl. Corp., 196 F.3d 1376, 1379 (Fed. Cir. 1999) (citing Peterson v. Schimek, 729 So. 2d 1024, 1029 (La. 1999)).

69.

> Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.

Vitronics Corp. v. Conceptronid, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

V. POSSIBLE ALTERNATIVES TO THE CLAIM INTERPRETATION HOLDINGS IN *MARKMAN*

As discussed above, claims are interpreted as a question of law, and therefore, claim construction is subject to de novo review and appellate revision.[70] Before the decision in *Markman*, an interpretation of a claim by a jury was left undisturbed since it was a question of fact.[71] Although the *Markman* Court titles claim construction as a "purely legal question,"[72] the Court is also careful to note that the "purely legal question" of claim interpretation does include some findings of "fact-based"[73] questions. In his dissenting opinion in *Cybor Corp. v. FAS Technology, Inc.*, Circuit Judge Rader noted that the U.S. Supreme Court in *Markman II*,[74] and the Federal Circuit in *Markman I*,[75] evaded the Seventh Amendment issue by reasoning that claim construction is a matter of law.[76] Judge Rader went on to note that "the court concerned itself with the jury involvement issue and did not address appellate review of claim construction."[77]

In his dissenting opinion in *Cybor,* Judge Rader further noted that the plenary standard of review has produced a reversal of almost forty percent of all claim constructions since *Markman I*.[78] Therefore, patent litigators

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70. *See supra* text accompanying notes 34-40.

71.

> [W]e therefore reaffirm that, as a purely legal question, we review claim construction de novo on appeal including any allegedly fact-based questions relating to claim construction. Accordingly, we today disavow any language in previous opinions of this court that holds, purports to hold, states, or suggests anything to the contrary.

See Cybor Corp. v. FAS Tech., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998).

72. Markman v. Westview Instruments, Inc. 517 U.S. 370, 372 (1996).

73. *Id.*

74. For the purposes of this Article the U.S. Supreme Court decision in *Markman v. Westview Instruments, Inc.* may be referred to as *Markman II.*

75. For the purposes of this Article, the District Court decision in *Markman v. Westview Instruments, Inc.* may be referred to as *Markman I.*

76. *Cybor*, 138 F.3d at 1473.

77. *See id*. Judge Rader further notes that

> [t]o get a certain claim interpretation, parties must go past the district court's *Markman I* [52 F.3d 979, 34 U.S.P.Q. 2d 1329 (Fed. Cir. 1995)] proceeding, past the entirety of discovery, past the entire trial on the merits, past post trial motions, past briefing and argument to the Federal Circuit — indeed past every step in the entire course of federal litigation, except Supreme Court review.

Id. at 1476 (Rader, dissenting).

78. *Id.* at 1476.

are more than likely to find themselves balancing the interests of their clients. For example, patent litigators must decide whether it is worth dragging their clients through the expense involved with a trial when there is a forty percent chance that the claim interpretation, on which the entire trial generally relies, may be overturned by the Court of Appeals for the Federal Circuit. Another question that patent litigators should ask themselves is whether there should exist an alternative to the *Markman* requirement that claim interpretation be a matter of law for a district court judge. If the district court judge's interpretation of a patent claim has a forty percent chance of being overturned by the Court of Appeals for the Federal Circuit, then is there another possible alternative to claim interpretation by a court?

A. *Elimination of De Novo Appellate Review*

One possible alternative to the *Markman* holding is not to disturb the *Markman* ruling in whole, but to eliminate the de novo appellate review. Claim interpretation could be left within the discretion of the district court judge, without allowing a review of the ruling de novo. Under this alternative, the district court judge's interpretation of the claim would only be disturbed if it is determined that the district court abused its discretion. "A district court abuses its discretion when its decision is based on clearly erroneous findings of fact, is based on erroneous interpretations of the law, or is clearly unreasonable, arbitrary or fanciful."[79] The reasoning behind this alternative is that although the *Markman* Court ruled that claim interpretation is a question of law,[80] the district court judge's interpretation of claims is primarily based on an interpretation of the facts presented to the district court judge during the *Markman* hearing.[81] Indeed, it may be advantageous to the patent system to eliminate de novo appellate review. This alternative would likely decrease the number of claim interpretations that are overturned by the Federal Circuit. The appellate court would no longer review the claim interpretation of the district court judge de novo and, more particularly, the appellate court would only review the district court judge's decision based on clearly erroneous findings of fact.

The problem that arises with this alternative, however, is that by eliminating de novo review, and allowing the Court of Appeals for the

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79. *Id.* at 1460.

80. Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996).

81. "After *Markman*, a trial judge must determine as questions of law the meaning of patent claims. The meaning of claim terms is the central issue of patent litigation." Loral Fairchild Corp. v. Victor Co. of Japan, 911 F. Supp. 76, 79 (1995).

Federal Circuit to disturb the district court's ruling only on a clearly erroneous standard, the claim interpretation hearing becomes a pure issue of fact. If the claim interpretation hearing is deemed a question of fact, however, then there is no choice except to submit the question to a jury. In cases where a court circumvents a jury on pure issues of fact, a court is likely to find that the Seventh Amendment right to a trial by jury is violated.[82] As explained above, the very reason why the U.S. Supreme Court in *Markman II* determined that claim interpretation is a matter of law was to avoid (or "evade" as put by Judge Rader in *Cybor*[83]) the issues of a jury trial that arise under the Seventh Amendment.[84] This violation of the Seventh Amendment right makes the elimination of de novo appellate review an unsound and unfeasible alternative to claim interpretation by a court.

B. *Creation of a Science Court*

Another alternative to the current rule under *Markman II* is the creation of a science court that includes a jury having members that are technically inclined, and a judge that has once practiced patent law. This court would include a jury of people having scientific or technological backgrounds who could travel around the country trying patent cases in various jurisdictions. Interviews with patent litigators and scholars, however, indicate that this alternative is likely to be frowned upon. In all fields of litigation, both complex and simple, the burden of informing and educating both a jury and a court of the issues and facts of a case falls on the attorneys. Even in complex patent litigation, it becomes the duty of the attorneys to break down complex technologies for a jury of lay people and a district court judge, who may be knowledgeable of the law, but may lack the scientific knowledge necessary to truly understand the technology of the claims in question. Is it proper to shift the burden of explaining the technology of a particular patent from an attorney to a jury with a scientific background? Probably not. Some patent litigators and members of the judiciary agree that to remove the burden of explaining the technology associated with the patent at issue from the hands of the attorney is not only improper, but also dangerous.[85] Where is the sense in requiring attorneys to make arguments, when a court is relying on the scientific

82. *Markman*, 517 U.S. 370.

83. *See supra* text accompanying note 62.

84. *See* Judge Rader's dissenting opinion in *Cybor*, 138 F.3d at 1473.

85. Information gathered from judges and patent litigators during interviews while conducting research for this Article.

backgrounds of those persons on the professional jury to make a judgement? There exists no realistic justification for allowing this situation to occur. In an arrangement such as this, a jury stacked with scientific experts is likely to interpret the claims based on their own knowledge, rather than on the information disclosed in the patent or the arguments made by the attorneys.

Another problem with this alternative is the practicality of empaneling a jury with the requisite scientific or technological background in a day and age when patents are granted in such broad ranges of technology. Is there any advantage to a specialized patent jury comprised of mechanical and electrical engineers, for example, when the patent at issue is a biotechnical patent or a method of doing business patent? This would be a patent infringement case better suited for biotechnologists or business persons, respectively. Furthermore, technologies greatly vary within broad areas. For example, within the field of civil engineering there are disciplines of steel bridge and structure design, roadway design, soil mechanics, water resource management, land erosion, hydrology, and foundation design, just to name a few. It could be quite difficult to find persons suited to sit on the science court that, regardless of their knowledge in a broad technological area, could competently make decisions in such specialized fields.

It is also not realistically possible to empanel a different scientific or technological jury based on the technology of the patent in question for every patent case that goes to trial. The courts have enough problems in trying to obtain sufficient members of the local community to perform their civic duty by participating in jury duty. It would place an undue burden on the courts to attempt to empanel juries with people that are educated or experienced in particular fields of technology or science. Empaneling these specialized juries as a mechanism to decrease the responsibility currently shouldered by the attorneys such as explaining the true issues of the patent infringement suit and the details of the patent would be an undue hardship on the courts. Therefore, it is clear that the formation of the science court is not a feasible alternative, and attorneys must still shoulder the burden of thoroughly explaining the technology of certain patents to the jury and court.

Still another problem with this alternative is one of human nature. Although the persons involved with the science court would all be generally knowledgeable with respect to the particular technologies involved with the patent at issue, they will most likely have varying opinions. This is quite evident when observing or participating in patent litigation where expert witnesses are used. For example, the plaintiff in a particular case will likely present an expert witness that is qualified in a particular field to testify in a manner that is beneficial to the plaintiff.

Similarly, the defendant in the same case will likely present another expert that is just as qualified as the plaintiff's expert, but who will provide an opinion that is contrary to the expert witness presented by the plaintiff. In such situations, the determinative factor is generally the credibility of each witness. This is usually judged by the character and qualifications of each expert, often based on education and years of practice in the field. Now, imagine that the jury box is filled with persons that rise to the level of expert witnesses![86] Clearly, every member of the jury will not be an expert on the particular technology presented, but there is a chance that the jury members will have varying opinions that fall on either side of the spectrum. This, however, is not a unique problem because in any jury, regardless of whether the jury is assembled in a science court or not, jurors may have varying opinions. A problem may arise, however, when the jurors' opinions are clearly contrary to the evidence presented during the trial and those jurors act on their contrary opinions. For example, the jurors of the science court may have opinions that vary greatly from those of the experts that are presented at trial. These experts in the science court may make decisions based on their own knowledge, instead of based on the evidence presented at trial.

C. *Professional Juries*

Still another alternative to the current *Markman II* requirement of having a judge construe claims as a matter of law, is the use of a professional jury that is empaneled solely for the purpose of interpreting claims.[87] The professional jury can, for example, include persons who are well versed in the intricacies of patent law, or, like those persons sitting on the science court, have strong technological backgrounds.[88] One advantage

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86. See dissenting opinion of Circuit Judge Rader in *Cybor*, 138 F.3d at 1475 noting "[m]oreover, by assigning claim interpretation to the judge, *Markman II* has already corrected the major source of the problem with experts, namely their ability to influence lay jurors with the strength of their resumes rather than the strength of their reasoning."

87. *See* Davin M. Stockwell, *A Jury of One's (Technically Competent) Peers?*, 21 WHITTIER L. REV. 645 (2000). Although Mr. Stockwell's article is very persuasive as to the many advantages of empaneling professional juries in patent litigation matters, he does point out one of the major problems that will likely stand in the way of empaneling a professional jury: "[t]he final obstacle regarding the implementation of a system of qualified jurors in patent litigation involves actually persuading individuals who possess 'training in scientific and technical matters' to participate." *Id.* at 693. For further discussion on professional juries, see Kristy Lee Bertelsen, *From Specialized Courts to Specialized Juries: Calling for Professional Juries in Complex Civil Litigation*, 3 SUFFOLK J. TRIAL & APP. ADVOC. 1 (1998).

88. The disadvantages of empaneling a jury made up of only persons having strong technological backgrounds has been previously discussed above. *See infra* Part V.B.

of this alternative is directly linked to one of the previously mentioned alternatives: the elimination of the de novo appellate review.[89] An advantage of empaneling a professional jury is the elimination of questions regarding the Seventh Amendment right to a jury trial.[90] Although the decision in *Markman II* put this issue to rest by holding that the Seventh Amendment right to a trial by jury is not infringed by allowing a district court judge to interpret patent claims, it is quite evident that the argument will no longer be made.[91]

There are some pitfalls, however, that are encountered with this alternative. For example, the economic feasibility of a professional jury must be studied. Empaneling a professional jury depends largely on the interest and cooperation of persons in the community who are technically inclined. Although the argument can always be made that jury duty is a civic duty that everyone should fulfill when called, it cannot be ignored that technically inclined persons, such as engineers, scientists, doctors, economists, computer specialists, etc., are under time constraints such as project deadlines, and are generally well compensated. As noted in Stockwell's *A Jury of One's (Technically Competent) Peers?*, one alternative is to monetarily entice people with technical knowledge to sit on the jury.[92] Although this appears to be a solution to one of the problems associated with finding technically inclined persons to sit on professional juries, it again raises the issue of economic feasibility. Stockwell does not set forth a proposal as to who would pay the competitive wages to the members of the professional jury. Is this a cost that will be passed on to the taxpayers or to the parties in the patent litigation? If it is a cost that is to be passed on to the parties in the patent litigation, then the proverbial can of worms related to the high costs of patent litigation is again opened.[93] The cost of the professional jury only adds to the already high cost of patent litigation. The high costs of patent litigation may make it difficult, and sometimes impossible, for small or individual inventors to enforce their patents, as they are not likely to be as well funded as large corporations. How is this system supposed to promote the progress of science and the useful arts?

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89. *See infra* Part V.A. (for discussion on elimination of de novo appellate review).

90. *See infra* Part III (detailed discussion of the Seventh Amendment right to a trial by jury).

91. Markman v. Westview Instruments, Inc., 517 U.S. 370, 377 (1996).

92. "Similarly, under the professional jury system, [a] qualified candidate will be more likely to volunteer for service if the government offers a competitive wage." Stockwell, *supra* note 87, at 693.

93. *See infra* Part II.

Another problem is that generally we only ask juries to make a simple determination of guilt and/or liability, for example. In this case we would be asking a jury to interpret and determine the meaning of various terms found in the claims of a patent. Would the foreman be responsible for writing the opinion on behalf of the jury? Would some jurors be allowed to file dissenting opinions? In his article, Stockwell recommends that since the PTO has established separate admission requirements like the registration examination, and internal non-jury tribunals like the Board of Patent Appeals and Interferences (Board), then it should also establish a separate jury system that would not violate the Seventh Amendment right to a trial by jury.[94]

This proposition, however, seems a bit out of place with respect to the comparisons made to the PTO's separate admission requirements and non-jury tribunals. For example, if an application for a patent is rejected by the Board, then an inventor may appeal that decision to the Federal Circuit.[95] Therefore, the non-jury tribunal referred to by Stockwell is one that does not necessarily act in cooperation with a court, but rather, acts alone. The decisions of the Board, for example, are not final because they can be appealed to the Federal Circuit.[96] However, the creation of a separate jury system by the PTO would have to be one that would work alongside the courts to make determinations of claim construction and infringement. One problem with this alternative is the location of the PTO with respect to the various jurisdictions. Would the professional jury formed by the PTO travel to the separate jurisdictions or would all patent litigation take place at the PTO? Furthermore, the issue of economics once again rears its ugly head. Who would be responsible for the cost associated with the professional jury? If patent litigation is to take place at the PTO, then the parties to the patent litigation would have to plan for added travel expenses when litigating a patent case.

D. *The Best Alternative*

For now, the best alternative for interpreting claims is to leave it in the hands of the judge. Stockwell's article illustrates how a professional jury could be utilized to take the responsibility of construing patent claims from the district court judge and put it back into the hands of the jury.[97] Although Stockwell provided a detailed description of the steps involved

94. *Id.* at 683.
95. MANUAL OF PATENT EXAMING PROCEDURES sec. 1216.01.
96. *Id.*
97. Stockwell, *supra* note 87, at 646.

in empaneling a professional jury,[98] the advantages of the professional jury must still be balanced against the various disadvantages and costs discussed above such as cost effectiveness and efficiency. The cost effectiveness is especially important because rising costs are putting the patent system more and more out of the reach of the small individual inventors with limited resources.

VI. TIMING OF *MARKMAN* HEARINGS

Since the U.S. Supreme Court did not provide any specific timing for holding *Markman* hearings, it appears that they can be held at several different stages during a patent litigation. For example, a judge can construe the claims before discovery begins, during discovery, at the end of discovery, or just before jury instructions at trial. This section will evaluate the pros and cons of the various times when the *Markman* hearings may be held. This section will also discuss the Northern District of California Patent Local Rules, which provide a time line for patent litigation. Lastly, this section will discuss the public policy reasons why *Markman* hearings should take place earlier instead of later.

A. *Possible Times During Patent Litigation to Hold* Markman *Hearings*

As previously explained, the *Markman* hearing that must take place for the proper interpretation of the claims in a patent infringement suit may be performed at several different times during a patent infringement case.[99] The possible times for holding the claim interpretation hearing that will now be discussed include pre-discovery, during discovery, at the end of discovery but before trial, and before the judge gives jury instructions at trial.

The first possible time, pre-discovery, is not feasible. In order to present a sufficient argument to a court so that a judge may properly interpret the claims, both parties must perform some detailed investigation. When having the *Markman* hearing during discovery, the parties should be able to examine and prepare for the arguments that will be made on both sides. This certainly will make for a better utilization of a court's valuable time and can be effectively performed during discovery. The question that arises, however, is the amount of time that should be set for discovery. Should the time vary from jurisdiction to jurisdiction? Should it depend on

98. *Id.* at 661.

99. *See infra* Part VI.

the complexity of the technology, or should it simply be the same for all patent litigation? Thus, the next question that arises is the timing of the *Markman* hearing in relation to discovery.

This leads to the next possible time to hold the *Markman* hearing: at the conclusion of discovery. As discussed in Section IV, some cases may require a district court judge to use extrinsic evidence to interpret claims.[100] Of course, this extrinsic evidence is generally collected during discovery. One alternative, however, is to conduct a claim interpretation hearing early in the discovery process, during which time the district court judge can determine whether or not extrinsic evidence will be necessary to construe the claims of the patent at issue. For example, both parties can make presentations to the judge as to why or why not extrinsic evidence should be considered, or even presented, during the *Markman* hearing. The district court judge may then be in a better position to determine a proper length of time for discovery. With respect to holding the claim interpretation hearing before trial, Circuit Judge Rader in *Loral Fairchild Corp. v. Victor Company of Japan* (Sitting in Designation) noted:

> With most aspects of trial hinging on this determination — now "strictly a question of law for the court" a conscientious court will generally endeavor to make this ruling before trial. A trial court faced with conflicting views of technical terms may prudently enlist the aid of qualified experts to determine the meaning of the claim terms. As in this case, this proceeding to assist the court in ascertaining the law is likely to occur after discovery in which the parties have exchanged information relevant to their understanding of the claims.[101]

Therefore, Circuit Judge Rader suggested that not only should the *Markman* hearing take place before trial, but since extrinsic evidence may be used by the district court judge to interpret the claims, the hearing should take place after discovery.[102] Circuit Judge Rader goes on to note that after discovery, the parties will have exchanged information relevant

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100. As previously noted above, and as discussed in Koster's article on the use of extrinsic evidence in construing a patent, extrinsic evidence should only be used when intrinsic evidence is not sufficient to allow the district court judge to interpret the claims. *See supra* text accompanying note 69. If the district court judge uses extrinsic evidence to construe the claims in a way that is contradictory to an interpretation found in the intrinsic evidence, that interpretation will likely be overruled on appeal.

101. Loral Fairchild Corp. v. Victor Co. of Japan, 911 F. Supp. 76 (E.D.N.Y. 1996) (citing *Markman I*, 52 F.3d 979, 34 U.S.P.Q. 2d 1329 (Fed. Cir. 1995)).

102. *Id.* at 79.

to their understanding of the claims.[103] This likely makes the claim interpretation process much more efficient and economic as well as easier for the district court judge construing the claim.

The last option that will be discussed is holding the *Markman* hearing after both parties have presented their arguments, but before the district court judge gives the jury instructions. As noted by Circuit Judge Rader in *Loral Fairchild Corp.*, most aspects of the patent litigation will hinge upon the district court judge's *Markman* ruling.[104] In *Cybor*, Circuit Judge Rader further noted in his dissent, that "the advantage of *Markman* hearings [*Markman I*] is that it provides early certainty of the claim terms and therefore, it prompts early settlement."[105] In discussing the ruling of *Markman I*, Circuit Judge Rader states that:

> [o]nce the parties know the meaning of the claims, they can predict with some reliability the likelihood of a favorable judgment, factor in the economics of the infringement, and arrive at a settlement to save the costs of litigation. *Markman I* promised to provide this benefit early in the trial court process. To provide fairness under the *Markman I* regime, trial judges would provide claim interpretations before the expense of trial.[106]

By holding the claim interpretation hearing after the parties have presented their cases, but before the district court judge provides jury instructions, the parties are prevented from knowing the boundaries of the patent until the end of the case. A patent infringement case can be somewhat analogized to a dispute over real property. Disputes over real property rely heavily on the boundaries of the property in question. Similarly, disputes in patent litigation revolve around the boundaries of protection provided by the patent grant. It would be difficult for the parties to formulate proper infringement or invalidity arguments regarding the patent at issue when there has not yet been a ruling as to the boundaries of protection provided by the patent grant. It would be even more difficult for the jury to follow the arguments made by both parties regarding infringement and invalidity when they too do not know the boundaries of protection provided by the patent grant.

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103. *Id.*

104. *Id.*

105. See Circuit Judge Rader's dissenting opinion in *Cybor*; Cybor Corp. v. FAS Tech., Inc., 138 F.3d at 1475 (emphasis added).

106. *See id.* at 1475.

B. *Northern District of California Patent Local Rules*

One model for the timing of patent infringement has recently been set by the U.S. District Court for the Northern District of California. As discussed in detail below, the Northern District of California Patent Local Rules include a time frame for the steps involved in patent litigation. The effective date of the rules are January 1, 2001. The following discussion will focus on a step by step analysis of the timing of patent litigation in a hypothetical case beginning on January 1, 2001.

Day one of the patent litigation, or January 1, 2001, in this hypothetical case, will include an Initial Case Management Conference, in which the parties confer regarding various topics. According to court rules, the topics will include: (1) proposed modifications of deadlines provided by the patent local rules; (2) whether live testimony will be presented in the *Markman* hearing; (3) the need for limits on discovery; (4) the order of presentation at the *Markman* hearing; and (5) the scheduling of the *Markman* hearing.[107] It is important to note that these courts require the parties to meet and discuss the intricacies of the *Markman* hearing and what steps will be taken before reaching the *Markman* hearing.[108] For example, the above mentioned topics include whether or not live testimony will be needed during the *Markman* hearing and the need for limits on discovery. This is advantageous in that it allows the parties to anticipate and agree on matters such as whether or not the parties are in for a lengthy and costly patent litigation. This section also provides for additional case management conferences if the need for them should arise.[109]

Within ten days of the Initial Case Management Conference, or on January 11, 2001, in this hypothetical case, "a party claiming patent infringement must serve on all parties a 'Disclosure of Asserted Claims and Preliminary Infringement Contentions.'"[110] The "Disclosure of Asserted Claims" and the "Preliminary Infringement Contentions" shall contain a detailed description of the claims and the allegedly infringing apparatus, product, device, process, method, act, or other instrumentality.[111] This rule goes into great detail as to document production, and more particularly, as to the specific documents that must be provided by the party claiming infringement.[112]

"Not later than 45 days after service upon it of the 'Disclosure of

107. Patent L. R. 2-1(a).
108. Patent L. R. 2-1(a-b).
109. Patent L. R. 2-1(b).
110. Patent L. R. 3-1.
111. Patent L. R. 3-1.
112. Patent L. R. 3-1.

Asserted Claims and Preliminary Infringement Contentions,' each party opposing a claim of patent infringement, shall serve on all parties its 'Preliminary Invalidity Contentions.'"[113] In the present hypothetical case, therefore, the "Preliminary Invalidity Contentions" will be provided by February 24, 2001. This rule requires the parties to provide a list of the prior art which allegedly anticipates each asserted claim or renders it obvious and a chart showing where in the prior art each asserted claim can be found.[114] Therefore, within 45 days of the commencement of the patent litigation in the Northern District of California, all of the parties are likely to be aware of the infringement and invalidity contentions on both sides. Once again, this quickly and efficiently provides all parties with a forward view of the patent litigation.

"Not later than 10 days after service of the 'Preliminary Invalidity Contentions' pursuant to Patent L. R. 3-3, each party shall simultaneously exchange a list of claim terms, phrases, or clauses which that party contends should be construed by the Court."[115] In the present hypothetical case, therefore, the simultaneous exchange of the claim terms that should be construed by the judge will be provided no later than March 6, 2001. This rule is advantageous because it quickly removes any ambiguity as to which terms a court is to construe. Additionally, this will likely decrease the costs associated with discovery by focusing both parties on the issues at hand rather than having the parties wasting valuable time and resources guessing which terms are going to be at issue.

Within twenty days after the exchange of the "Proposed Terms and Claim Elements for Construction," or March 26, 2001, according to the hypothetical case, the Northern District of California Patent Local Rules require all parties to simultaneously exchange preliminary proposed construction of each claim term which the parties collectively have identified for claim construction purposes.[116] The rule provides that the parties should simultaneously provide a "preliminary identification of extrinsic evidence, including without limitation, dictionary definitions, citations to learned treatises and prior art, and testimony of percipient and expert witnesses they contend support their respective claim constructions."[117] This rule limits the time available for expert witness depositions and research to only sixty-five days from the initial case

113. Patent L. R. 3-3.
114. Patent L. R. 3-3(a).
115. Patent L. R. 4-1.
116. Patent L. R. 4-2(a).
117. Patent L. R. 4-2(b).

management conference.[118] This can be a double-edged sword, however, because although it provides for a time efficient process, the gathering of this information in such a short period of time could be costly because it may necessitate a team of attorneys in order to get it done. Patent litigation is not unique to the region where the inventor is located, but can be nationwide, especially if the allegedly infringing invention is something that is sold or used nationwide. In such a case, gathering the required information in such a short time is a costly process. Furthermore, expert witnesses might also be located across the nation. The sixty-five day limit can work against the parties as it may dangerously limit the time available for gathering extrinsic evidence that may be necessary for the claim interpretation hearing. It can be advantageous to the patent holder whose patent is clearly drafted because the limited time will greatly decrease the cost of discovery, especially if the patent can stand on its own by not requiring any extrinsic evidence.

"Not later than 60 days after service of the 'Preliminary Invalidity Contentions,' the parties shall complete and file a Joint Claim Construction and Prehearing Statement."[119] Accordingly, in the present hypothetical case, the parties would therefore file the "Joint Claim Construction" and "Prehearing Statement" by April 25, 2001. The patent local rules note that the "Joint Claim Construction" should include: (1) a construction of the terms upon which both parties agree; (2) each parties proposed construction of claim terms in dispute; (3) anticipated length of time of the *Markman* hearing; (4) whether either of the parties intend to call any witnesses at the *Markman* hearing; and (5) a list of issues that should be heard by the judge at a prehearing conference prior to the *Markman* hearing.[120] Again, this is efficient in that it quickly eliminates many issues that a court would normally have to decide. Under the Northern District of California Patent Local Rules, the terms that the district court judge will have to construe are clearly set forth, thereby eliminating any speculation that may occur during the *Markman* hearing (which of course makes for a longer hearing).[121]

The Northern District of California rules then instruct the parties to complete all discovery relating to claim construction within thirty days of the filing of the "Joint Claim Construction" and the "Prehearing Statement."[122] In the present hypothetical case, therefore, discovery would

118. Patent L. R. 4-2(b).
119. Patent L. R. 4-3.
120. Patent L. R. 4-3(a-e).
121. Patent L. R. 4-3 (a-e).
122. Patent L. R. 4-4.

be closed by May 25, 2001. Once again, this becomes a double-edged sword. Under the Northern District of California's rules, discovery is closed just 145 days after the initial case management conference takes place. While this is an efficient process, complex patent litigation such as that in which more than one patent is at issue, the question must be asked whether or not 145 days is enough time to collect the information necessary to litigate the patents. Conversely, this is quite advantageous in the case of less complex patent litigation where only one patent is at issue. For example, the costs of discovery will likely decrease because both parties will have to find ways to maximize time efficiency because of the time constraints. This may mean foregoing a second expert witness opinion, or only relying on two treatises rather than three.

Within forty-five days after the "Joint Claim Construction" and "Prehearing Statements" are filed, the party claiming infringement is required to file an opening brief along with any evidence supporting its claim construction.[123] Within two weeks of filing the brief, the opposing party is required to file a responsive brief along with any supporting evidence.[124] Within one week after service of the responsive brief filed by the opposing party, the party claiming infringement is required to file a reply brief.[125] Accordingly, the due dates of the opening brief, the opposing party's responsive brief, and the reply brief in the present hypothetical case are June 9, 2001, June 23, 2001, and June 30, 2001, respectively. The *Markman* hearing will be held two weeks following the submission of the reply brief, subject to court availability.[126] Therefore, under the hypothetical case as presented throughout this discussion, the *Markman* hearing would take place by July 14, 2001, depending on court availability.

The Northern District of California Patent Local Rules have truly streamlined patent litigation. Within 195 days from the initial Case Management Conference, the *Markman* hearing is completed. The Northern District of California has made this possible by shifting the burden of eliminating issues into the hands of the parties. For example, the parties are required to present the construction of claim terms that are agreed upon and a determination of the claim terms that the parties cannot agree upon. The district court judge can therefore easily combine the agreed upon interpretation of the claims submitted by the parties (if the district court judge agrees with the interpretation of those claim terms) with the interpretation of the claim terms in dispute in order to provide a

123. Patent L. R. 4-5(a).
124. Patent L. R. 4-5(b).
125. Patent L. R. 4-5(c).
126. Patent L. R. 4-6.

speedy interpretation of the claims prior to the commencement of the trial phase of the litigation. The speed of this process in completing the *Markman* hearing truly gives the parties a good understanding of their case, where they stand, and the road ahead. In most cases, the interpretation of the claims will set forth the previously unknown boundaries of the patent at issue. With the boundaries clearly defined, the parties may be more willing to settle the case, rather than subject themselves to the extra costs associated with trial.[127]

C. *Hold Claim Interpretation Hearings Early to Provide More Certainty*

As presented above and as adopted by the U.S. District Court for the Northern District of California, the best possible time to hold *Markman* hearings is before trial and after a limited discovery period. A limited discovery period should last between five to six months. Although five to six months may seem to be a shortened period of time in relation to some of the year long discovery proceedings that currently exist in patent infringement cases throughout the various jurisdictions, it should be enough time to gather sufficient evidence in support of a particular construction of the claims. A five to six month limit on discovery should also effectively limit parties from stacking the testimony of numerous experts with similar qualifications who will counter the opposing experts.

One major reason for limiting discovery time and providing a fast claim interpretation hearing is to open the door to the patent litigation process to the small inventor. For example, the patent holder that is not a multi-million dollar company with an unlimited source of funds to pay legal fees. This is not to say that the door to the courts is closed to the small inventor, but rather, they are tough to access. Suppose an individual invents a device and eventually, after taking out small business loans, obtains a patent on the device. After obtaining the patent, suppose this individual approaches a large corporation with the patent grant and offers to license the invention to the large corporation. The large corporation is quite interested in the device, but decides to infringe the patent grant instead of paying for the license. The large corporation does this partly because they are aware that it will be very difficult and costly for the individual to enforce the patent against the large corporation. The corporation has a large legal department that can mount a defense to an infringement action, countersue for patent invalidity, or simply drag the case out until the individual can no longer

127. See Circuit Judge Rader's dissenting opinion in *Cybor Corp. v. FAS Tech., Inc.*, noting that *Markman* hearings provide early certainty which promotes settlement.

fund the case, thereby forcing small inventors to either settle or drop the case. What is the individual to do?

Unless supported by a wealthy investor believing in the patent, a small individual inventor, outside the Northern District of California, is not in the financial position to file a patent infringement suit to enforce the rights provided by the patent grant. Under the Northern District of California Patent Local Rules, however, the schedule of the patent litigation is known and a court can advantageously provide an early claim interpretation ruling using only a limited amount of time for discovery. A limited discovery period favors an individual inventor by decreasing the cost of patent litigation. The other side of this argument, however, is that the limited discovery period may prompt the parties to greatly increase the use of legal resources. For example, parties may hire numerous attorneys to take many depositions in the interest of conserving time, or may hire many paralegals to conduct research rather than just one paralegal. The increase in legal resources greatly increases the cost of patent litigation. With good planning and case management, however, the individual inventor should find the courts more accessible when a court limits discovery and holds the claim interpretation hearing before trial. Furthermore, and as noted by Circuit Judge Rader in *Cybor*,[128] an early claim interpretation by a court provides certainty of the claim terms and prompts early settlement, thereby enhancing court efficiency.[129] Therefore, the best time for a district court judge to hold a claim interpretation hearing is early in the patent litigation process.

VII. CONCLUSION

Over time, patent litigation has become costly, and accordingly, has sometimes made access to the courts quite difficult for individual inventors who do not have a great deal of the financial resources necessary to enforce the rights provided for by their patent grant. The introduction of *Markman* hearings, although necessary, somewhat increased the cost of patent litigation. Although the decision in *Markman v. Westview Instruments, Inc.* finally put to rest the question of whether claim interpretation is a question of fact for a jury to decide or a question of law for a judge to decide, the U.S. Supreme Court's decision that a district court judge should interpret claims in patent litigation created many new questions. On the question of whether a patentee's Seventh Amendment right to a jury trial is violated

128. *See* Cybor Corp. v. FAS Tech., Inc., 138 F.3d at 1475.
129. *Id.*

by allowing a judge to construe patent claims the Court concluded it is not. The Court held that because the issue of infringement is still decided by a jury, the patentee's Seventh Amendment right to a trial by jury is not violated.[130]

One issue that the *Markman* Court left unanswered concerns the timing of the claim interpretation hearing. The U.S. Supreme Court's decision instructed the district court judge to construe patent claims,[131] but gave judges no guidelines as to when during patent litigation to do so. Therefore, district court judges may interpret patent claims anytime during patent litigation. It would appear, however, that the most effective time to hold the claim interpretation hearing is before trial and after a limited discovery period. Perhaps best set forth in the Northern District of California Patent Local Rules, the claim interpretation hearing should be held shortly after the close of a four to six month discovery period to greatly reduce the high costs associated with patent litigation. This thereby provides greater access to the courts for individual patentees. Furthermore, by providing early certainty of the claim terms, especially when the interpretation of the claim language is dispositive of an issue of infringement or invalidity, early settlement can sometimes be prompted, and the efficiency of the courts can be maximized.

130. Markman v. Westview Instruments, Inc., 517 U.S. 370, 377 (1996).

131. *Id.* at 372.