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MARKMAN v. WESTVIEW INSTRUMENTS, INC.*
AND ITS PROCEDURAL SHOCK WAVE: THE
MARKMAN HEARING

Frank M. Gasparo**

INTRODUCTION

In Markman v Westview Instruments, Inc.,¹ the U.S. Supreme Court unanimously affirmed the U.S. Court of Appeals for the Federal Circuit's decision holding that a district court judge must construe, as a matter of law, the scope of a patent, including specifically the meaning of its claims.² This holding has caused a

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¹ 116 S. Ct. 1384 (1996). Markman v Westview Instruments, Inc. originated in the U.S. District Court for the Eastern District of Pennsylvania. See 772 F. Supp. 1535 (E.D. Pa. 1991). At trial, after the close of Markman's case in chief, Westview Instruments moved for judgment as a matter of law, which the court deferred ruling upon. Id. at 1536. Rather, the court instructed the jury that they were to first construe the patent's claims and then decide if infringement had occurred. Markman v. Westview Instruments, Inc., 52 F.3d 967, 973 (Fed. Cir. 1995) (noting the trial judge's instructions to the jury). The jury found that Westview's device, which was used in laundries and dry cleaners, infringed Markman's patent. Id. After hearing additional arguments following the verdict, the court granted Westview's deferred judgment as a matter of law motion and held that claim construction was a matter of law for the court. Markman, 772 F. Supp. at 1536. As a result, the court interpreted the meaning of the terms in the patent's claims and found that there was no infringement pursuant to the proper construction. Id. at 1536-38.
² Essentially, the claims in a patent document establish the outer boundaries for a patentee's exclusive right to prevent others from making, using or selling
major effect on patent litigation, the full extent of which is not yet known because the interpretation of a patent's claims usually determines which party will be victorious at trial. Furthermore, once the district courts take advantage of the Markman decision, it may prove to be the needed spark for a more efficient and expeditious patent litigation system.

While Markman demands that a patent's claims be construed by a judge, neither the Supreme Court nor the Federal Circuit have provided any guidance about how claim construction is to work in practice. As a result, many district courts have employed a new


This Note deals exclusively with utility patents. Utility patents are issued by the Patent and Trademark Office for "any new and useful process, machine, manufacture, or composition of matter, or any new or useful improvement thereof." Id. § 101 (1994). However, there are two other types of patents that can be issued, namely plant patents and design patents. Plant patents are issued for "any distinct and new variety of plant." Id. § 161 (1994). Design patents are issued for "any new, original and ornamental design for an article of manufacture." Id. § 171 (1994).

See, e.g., Elf Atochem N. Am., Inc. v. Libbey-Owens-Ford Co., 894 F. Supp. 844, 857-58 (D. Del. 1995). "The Federal Circuit's decision in Markman will undoubtedly change the face of patent litigation as it clearly did in this case." Id. Moreover, the court in Elf Atochem stated that a "number of procedural issues flow from [Markman]." Id. at 857. Such issues include: construing the claims, summary judgment motions, interlocutory appeals and final orders. Id. at 850, 857-58. See Gary M. Hoffman & John A. Wasleff, A Tale of Two Court Cases: Markman and Hilton Davis, 13 COMPUTER LAW. 18, 21 (1996) ("The Markman decision raises procedural questions that have yet to be answered.").


See generally Markman, 116 S. Ct. at 1384 (holding merely that a patent's claims be construed as a matter of law, but not offering any guidance to the district courts about when, during the litigation, claim construction should or
procedural step which has become known as a “Markman Trial,”6 (“Markman Hearing”), at which a trial judge will determine the meaning of a patent’s claims.7 These claim construction hearings have been wisely used by district courts as a pre-trial procedure,8 which induces efficiency by informing the parties early in a litigation how their trial strategy should be tailored.9 In particular,

6 Elf Atochem, 894 F. Supp. at 850. “The ‘obligation’ . . . to instruct the jury on the meaning of the words . . . in a claim basically leaves a district court with three options. The court can attempt to resolve the[se] disputes on the paper record[,] . . . can hold a trial to resolve these disputes[, or] . . . can wait until trial and attempt to resolve claim disputes the evening before the jury must be instructed.” Id. (emphasis added). The Delaware district court determined that it would hold a “Markman Trial” (hereinafter “Markman Hearing”) and the Elf Atochem opinion is often cited for establishing this procedure. Id.

7 For a general discussion of the Markman Hearing, see infra notes 89-97 and accompanying text.

8 See, e.g., Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 93 F.3d 1572, 1577 (Fed. Cir. 1996) (noting that the District Court for the Southern District of Ohio held a five-day pre-trial Markman Hearing); Chad Indus., 938 F. Supp. at 604 (providing a detailed description of what was required of the litigants prior to and during the pre-trial hearing); Graco Children’s Prods., Inc. v. Century Prods. Co., No. CIV.A.93-6710, 1996 WL 421966, at *4 (E.D. Pa. July 23, 1996) (holding pre-trial hearing); KLA Instruments Corp. v. Orbot Inc., No. C-93-20886-JW, 1996 WL 341113, at *1 (N.D. Cal. June 13, 1996) (holding two-day pre-trial hearing); Elf Atochem, 894 F. Supp. at 850 (holding two-day bench trial); Loral Fairchild Corp. v. Victor Co. of Japan, Ltd., 906 F. Supp. 798, 802 (E.D.N.Y. 1995) (holding two-day evidentiary hearing). See also WMS Gaming Inc. v. Int’l Game Tech., No. 94-C-3062, 1996 WL 539112, at *10 (N.D. Ill. Sept. 20, 1996) (stating that if the trial was not a bench trial, but rather to be tried by a jury, then the court would have held a Markman hearing in order to construe the patent’s claims).

9 For an illustration of the different procedural options available to litigants following a pre-trial claim construction hearing, see generally infra notes 93, 154-74 and accompanying text. To prevent the situation whereby a judge conducts a pre-trial claim construction hearing, but the parties undergo years of discovery only to find out on appeal that the construction was wrong, there must be an immediate appellate review of the construction following the pre-trial Markman Hearing. See infra notes 102-06 (discussing the need for early appellate
the Markman Hearing has become for litigants a springboard for alternative procedural paths, such as summary judgment motions,\(^\text{10}\) interlocutory appeals\(^\text{11}\) and settlement negotiations,\(^\text{12}\) due to the claim construction's inherently dispositive nature.\(^\text{13}\) Moreover, one district has gone even a step further than just holding Markman Hearings by drafting patent rules dealing exclusively with discovery prior to the hearing.\(^\text{14}\)

This Note explores the Markman Hearing and the procedural issues surrounding it. Part I provides an introduction to patents and the patent application process. Part II summarizes the Supreme Court's opinion in *Markman* for its limited analytical guidance to district court judges. Part III deals with the procedural junctures in a patent infringement litigation when a trial judge can interpret the claims, recognizing that a Markman Hearing can become a most efficient tool for the interpretation process. Part IV focuses on the extent of discovery prior to a Markman Hearing. This involves an examination of both the Federal Rules of Civil Procedure and the Northern District of California's recent response to *Markman* in review by the Federal Circuit).

\(^\text{10}\) See infra notes 154-71 and accompanying text (explaining briefly the use, and potential use, of summary judgment motions in patent infringement litigation). Even though this Note deals solely with the summary judgment motion, the same analysis applies to the motion for judgment as a matter of law. See generally FED. R. CIV. P. 50(a) (judgment as a matter of law); FED. R. CIV. P. 56 (summary judgment). The "primary difference between the two motions is [merely] procedural." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 251 (1986). The Supreme Court in *Anderson* stated that the difference is that "summary judgment motions are usually made before trial and decided on documentary evidence, while [judgment as a matter of law motions] are made at trial and decided on the evidence that has been admitted." Id. The standard used by the courts in granting either motion is identical. Id. at 250-51.

\(^\text{11}\) See infra notes 172-74 and accompanying text (advocating the need for granting more interlocutory appeals as a result of the *Markman* decision).

\(^\text{12}\) See infra note 171 (noting the settlement option available to litigants in an infringement suit).

\(^\text{13}\) See supra note 4 (noting sources that state the often dispositive nature of claim constructions).

\(^\text{14}\) See infra notes 128-35 and accompanying text (discussing the Northern District of California's current attempt to create local patent rules dealing with mandatory initial disclosures prior to a claim construction hearing).
promulgating local discovery rules that require mandatory disclosures prior to the hearing. Part V discusses the evidence a trial judge can utilize when construing a patent’s claims during a Markman Hearing. Moreover, it concentrates on the inefficiency associated with the use of expert testimony at the trial stage and, thus, the need for immediate appellate review of a claim construction to minimize any further waste of judicial resources. Part VI examines the efficacy of granting summary judgment motions early in a litigation, but also advances the need for courts to freely grant interlocutory appeals to further efficiency and fairness concerns. This Note concludes that a pre-trial Markman Hearing preceded by extensive discovery is a landmark procedural tool that is necessary for construing a patent’s claims and should become the sole method for a trial judge’s claim construction task.

I. OVERVIEW OF A PATENT AND THE PATENTING PROCESS

Abraham Lincoln said that “the patent system added the fuel of interest to the fire of genius.”\(^{15}\) The patent system has its origins in the U.S. Constitution, which expressly provides that Congress shall have the power to “promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their respective . . . Discoveries.”\(^{16}\) In 1790, President George Washington authorized the original framework for the patent system and what would later form the Patent and Trademark Office (“PTO”).\(^{17}\) Today, the PTO, through a patent examiner, determines initially whether an invention is patentable.\(^{18}\)


\(^{16}\) U.S. CONST. art. I, § 8, cl. 8.

\(^{17}\) U.S. DEP’T OF COMMERCE, PATENT AND TRADEMARK OFFICE (n.d.) (explaining briefly the background of the PTO and career opportunities working as a patent examiner). See HERBERT F. SCHWARTZ, PATENT LAW AND PRACTICE 1-4 (2d ed. 1995) (Federal Judicial Center) (reviewing the historical evolution of the patent from 500 B.C. to the 20th century).

\(^{18}\) SCHWARTZ, supra note 17, at 7-31 (explaining in detail the process that the Patent and Trademark Office (“PTO”) undergoes in issuing patents and the
If a patent is issued, the patentee is granted an exclusive right to prevent others from making, using, or selling the claimed invention for a period expiring twenty years from the patent’s filing date. This exclusive right is granted upon successful completion of the patent application process before a patent examiner in the PTO, otherwise known as patent prosecution. A patent examiner

PTO’s role after a patent is issued). Once an application is received by the PTO’s application division, the division sends the application to the examining group which oversees those applications falling within a particular technical category and class. SCHWARTZ, supra note 17, at 14. Next, the examining group disseminates the inventor’s application to an art group, which will then forward it to a patent examiner. SCHWARTZ, supra note 17, at 14. Finally, the patent examiner will conduct an extensive examination of the application and correspond with the inventor in order to inform him or her of the application’s status and whether any clarifications need to be made. See generally SCHWARTZ note 17, at 7-31 (detailing the entire patent prosecution process).


Id. § 154. As a result of the Uruguay Round Agreements Act, for patent applications filed on or after June 8, 1995, the expiration of a patent’s term changed from 17 years from issuance to 20 years from the filing date. Pub. L. No. 103-465, 108 Stat. 4809 (1994) (effective since December 8, 1994). See MARSHALL LEAFFER, UNDERSTANDING COPYRIGHT LAW § 1.11, at 21 n.90 (2d ed. 1995) (discussing some of the key aspects in patent law).

For patent applications filed on or after June 8, 1995, the term of a U.S. patent begins on the date of issue and continues until the date that is twenty years after the date on which the application that resulted in the patent was filed or, under certain conditions, the date on which an earlier filed application (that is referenced in the later filed application) was filed.

SCHWARTZ, supra note 17, at 86. In contrast, for patents which have not expired by June 8, 1995, or whose applications are still pending on June 8, 1995, the duration is either 17 years from the date of issue or 20 years from the date of filing, whichever is longer. SCHWARTZ, supra note 17, at 86 (footnote omitted).

SCHWARTZ, supra note 17, at 13-26 (explaining the prosecution process). See Stephen G. Whiteside, Note, Patents Claiming Genetically Engineered Inventions: A Few Thoughts on Obtaining Broad Property Rights, 30 NEW ENG. L. REV. 1019, 1020-21 (1996) (setting out the procedure for obtaining a patent and what protection a patent affords). There are numerous steps in the PTO’s examination process. See generally SCHWARTZ, supra note 17, at 14-25 (noting the steps a patent application may undergo until issuance). The following gives a broad overview of the process.
will grant a patent to an inventor only if all the statutory requirements are met. First, the invention must constitute patentable subject matter. Second, the invention must be "novel[",]

First, a patent examiner determines whether the application is clear, contains only one invention and meets the requirements of 35 U.S.C. § 111. See 35 U.S.C. § 111 (1994); SCHWARTZ, supra note 17, at 14. Second, a search is conducted of the prior art to determine if the invention is barred. SCHWARTZ, supra note 17, at 14-15. See infra notes 24, 26, 122 (discussing generally what prior art is and the role it plays in the patent examination process). Third, the applicant is sent an examiner's action, which includes a cover letter and written description of the current status of the application. SCHWARTZ, supra note 17, at 15. Within this action may also be a "restriction requirement" or an "election of species requirement" if the application contained more than one invention. SCHWARTZ, supra note 17, at 15. Moreover, the action may request clarification of the application, reject claims, withdraw claims, object to the specification or note any informalities. SCHWARTZ, supra note 17, at 15-16. Fourth, the applicant must respond to the action within a time period set by the patent examiner. SCHWARTZ, supra note 17, at 16. This response may include appropriate amendments to the application and "arguments designed to distinguish the invention as claimed from any prior art applied by the examiner." SCHWARTZ, supra note 17, at 16-17. Fifth, the patent examiner will reconsider the application. SCHWARTZ, supra note 17, at 17-18. If the applicant has complied with all of the examiner's requests or convinced the examiner to change his or her position, the examiner will send a notice of allowance to the applicant which indicates that a patent will issue as soon as the statutory fee is received. SCHWARTZ, supra note 17, at 17-18. If the applicant has not complied with all the examiner's requests, then multiple examiner's actions may result until the examiner is satisfied. SCHWARTZ, supra note 17, at 18. Upon a final rejection, an applicant can either "abandon the application, file an appeal with the Board of Patent Appeals and Interferences, take the allowed claims and cancel the others, or file [another] application." SCHWARTZ, supra note 17, at 19.

22 For a brief discussion of the various statutory requirements that must be met, see infra notes 23-27 and accompanying text.


24 Id. § 102(a) (1994). See SCHWARTZ, supra note 17, at 52 ("A product or process is not [novel] if all the elements of that product or process are present in a single piece of relevant prior art. . . . If a single piece of relevant prior art contains all the elements, it is said to anticipate the product or process.") (footnotes omitted).
“useful,” 25 “non-obvious” 26 and cannot be barred. 27

The patent application which is submitted by one or more inventors “consists of a specification, one or more drawings (if necessary), an oath or declaration, and the required filing fees.” 28 The specification, which includes a patent’s claims, must contain sufficient information regarding the “manner and process of making and using [the invention], in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same . . . .” 29 Moreover, the specification

25 35 U.S.C. § 101. See SCHWARTZ, supra note 17, at 51 (“For a product or process to be useful it must, at the very least, work, although it does not have to work perfectly or even better than any competing products or processes that might exist.”) (footnotes omitted).

26 35 U.S.C. § 103 (1994) (“A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”). See SCHWARTZ, supra note 17, at 58-64 (explaining the “nonobvious” requirement).

27 35 U.S.C. § 102(b), (d). A patent application may be barred, and thus rejected by the PTO, pursuant to 35 U.S.C. § 102 under two separate subsections. First, an application will be barred when

the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . . .

Id. § 102(b). In addition, an application will be barred when

the invention was first patented or caused to be patented . . . in a foreign country prior to the date of the application for patent in this country on an application for patent . . . filed more than twelve months before the filing of the application in the United States . . . .

Id. § 102(d).

28 SCHWARTZ, supra note 17, at 9. For an explanation of the various sections of a patent application, see SCHWARTZ, supra note 17, at 9-13.


[A] specification can have any format the drafter desires, although the PTO prefers the following format:

1. title;
2. cross-reference to related applications;
3. statement regarding government rights;
must present the "best mode contemplated by the inventor of carrying out his [or her] invention." Because a patent's claims define the scope of an inventor's rights and set out the subject matter of an invention, an inventor has an incentive to draft the broadest possible claims, whereas a patent examiner will try to narrow the claims as much as possible. Nevertheless, a court's construction is actually the ultimate arbiter of the scope of a patent.

Once a patent is issued, a patentee can bring an infringement action against an alleged infringer when that person "without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent." This action

4. background: (a) field of the invention, (b) description of related art;
5. summary of the invention;
6. brief description of the drawings;
7. detailed description of the invention, including the best mode (or description of the preferred embodiment);
8. claims;
9. abstract of the disclosure.


31 SCHWARTZ, supra note 17, at 11 ("The [patent's] claims set the metes and bounds of the patent owner's exclusive rights."). See Whiteside, supra note 21, at 1023-24 (explaining the role that claims play in a patent application).

32 Whiteside, supra note 21, at 1024 (commenting on the strategy of inventors in drafting broad patent claims). See SCHWARTZ, supra note 17, at 12 ("The claims of a patent may vary in scope. Broad claims include fewer elements, or limitations, than narrow claims and therefore cover a wider range of subject matter.").

Presumably, the reason why the PTO advocates the narrowing of a patent's claims is to balance two competing interests. Namely, the government wants to "promote the Progress of Science" by giving exclusive rights to inventors, which serves as an enormous incentive, yet not stifle any further technical progress by other inventors in having a patent with a broad scope. U.S. CONST. art. I, § 8, cl. 8.

33 35 U.S.C. § 271(a). For an extensive discussion of the necessary elements of 35 U.S.C. § 271(a) that must be proved in an infringement action, see SCHWARTZ, supra note 17, at 75-87. See also Jason Scully, Note, Markman and
can be based on literal infringement or on the doctrine of equivalents. For there to be literal infringement, an alleged infringing device must contain every element within a patentee's claim. However, for there to be infringement under the doctrine of equivalents, the appropriate inquiry is whether "the accused product or process contain[s] elements identical or equivalent to each claimed element of the patented invention."


See infra note 37 and accompanying text (defining the doctrine of equivalents and noting the recent Supreme Court decision Warner-Jenkinson Co. v. Hilton Davis Chem. Co.). See also Warner-Jenkinson, No. 95-728, 1997 WL 84999, at *3 (U.S. Mar. 3, 1997) (adhering to the doctrine of equivalents and detailing the appropriate inquiry to determine infringement under the doctrine).

SCHWARTZ, supra note 17, at 81 ("[A] claim is literally infringed if each properly construed claim reads on the accused product or process.") (footnote omitted).

Warner-Jenkinson, 1997 WL 84999, at *14. The U.S. Supreme Court has recently decided the long-awaited Warner-Jenkinson Co. v. Hilton Davis Chem. Co. case. See generally id. at *3. The Supreme Court’s opinion, written by Justice Thomas, began by stating that it rejected any invitation to "speak the death" of the doctrine of equivalents. Id. However, even though the Court adhered to the doctrine, it agreed with Judge Nies, who dissented from the Federal Circuit’s opinion in Hilton Davis, that the doctrine had "taken on a life of its own, unbounded by the patent claims” which are statutorily required to provide the scope of a patent. Id. at *8. To rectify what had become of the doctrine, the Court defined the proper inquiry to determine infringement under the doctrine of equivalents. Id. (agreeing with Judge Nies’ dissent from the Federal Circuit’s opinion in Hilton Davis).

Each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not the invention as a whole.
Patent infringement analysis reduces to two basic steps. First, the meaning of terms within a patent's claims must be interpreted by a court as a matter of law. Interestingly, prior to Markman, for centuries, many courts had treated claim construction as a matter of law. Conversely, some courts decided that there were

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Id. (emphasis added). The Court, however, did not precisely characterize the appropriate test for equivalence, but rather left it to the Federal Circuit's "sound judgment in this area of its special expertise." Id. at *14. The Court did provide that

an analysis of the role played by each element in the context of the specific patent claim will . . . inform the inquiry as to whether a substitute element matches the function, way, and result of the claimed element, or whether the substitute element plays a role substantially different from the claimed element.

Id. (emphasis added). Moreover, the Court stated that it was not necessary for it to answer the question of whether it was for a judge or jury to decide equivalence. Id. at *13. Instead, the Court deferred to the Federal Circuit's decision in Hilton Davis which declared that infringement under the doctrine must be decided by a jury. Id. (noting that the jury's role was supported by prior Supreme Court cases). To bolster its approval of the jury's role in deciding infringement under the doctrine of equivalence, the Court looked to its recent Markman v. Westview Instruments, Inc. decision and stated that "nothing in [that] . . . decision necessitate[d] a different result than that reached by the Federal Circuit." Id.

The above is meant solely as a fragmented overview of the Supreme Court's decision in Hilton Davis. The doctrine of equivalents and the Hilton Davis decision are beyond the scope of this Note and, thus, will not be addressed any further.

38 Markman, 116 S. Ct. at 1393 ("The two elements of a simple patent case, construing the patent and determining whether infringement occurred, were characterized by the former patent practitioner, Justice Curtis.") (footnote omitted). See Scully, supra note 33, at 634 (noting that infringement actions reduce to two basic steps).

39 Scully, supra note 33, at 634.

40 See, e.g., Winans v. Denmead, 56 U.S. (15 How.) 330, 338 (1853) (stating that the question of what is the device that is patented is a "question of law, to be determined by the court, construing the letters-patent, and the description of the invention and specification of claim annexed to them"); Silsby v. Foote, 55 U.S. (14 How.) 218, 225 (1852) ("The construction of the claim was undoubtedy for the court."). See also Amicus Brief for Matsushita Elec. Corp. at 13-14, Markman v. Westview Instruments, Inc., 116 S. Ct. 1384 (1996) (No. 95-26) (emphasizing that the Supreme Court has for centuries made it clear that claim
factual issues within a patent's claims, so that claim construction was a matter for the jury. Thus, Markman clarified years of disagreement about who might construe a patent's claims, the judge or the jury. Second, a jury, only after being instructed by a judge about the construction of the claims, will decide whether an accused device infringes the patent. This role of the jury in patent litigation is supported by centuries of case law and, more importantly, is protected by the Seventh Amendment of the U.S. Constitution.

In regard to the first step of claim construction, a Markman Hearing has been utilized by trial judges as a means of construing a patent's claims. This new procedural phase has revamped the traditional structure of such litigation. In addition, if this hearing is conducted pre-trial and preceded by extensive discovery, then

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41 See, e.g., Richard A. Machonkin, Note, Markman v. Westview Instruments, Inc. and Hilton Davis Chemical Co. v. Warner-Jenkinson Co.: The Federal Circuit Gets Its Laws and Facts Straight, 9 HARV. J.L. & TECH. 181, 186 (1996) ("If . . . the meaning of a term of art in the claims is disputed and extrinsic evidence is needed to explain the meaning, construction of the claims could be left to the jury. In the latter instance, the jury cannot be directed to the disputed meaning for the term of art.") (quoting McGill, Inc. v. John Zink Co., 736 F.2d 666 (Fed Cir. 1984), cert. denied, 469 U.S. 1037 (1984)).

42 Scully, supra note 33, at 634 (noting the second basic step in a patent infringement suit).

43 Markman, 116 S. Ct. at 1389 (establishing that patent infringement actions are protected by the Seventh Amendment because cases dating back to the 18th century tried such actions to a jury and today's infringement actions have their origin in this case law). The Seventh Amendment provides:

In 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.

U.S. CONST. amend. VII.

44 See infra notes 89-97 and accompanying text (describing what a Markman Hearing entails and advancing when during the litigation process a Markman Hearing should and should not be held by a trial judge).

45 See infra notes 90-94 and accompanying text (advocating the need to hold Markman Hearings prior to trial in order to foster efficiency concerns).

46 For a discussion in favor of having comprehensive mandatory initial disclosures prior to a Markman Hearing, see infra notes 114-16, 128-35 and
a fully informed judge can not only interpret the scope of a patent, but also provide an opportunity for litigants to efficiently tailor the time-consuming trial and likely appellate process.\textsuperscript{47}

II. \textsc{Supreme Court Opinion}

On April 23, 1996, the Supreme Court unanimously held that the construction of patent claims, including terms of art within the claims, is a matter of law reserved for the court and not subject to the Seventh Amendment’s right to a jury trial.\textsuperscript{48} The Court briefly explained the facts of the dispute.\textsuperscript{49}
Justice Souter, who wrote for a unanimous Supreme Court, began with an historical analysis of the Seventh Amendment's right to a jury trial in a patent infringement action.\textsuperscript{50} He noted that eighteenth-century infringement actions were tried at law by a jury.\textsuperscript{51} Thus, he reasoned that because today's patent infringement actions have their roots in these eighteenth-century actions, they too must be tried by a jury.\textsuperscript{52}

After determining that a cause of action for patent infringement is protected by the Seventh Amendment, the Supreme Court next set out its analysis for the more troubling question of whether the construction of patent claims themselves is a jury issue and, therefore, afforded the same Seventh Amendment protection.\textsuperscript{53} Again, Justice Souter turned to an historical approach, providing that "[w]here there is no exact antecedent, the best hope lies in comparing the modern practice to earlier ones whose allocation to

\begin{quote}
\textquote{particular invoice read \ldots and the invoice list.} Id. at 973. Westview contended that its device did not infringe because it could not record and track articles of clothing through the dry-cleaning process, but rather tracked invoices and transaction totals. Id.
\end{quote}

The dispute centered around the definition of the word "inventory" in independent claim one and dependent claim ten of Markman's patent as used in the phrases "maintain an inventory total" and "detect and localize spurious additions to inventory." Id. After hearing testimony about the meaning of the claim language, the jury found that Westview's device infringed Markman's patent. Id. Nonetheless, the district court granted Westview's deferred motion for judgment as a matter of law, stating that Westview's device was not capable of tracking articles of clothing throughout the dry-cleaning process, while retaining records on their status and location. Id.

The U.S. Court of Appeals for the Federal Circuit affirmed the lower court's holding that the interpretation of claim terms is the exclusive province of the court and is consistent with the Seventh Amendment. See generally id. at 976-89 (explaining extensively the reasons why claim construction is a question of law for the court). Subsequently, the Supreme Court unanimously affirmed. See generally Markman, 116 S. Ct. 1384 (reiterating, and expounding very little upon, the Federal Circuit's reasons for construing claims as a matter of law).

\textsuperscript{50} Markman, 116 S. Ct. at 1389 (looking to 18th-century case law for support).
\textsuperscript{51} Id.
\textsuperscript{52} Id.
\textsuperscript{53} Id.
court or jury we do know . . . seeking the best analogy we can draw between [the] . . . old and the new."\(^{54}\)

Justice Souter quickly disposed of any assertion that eighteenth-century patent claims were interpreted by a jury, since the inclusion of patent claims in a patent document did not become required until the Patent Act of 1870.\(^{55}\) Rather, he noted that patent infringement actions in the eighteenth century revolved around the construction of a patent specification.\(^{56}\) Hence, after being unconvinced that eighteenth-century cases construing patent specifications were even tried by a jury, Justice Souter refused to analogize them to today's patent claims.\(^{57}\) Furthermore, he noted that the nineteenth-century cases first involving actual patent litigation practice before the Supreme Court indicated that a judge, not a jury, construed a patent.\(^{58}\)

Before the Supreme Court proceeded to further support its holding that a judge is to construe the claims of a patent, it looked at two nineteenth-century cases that Markman, the respondent, advanced:\(^{59}\) Bischoff v. Wethered\(^{60}\) and Tucker v. Spalding.\(^{61}\) The respondent contended that Bischoff, as well as Tucker, whose reasoning rested on Bischoff, held that the meaning of terms in a patent document was a jury issue whenever expert testimony was needed to assist in the construction.\(^{62}\) However, Justice Souter

\(^{54}\) Id. at 1390.

\(^{55}\) Id. See 9 ERNEST B. LIPSCOMB III, WALKER ON PATENTS 89 (3d ed. 1990) (printing in full the Consolidated Patent Act of 1870, 16 Stat. 198 (1870)).

\(^{56}\) Markman, 116 S. Ct. at 1390.

\(^{57}\) Id. at 1391.

\(^{58}\) Id. at 1392 (citing several 19th-century cases as examples of a judge construing a patent: Winans v. New York & Erie R.R. Co., 21 U.S. (1 How.) 88, 100 (1859); Winans v. Denmead, 15 U.S. (1 How.) 330, 338 (1854); Hogg v. Emerson, 6 U.S. (1 How.) 437, 484 (1848)). In addition, the Supreme Court cited to the English case Bovill v. Moore in which the judge construed the terms in the patent specification, to reinforce that juries were not historically involved in interpreting terms in a patent document. Id. (citing to Bovill v. Moore, Dav. Pat. Cas. 361, 399, 404 (C.P. 1816)).

\(^{59}\) Markman, 116 S. Ct. at 1393-95.

\(^{60}\) 9 U.S. (1 Wall.) 812 (1870).

\(^{61}\) 13 U.S. (1 Wall.) 453 (1872).

\(^{62}\) Markman, 116 S. Ct. at 1393.
disagreed with such an interpretation and, in turn, stated that "[i]t [was] a case in which the Court drew a line between issues of document interpretation and product identification, and held that expert testimony was properly presented to the jury on the latter, ultimate issue, whether the physical objects produced by the patent were identical."\(^6\) Thus, the Supreme Court reasoned that the introduction of extrinsic evidence to assist a jury in understanding the character of an invention does not impinge upon the role of a judge to construe a patent's claims as a matter of law.\(^6\)

Upon finding no support in the history of patent litigation that a jury should construe the claims of a patent, the Supreme Court next turned to the interpretive skills of judges and juries.\(^6\) Justice Souter noted that the "fact/law distinction at times has turned on a determination that, as a matter of the sound administration of justice, one judicial actor is better positioned than another to decide the issue in question."\(^6\) To support the conclusion that a judge is better positioned, Justice Souter weighed heavily the assumption that a judge, through his or her training and discipline, has considerable experience in interpreting written instruments and, as a result, there is less of a chance that a mistake in claim interpretation will be made.\(^6\) He was not persuaded by the respondent's assertion that when a judge is determining the meaning of claim terms through the help of expert testimony, a judge will be making credibility determinations that are the proper role for a jury.\(^6\) Justice Souter rightfully admitted that credibility determinations may be made during claim construction.\(^6\) Nevertheless, he

\(^{63}\) Id. at 1394.

\(^{64}\) Id. (referring to A. WALKER, PATENT LAWS § 75, at 68 (3d ed. 1895) and 2 W. ROBINSON, LAW OF PATENTS § 732, at 481-89 (1890) to further exemplify the non-dispositive function of extrinsic evidence in determining whether claim construction is for a judge or a jury).

\(^{65}\) Id. at 1395-96 (concluding that a judge is better suited to construe a patent's claims, which may include determining the meaning of certain patent terms because a jury is not familiar with the standard interpretation techniques for such written instruments).

\(^{66}\) Id. at 1395.

\(^{67}\) Id.

\(^{68}\) Id.

\(^{69}\) Id.
contended that a judge must still construe the claims as a matter of law because "any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole." Therefore, regardless of any "evidentiary underpinnings," the Supreme Court declared that a judge is better trained to evaluate an entire patent document to determine the meaning of claim terms.

Lastly, Justice Souter looked to the policy of creating a uniform patent process to justify allocating the obligation of construing the claims to a judge. Emphasizing that the U.S. Court of Appeals for the Federal Circuit was established for the sole purpose of creating this uniformity, Justice Souter enumerated several

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70 Id. But see infra notes 143-53 and accompanying text (discussing the inefficiency of having trial judges make, at times, pivotal credibility determinations, only to have the Federal Circuit overlook such determinations during their de novo review).
71 Markman, 116 S. Ct. at 1396.
72 Id.

The decisionmaker vested with the task of construing the patent is in the better position to ascertain whether an expert's proposed definition fully comports with the specification and claims and so will preserve the patent's internal coherence. We accordingly think there is sufficient reason to treat construction of terms of art like many other responsibilities that we cede to a judge in the normal course of trial, notwithstanding its evidentiary underpinnings.

Id. at 1395-96.
73 Id. ("[W]e see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court."). The Supreme Court quotes from various sources to support the need for uniformity. Id. (quoting United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236 (1942), General Elec. Co. v. Wabash Appliance Corp., 304 U.S. 364, 369 (1938), and Merrill v. Yeomans, 94 U.S. 568, 573 (1877)).
74 Id. (noting that "increased uniformity would 'strengthen the United States patent system in such a way as to foster technological growth and industrial innovation'" (citing H.R. REP. NO. 312, 97th Cong., 1st Sess. 20 (1981))).

[T]he uniformity in the law that will result from the centralization of patent appeals in a single court will be a significant improvement from the standpoint of the industries and businesses that rely on the patent
reasons why the interpretation of claim terms should also be driven by such a policy concern.\textsuperscript{75} He proclaimed that the "'[l]imits 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.'"\textsuperscript{76}

Despite the holding in \textit{Markman} that judges must construe a patent’s claims, nowhere in Justice Souter’s opinion,\textsuperscript{77} nor in the concurring and dissenting opinions of the Federal Circuit in \textit{Markman}, was there any suggestions as to how.\textsuperscript{78} In particular, there was no practical advice for district court judges to follow regarding when, during a patent infringement litigation, claim language could or should be interpreted.\textsuperscript{79}

III. \textbf{When Can a Trial Judge Interpret Patent Claims?}

As a result of the Federal Circuit’s silence in \textit{Markman}, and the lack of any guidance by the subsequent Supreme Court decision, district courts have formulated three options available to a trial judge for when claims can be interpreted.\textsuperscript{80} First, a judge can

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\textsuperscript{75} \textit{Markman}, 116 S. Ct. at 1396.
\textsuperscript{76} \textit{Id.} (citing General Elec. Co. v. Wabash Appliance Corp., 304 U.S. 364, 369 (1938)).
\textsuperscript{77} Some commentators have suggested that the Supreme Court in \textit{Markman} may have revealed an option that is available to trial judges for when claims can be construed. \textit{See infra} notes 107-12 and accompanying text (noting the possible use of a jury’s claim construction as an advisory determination for a court’s ultimate post-trial interpretation).
\textsuperscript{78} \textit{See supra} note 5 (pointing out the lack of procedural guidance by both the Supreme Court and, more surprisingly, the Federal Circuit which commonly hears appeals based on patent infringement issues).
\textsuperscript{79} \textit{See supra} note 5 (indicating the lack of practical advice by the Federal Circuit and the Supreme Court in \textit{Markman}).
\textsuperscript{80} \textit{See} Elf Atochem N. Am., Inc. v. Libbey-Owens-Ford Co., 894 F. Supp. 844, 850 (D. Del. 1995). The court set forth what it believed to be the three
construe a patent's claims on the paper record. Second, a judge can hold a separate bench trial, which has come to be known as a Markman Hearing. Third, a judge can wait until all the evidence has been presented at a trial, and prior to instructing a jury, before taking a hiatus to construe a patent's claims.

The first option of construing a patent's claims solely on the paper record will only be of use to a trial judge when there is no

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options that are available to a trial judge regarding when claims can be construed, due to the "obligation" created by the Federal Circuit to instruct the jury on the meaning of the words used by the inventor in a claim . . . " Id. It is quite ironic that the district courts themselves have established the framework for when claims can be construed, rather than the Federal Circuit which was created by Congress to make the patent litigation process more uniform. ROBERT L. HARMON, PATENTS AND THE FEDERAL CIRCUIT § 16.1(b), at 617, 621 (3d ed. 1994) (noting that the Federal Circuit was established to "bring about uniformity in the area of patent law" and, thus, make the outcome of patent litigation more predictable).

Elf Atochem, 894 F. Supp. at 850. See infra notes 84-88 and accompanying text (describing briefly the first option and when it will be available to trial judges). An instance when a judge could construe a patent's claims just on the paper record is upon either litigant making a summary judgment motion prior to a Markman Hearing. See, e.g., Moll v. Northern Telecom, Inc., No. CIV.A.94-5451, 1995 WL 733389, at *3 (E.D. Pa. Dec. 11, 1995) (granting a partial summary judgment motion on the construction of six of the patent's claims before a pre-trial Markman Hearing was held). However, a judge will likely deny such a pre-trial motion and hold a Markman Hearing in which expert testimony can be heard. See, e.g., id. at *3, 10-11 (denying a partial summary judgment motion on the construction of two of the patent's claims until a Markman Hearing was held and a "more developed record" was established to assist the judge in the interpretation). See also infra note 171 (noting that most courts will hold a Markman Hearing to construe a patent's claims, rather than attempt to construe the claims just on the paper record).

Elf Atochem, 894 F. Supp. at 850. See infra notes 89-97 and accompanying text (describing the Markman Hearing as a recently developed procedural step held by numerous trial judges as a method for interpreting a patent's claims). For the various districts which have implemented a pre-trial Markman Hearing, see supra note 8.

Elf Atochem, 894 F. Supp. at 850. See infra notes 98-106 and accompanying text (describing the option available to judges of waiting until the end of a trial to construe a patent's claims and pointing out the inefficiency in such an option). For cases in which a judge had waited until the end of a trial to construe a patent's claims, see infra note 98.
ambiguity about the claim's proper interpretation. When such an instance arises, a judge can perform the claim construction without the aid of expert testimony at a pre-trial Markman Hearing. However, due to the technical complexity of the subject matter in most patent infringement suits and the fact that the paper record alone may not be clearly explanatory, a judge will likely want to hear expert testimony before construing the claims. Thus, this first option will not be of much practical use to a trial judge, particularly in light of the other available options.

84 Northern Telecom, 1995 WL 733389, at *8 (stating that the claim's terms were defined by their common dictionary meaning and thus the movant was entitled to summary judgment on the claim construction because there was no infringement of those terms).

85 In Moll v. Northern Telecom, Inc., the court was confronted with a partial summary judgment motion regarding the construction of eight claims. Id. at *3. Before a pre-trial Markman Hearing was held, the court granted the motion for six of the patent's claims after examining evidence submitted by the parties. Id. This paper record included the patent's claims and specification, "exhibits from the prosecution history, declarations of technical expert witnesses, deposition transcripts, and answers to various interrogatories and discovery request." Id. Because the judge was able to clearly construe these claims from the paper record alone, there was no need to wait until the pre-trial Markman Hearing was held. Id.

86 SCHWARTZ, supra note 17, at 130 (noting that the technical nature of even a rudimentary patent case requires answers to "very complex intellectual questions").

In patent cases involving complex technology . . . jurors [as well as judges] may be confronted with remarkably complex evidence concerning inventions produced by the best minds in biogenetics, physics, computer technology, and so on. SCHWARTZ, supra note 17, at 130 (footnote omitted).

87 Northern Telecom, 1995 WL 733389, at *10-11 (deciding not to construe two of the patent's claims from just the paper record because a "more developed record [was] required"). The Northern Telecom court stated that to perform the claim construction task properly it needed to hear "expert testimony and a dissection of the [patent] specification at a Markman bench trial." Id. at *10.

88 See generally infra notes 89-112 (discussing the other available options for when a patent's claims can be construed, such as holding a Markman Hearing or waiting until the end of a trial). A judge should be looking to promote fairness among the litigants and therefore be hesitant in construing a patent's claims on the paper record because his or her construction can play a dispositive
The desire for additional evidence has caused most trial judges to choose the second option, the so-called Markman Hearing. This hearing can be conducted either before or during an actual trial. To effectuate the inherent benefits of this claim construction hearing, it should be conducted prior to a trial. This benefit has been enunciated by numerous judges and commentators as being the potentially dispositive nature of claim construction. With this in mind, the parties can determine, after the conclusion of the hearing, what procedural path they should take.

role in the ensuing litigation. See supra note 4 (noting the potentially dispositive nature of a claim construction).

See supra note 8 (illustrating some of the courts that have held such claim construction hearings). See also John B. Pegram, Markman and Its Implications, 78 J. PAT. & TRADEMARK OFF. SOC’Y 560, 566 (1996) (“It is likely that most courts will hold a ‘Markman Hearing’ before the trial to receive argument by the attorneys and possibly expert testimony, likely to be in the form of opinion.”).

Once a judge decides that he or she will hold a Markman Hearing, the next issue facing the judge is specifically when during the litigation the hearing should be conducted. Pegram, supra note 89, at 566 (debating whether a Markman Hearing should occur before trial or in the early stages of trial); Joseph R. Re & Joseph F. Jennings, Answers and Questions Raised by the Federal Circuits Markman and Hilton Davis Decisions, in WINNING STRATEGIES IN PATENT LITIGATION 1995, at 877, 909-10 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 423, 1995) (questioning the appropriate time for a Markman Hearing). The hearing could be conducted at the “summary judgment stage, at a pre-trial conference, or as a motion in limine.” Re & Jennings, supra, at 910.

Loral Fairchild Corp. v. Victor Co. of Japan, Ltd., 911 F. Supp. 76, 79 (E.D.N.Y. 1996). The district court in Loral stated that the “meaning of claim terms is the central issue in patent litigation [and . . . w]ith most aspects of trial hinging on this determination . . . a conscientious court will generally endeavor to make this ruling before trial.” Id. (emphasis added). This significant statement that claim construction should occur before trial was written by Judge Randall R. Rader of the Federal Circuit. Id. at 76.

See supra note 4 (exemplifying the opinion that claim construction often determines which party will be victorious at trial); supra note 91 (quoting Judge Randall R. Rader of the Federal Circuit as stating that claim construction is a central issue in patent infringement litigation and, thus, may determine which party will triumph).

There are several procedural options available to the parties after a Markman Hearing has concluded. The alleged infringer may make a summary judgment motion to dispose of the entire case, claiming that there is “no genuine
Furthermore, a court, by holding a pre-trial hearing, would be creating an opportunity to preserve the limited judicial resources that are inevitably utilized during a lengthy, and sometimes circuitous, trial.\textsuperscript{94}

During a Markman Hearing, the parties may, in the court's discretion, submit various forms of extrinsic evidence, such as technical dictionaries, textbooks, deposition statements by witnesses and affidavits by expert witnesses, to support their proposed claim constructions.\textsuperscript{95} In addition, a judge will most likely elect to hear testimony from expert witnesses regarding the meaning of the terms

\textsuperscript{94} Upon holding a pre-trial claim construction hearing, a court might have the occasion to grant a summary judgment motion on the entire case or the litigants may reach a settlement. \textit{See infra} notes 154-71 (discussing summary judgment motions and partial summary judgment motions in patent infringement litigation); \textit{infra} note 171 (noting the settlement option which litigants may decide to elect once a patent's claims are construed). If either of these occur, the trial process will be short-circuited and, thus, judicial resources will be spared.

\textsuperscript{95} Elf Atochem N. Am., Inc. v. Libbey-Owens-Ford Co., 894 F. Supp. 844, 848 (D. Del. 1995) (providing examples of the extrinsic evidence that parties may submit). \textit{See infra} notes 141-47 and accompanying text (describing what extrinsic evidence is, the role it plays in patent infringement litigation and the appropriate instances when a judge can rely on such evidence).
in the claims because the primary purpose in holding a Markman Hearing is to give a judge an opportunity to have expert witnesses testify.\textsuperscript{96} After the hearing and upon the evaluation of all the evidence brought forth by both parties, a trial judge can then better construe a patent's claims. Once the claims are construed in a Markman Hearing, the parties may have the occasion to appeal the claim construction to the Federal Circuit.\textsuperscript{97}

The third option available to a judge is to construe a patent's claims at the end of a trial, before instructing the jury.\textsuperscript{98} Presumably, a Markman Hearing will not be needed at this point in a trial because a judge will have already heard all the relevant evidence. However, there are disadvantages in waiting.\textsuperscript{99} One such detriment

\textsuperscript{96} See Loral Fairchild, 911 F. Supp. at 79 (noting that a district court presented with "conflicting views of technical terms may prudently enlist the aid of qualified experts to determine the meaning of the claim terms"). See also infra notes 143-53 and accompanying text (referring to the use of expert testimony by judges to assist in the interpretation of a patent's claims and the practical problem associated with such use, namely credibility determinations).

\textsuperscript{97} For a discussion of the various ways in which a claim construction may be appealed early in a litigation, such as the granting of a summary judgment motion or interlocutory appeal, and the corresponding benefits, see infra notes 102-06, 154-74 and accompanying text.

\textsuperscript{98} See, e.g., Vitronics Corp. v. Conceptronics, Inc., 39 U.S.P.Q.2d 1573, 1575 (Fed. Cir. 1996); Exxon Chem. Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1555 (Fed. Cir. 1995), cert. denied, 116 S. Ct. 2554 (1996); Johns Hopkins Univ. v. Celpro, 894 F. Supp. 819, 826 (D. Del. 1995). The third option available to a trial judge has been advocated by practitioners because it allows a court to hear a more complete and thorough array of evidence throughout the progression of an entire trial. Interview with Errol B. Taylor, Partner, Fitzpatrick, Cella, Harper & Scinto, in New York, N.Y. (Aug. 19, 1996). But see Pegram, supra note 89, at 566 (stating that because the Federal Circuit in Markman "limited the materials which the judge is required to consider in construing the claims," the argument is unpersuasive that a judge should wait until the end of trial after all evidence has been presented).

\textsuperscript{99} Judge Schwartz of the U.S. District Court for the District of Delaware has stated that "[t]wenty years of trial experience convinces . . . [him] that any jury hiatus should be avoided if at all possible." Lucas Aerospace, Ltd. v. Unison Indus., L.P., 890 F. Supp. 329, 332 n.3 (D. Del. 1995). For further negative commentary on waiting until the end of trial to construe a patent's claims, see Elf Atochem, 894 F. Supp. at 857 (stating that as a jury waits, there are "serious practical problems of how to adequately and fairly rule on [the] . . . difficult and
is having a jury simply wait while a judge examines the voluminous trial transcript and additional briefs filed by the parties which can take a number of days. This hiatus creates the possibility that the jury will forget vital and pivotal evidence in the often complicated litigation.

Furthermore, to foster efficiency throughout the litigation process, a judge should not wait until the end of a trial to construe a patent's claims. When claim construction occurs before trial or in the early stages of trial, a judge's construction is in a prime position to be appealed to the Federal Circuit for de novo review. This can be accomplished, for example, through the vitally important issue[] of claim construction after all evidence has been presented); Robert C. Scheinfeld, 'Markman' Issues Ready for Supreme Court Review, N.Y. L.J., Dec. 15, 1995, at 3 (commenting on the impracticality of having a jury wait while a judge construes the claims before deliberating on the issue of infringement). But see Elf Atochem, 894 F. Supp. at 857 (stating that in a bench trial there are no practical problems when a judge waits until the end to construe the claims after all evidence has been presented) (emphasis added).

Lucas Aerospace, 890 F. Supp. at 332 n.3 (noting the time-consuming process of construing a patent's claims during a trial as a jury waits, but stating that a judge should not rush the claim interpretation because it is "[u]fair to the litigants when claim construction more often than not determines the outcome on infringement").

Id. (discussing the "practical problem[s]" associated with a judge's claim construction at the end of a trial, in particular the risk that a jury will forget important facts during such a hiatus).

Scheinfeld, supra note 99, at 3 (noting that efficiency dictates against construing claims at the end of trial).

Pegram, supra note 89, at 567 (emphasizing that efficiency concerns dictate holding a Markman Hearing before trial so that a case will be in a position to be appealed to the Federal Circuit which conducts a de novo review). A case can be appealed in one of four ways before the actual trial is completed, but not necessarily after a Markman Hearing has concluded. Pegram, supra note 89, at 567-70. First, a court can grant a summary judgment motion. Pegram, supra note 89, at 567-68. See infra notes 154-71 and accompanying text (discussing the summary judgment motion). Second, a court can submit a request for an interlocutory appeal, which the Federal Circuit has the discretion to accept. Pegram, supra note 89, at 568. See infra notes 172-74 and accompanying text (discussing the interlocutory appeal). Third, once a court either grants or rejects an injunction, the parties have a right to an immediate appeal. Pegram, supra note 89, at 568-69. Finally, "when there is more than one claim for relief or
granting of an interlocutory appeal\textsuperscript{104} or a summary judgment motion.\textsuperscript{105} By the Federal Circuit reviewing claim construction early in a litigation, a jury will not have wasted weeks sitting on a trial that was the product of an erroneous judicial construction.\textsuperscript{106}

According to the Federal Circuit's majority opinion in \textit{Markman}, which stated that claim interpretation "may also be done in the context of dispositive motions such as those seeking judgment as a matter of law,"\textsuperscript{107} commentators have noted that there seems to be a fourth option available to a judge for when a patent's claims can be construed.\textsuperscript{108} This option permits a judge to submit the question of claim construction to a jury in the form of special interrogatories, but limits the jury's answers to an

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\textsuperscript{104} See 28 U.S.C. § 1292 (providing that the granting of this appeal involves the discretion of both the district court and the Federal Circuit). \textit{See also Elf Atochem}, 894 F. Supp. at 857 (depending on whether factual disputes exist about the accused product, interlocutory appeals or a final order may be appropriate to bring the claim construction issue promptly before the Federal Circuit); infra notes 172-74 and accompanying text (advocating the need for courts to grant more interlocutory appeals). \textit{But see Pegram, supra} note 89, at 568 (listing reasons why interlocutory appeals are not commonly granted).

\textsuperscript{105} See FED. R. CIV. P. 56. \textit{See also Pegram, supra} note 89, at 567-68 (providing time when summary judgment motions may be granted and appealed); infra notes 154-71 and accompanying text (discussing broadly summary judgment motion practice in patent infringement litigation and the efficiency concerns which are furthered when such motions are granted early in a litigation).

\textsuperscript{106} \textit{Elf Atochem}, 894 F. Supp. at 857.

\[1]\text{[I]n jury cases, it may be more efficient to put the case in a posture to have the Federal Circuit review the claim interpretation issue before trying the case to a jury, in order to avoid wasting two weeks or more of a citizen's time because the court erroneously instructed the jury on the meaning of a claim term.}

\textit{Id.}


\textsuperscript{108} Hoffman & Wasleff, \textit{supra} note 3, at 19-20 (commenting on the additional option that may be available to a trial judge).
“advisory determination”\textsuperscript{109} when construing the claims as a matter of law on a post-trial motion.\textsuperscript{110} If this proves to be a viable option available to a trial judge, the crux lies in a judge’s use of special interrogatories.\textsuperscript{111} Specifically, by implementing special interrogatories, the Federal Circuit on appeal can determine the exact claim construction used by a jury in determining whether infringement occurred. Thus, the Federal Circuit can reinstate the

\textsuperscript{109} Laitram Corp. v. NEC Corp., 62 F.3d 1388, 1394 (Fed. Cir. 1995).

\textsuperscript{110} Id. The court in Laitram Corp. v. NEC Corp. did not construe the patent’s claims before or during trial, rather the court gave the issue of claim construction to the jury in the form of special interrogatories. Id. However, the court did recognize that “claim construction is a legal issue within the sole province of the court” and thus merely treated the jury’s construction as an “advisory determination.” Id. See Motorola, Inc. v. Interdigital Tech. Corp., 930 F. Supp. 952, 962 (D. Del. 1996) (noting that even though the “more efficient course” may be to inform a jury of the proper claim construction, a court may still construe a patent’s claims after a jury verdict on a post-trial judgment as a matter of law motion) (quoting Fonar Corp. v. General Elec. Corp., 902 F. Supp. 330, 337 n.3 (E.D.N.Y. 1995), aff’d in part, rev’d in part, 107 F.3d 1543 (Fed. Cir. 1997)); Hoffman & Wasleff, supra note 3, at 19 & n.19 (noting the Laitram court’s use of the jury as an advisory panel).

\textsuperscript{111} Amicus Brief for Matsushita Elec. Corp. at 17-21, Markman v. Westview Instruments, Inc., 116 S. Ct. 1384 (1996) (No. 95-26) (arguing that if a jury must construe patent claims, then special interrogatories should be used so that the jury’s construction can be reviewed). In contrast, general interrogatories will not have the same effect for the obvious reason that the appellate court will be unable to ascertain the jury’s claim construction, and a new trial will be inevitable. Id. at 21-22 (explaining the “perils of general verdicts”).

Special interrogatories are those used for a special verdict and are defined as:

written questions susceptible of categorical or other brief answer or . . . written forms of the several special findings which might properly be made under the pleadings and evidence; or . . . such other method of submitting the issues and requiring the written findings thereon . . . .

FED. R. CIV. P. 49(a) (1994).

In contrast, general interrogatories are those used for a general verdict are defined as:

written interrogatories upon one or more issues of fact the decision of which is necessary to a verdict. . . . [T]he court . . . direct[s] the jury both to make written answers and to render a general verdict.

FED. R. CIV. P. 49(b).
jury's verdict to avoid the time-consuming procedure of reconstructing the claims, assuming the jury's claim construction was correct.¹¹²

In sum, by holding a pre-trial Markman Hearing, rather than utilizing one of the other options, a court can attempt to properly construe the claims as a matter of law with all the necessary extrinsic evidence, and yet appreciate the possibility that it engaged in an incorrect claim construction. At the conclusion of the hearing, the door will have been left open for the chance at an early appellate review.¹¹³

IV. THE EXTENT OF DISCOVERY PRIOR TO A MARKMAN HEARING

In light of Markman, discovery prior to and during a Markman Hearing is vital to a litigation due to the plausibly dispositive nature of the claim construction.¹¹⁴ Therefore, a trial judge should see to it that the parties begin a Markman Hearing fully aware of all relevant information.¹¹⁵ A judge's duty to determine the

¹¹² See, e.g., Laitram, 62 F.3d at 1394-95 (reversing and remanding with instructions to reinstate the jury verdict).

¹¹³ See supra notes 102-06 and accompanying text; see also infra notes 154-74 and accompanying text (exploring the different ways in which a litigant can obtain an early appellate review and recommending the need for holding such reviews immediately following a claim construction hearing).

¹¹⁴ See supra note 4 (illustrating the various sources that note a claim construction's potentially dispositive role in a litigation). See also Hoffman & Wasleff, supra note 3, at 20 (stating that discovery should not be entered into before the claim construction hearing because the litigation could be avoided through the granting of an early partial summary judgment motion).

¹¹⁵ If a Markman Hearing is conducted too early in a litigation, discovery issues may arise. For example, parties may not have ample time to complete their discovery before the hearing and thus lack all the necessary material to attack the opposing party's claim construction theory. See Viskase Corp. v. American Nat'l Can Co., No. 93-C-7651, 1996 WL 377054, at *3 (N.D. Ill. July 1, 1996) (noting the importance of having all parties fully prepared for the pre-trial Markman Hearing because such a hearing can significantly shorten the subsequent jury trial). Moreover, the parties may be uncooperative with each other. See, e.g., Laser Indus., Ltd. v. Reliant Tech., Inc., 167 F.R.D. 417, 419 (N.D. Cal. 1996) (noting a party's resistance in disclosing certain documents by claiming that the
meaning of claim terms will greatly be eased if all the relevant evidence has already been produced, leaving only expert testimony to be heard at the judge’s discretion. Such a result is achieved by making the discovery process more efficient, less costly and less time-consuming.116

information was privileged). See also Viskase, 1996 WL 377054, at *2 (stating that if an adverse party is uncooperative in discovery, timely extensions should be sought for the discovery period).

To promote efficiency at the discovery stage, a trial judge should take an active role in the discovery process, which is feasible due to the unique nature of a claim construction hearing. See infra Part IV.B (mandating that the parties disclose specific material before the claim construction hearing, while a judge indirectly oversees the entire process). However, the Federal Rules of Civil Procedure (“Federal Rules”) require that a trial judge take a hands-off approach. See generally FED. R. CIV. P. 26 (1994) (providing rules for discovery that are essentially party-controlled and party-initiated). On occasion, the Federal Rules do allow a judge to intervene in the discovery process when disputes arise. For example, a judge may grant motions to compel discovery or issue protective orders. FED. R. CIV. P. 26(c) (protective orders); FED. R. CIV. P. 37 (1994) (motion to compel discovery).

It should be noted that the discovery process has several goals: (1) to identify the issues for trial, (2) to eliminate surprise, (3) to preserve evidence that may not be available at the trial, (4) to discourage “lazy” lawyers, and (5) to promote settlement. Telephone Interview with Jennifer L. Rosato, Professor, Brooklyn Law School (Oct. 10, 1996). See Loral Fairchild Corp. v. Victor Co. of Japan, Ltd., 911 F. Supp. 76, 79 (E.D.N.Y. 1996) (noting that the Federal Rules were drafted to “eliminate surprise”).

116 Responding to such policy concerns, the Federal Rules were amended in 1993 to require mandatory initial disclosures. See FED. R. CIV. P. 26(a); infra notes 117-27 and accompanying text (discussing the adoption of the mandatory initial disclosure requirement to the Federal Rules and the lack of a similar requirement in any state’s local patent rules).

A major purpose of the revision [was] to accelerate the exchange of basic information about the case and to eliminate the paper work involved in requesting such information, and the rule should be applied in a manner to achieve these objectives. . . . [T]he experience of the few state and federal courts that have required pre-discovery exchange of core information such as is contemplated in Rule 26(a)(1) indicates that savings in time and expense can be achieved. . . . [T]he present revision puts in place a series of disclosure obligations that . . . are designed to eliminate certain discovery, help focus the discovery that is needed, and facilitate preparation for trial or settlement.
A. Discovery Under the Federal Rules of Civil Procedure

Rule 26 of the Federal Rules of Civil Procedure ("Federal Rules") allows for a broad scope of discovery. The parties "may obtain discovery regarding any matter, not privileged, which is relevant to the subject matter involved . . . ." Such discoverable material may be acquired, for example, through the use of interrogatories or depositions during a patent infringement litigation. However, the discovery process may be a prolonged and arduous task.

To make the discovery stage more efficient, the Federal Rules mandate that certain material be automatically given to the opposing party at the beginning of a litigation. Despite this


In addition, the U.S. District Court for the Northern District of California is currently undergoing the process of promulgating local patent rules that deal exclusively with discovery prior to a Markman Hearing. See Proposed Local Rules of Practice in Patent Cases: United States District Court for the Northern District of California (visited Feb. 3, 1997) <http://www.callaw.com/-patrules.html>; infra app. (providing the Northern District of California’s most current draft of the Local Rules of Practice in Patent Cases which entails an extensive amount of mandatory initial disclosures before a mandatory claim construction hearing). For a discussion of the policy reasons for having mandatory initial disclosures prior to a Markman Hearing, see infra notes 128-35 and accompanying text.

Advisory Committee’s Notes, FED. R. CIV. P. 26 (1983 amendments) (commenting on the “broad, permissive terms of the rules”).

FED. R. CIV. P. 26(b)(1).

See FED. R. CIV. P. 33 (1994) (setting forth the requirements for serving interrogatories upon parties).

See FED. R. CIV. P. 30 (1994) (setting forth the requirements for oral depositions); FED. R. CIV. P. 31 (1994) (setting forth the requirements for written depositions).

FED. R. CIV. P. 26(a)(1) (mandating that the parties, without awaiting a discovery request, provide to each other certain initial disclosures). For the underlying policy reasons of Rule 26(a)(1), see supra note 116.

Even though Rule 26(a)(1) provides for certain mandatory disclosures, not all the district courts have implemented the requirement since its addition in 1993. DONNA STIENSTRA, RESEARCH DIVISION, FEDERAL JUDICIAL CENTER, IMPLEMENTATION OF DISCLOSURE IN UNITED STATES DISTRICT COURTS, WITH
requirement, these mandatory initial disclosures are not well suited for the discovery period proceeding a Markman Hearing or, more generally, the unique nature of a patent infringement action. A patent infringement action involves specific relevant information, such as any "prior art" a party may be aware of and a party's "claim charts." Materials such as these are not included in the general mandatory initial disclosures under the Federal Rules. The parties must, therefore, make discovery requests accordingly.

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122 "Prior art" is defined as "any relevant knowledge, acts, descriptions and patents which pertain to, but predate, [the] invention in question. . . . Prior art may . . . be relied on by a court to hold a patent claim invalid, i.e., not novel or not unobvious." BLACK'S LAW DICTIONARY 1193 (6th ed. 1990) (citations omitted). See HARMON, supra note 80, § 3.2-.4 (explaining in detail what constitutes prior art and how a patent can be declared invalid, or a patent application denied, due to prior art).

123 "Claim charts" are created by a patentee to show how the accused infringing device "reads on" each of the patent's claims. See, e.g., Nike Inc. v. Wolverine World Wide, Inc., 43 F.3d 644, 648 (Fed. Cir. 1994) (noting the adverse party's request that the patentee produce claim charts that detail how the patent's claims allegedly read on their product). See also infra app. § 2-2(a) (describing a claimant's obligation under the Northern District of California's proposed local patent rules to create claim charts that must be disclosed to an adverse party within a specified time period). In addition, opposing claim charts may be created by an alleged infringer to "identify all items of prior art that anticipate [a] claim or render it obvious," thus attempting to render the patent invalid. Infra app. § 2-2(b).

124 See generally FED. R. CIV. P. 26(a) (mandating the initial disclosure of specific materials, none of which expressly captures knowledge of prior art or the production of claim charts).
Due to the general nature of Federal Rule 26(a), the Federal Rules permit courts to follow local discovery rules that deal with certain areas of the law more specifically. In the area of patent law, however, there are no local patent rules currently in effect which address mandatory initial disclosures. Thus, discovery before an early Markman Hearing may be inefficient, due to the lack of structure and administrative guidance.

B. Mandatory Discovery in the Northern District of California

Realizing that Markman has created procedural inefficiency at the pre-trial stage, the advisory committee from the Northern District of California has drafted local patent rules to supplement

125 FED. R. CIV. P. 26(a)(1) ("Except to the extent otherwise stipulated or directed by . . . local rule," Federal Rule 26 is applicable). "The enumeration in Rule 26(a) of items to be disclosed does not prevent a court from requiring by order or local rule that the parties disclose additional information without a discovery request." H.R. Doc. No. 103-74, 103d Cong., 1st Sess. 225 (1993). See STIENSTRA, supra note 121, at 1 (stating that Federal Rule 26 gives a federal court flexibility in exempting all or some cases from the mandatory initial disclosure requirements).

126 The Northern District of California's local patent rules are not yet in effect. See infra note 128 (noting the current status of the local patent rules and the expected adoption date). For a critique of the policy virtues of these mandatory initial disclosure rules, see infra notes 128-35 and accompanying text. See also infra app. (providing the most recent draft of the rules).

127 The parties will likely have to grapple with each other and the court to have the opposing party produce the needed relevant material necessary to be fully prepared for a claim construction hearing. See 1 ETHAN HORWITZ & LESTER HORWITZ, PATENT LITIGATION: PROCEDURE & TACTICS § 5.01(2) (1996) (observing that the discovery process in patent litigation is usually a "source of bitterness and acrimony"). The court in Lee Pharmaceuticals v. Den-Mat, Inc. stated that the discovery process was "aggressive, abusive, and harassing." 197 U.S.P.Q. 62, 62 (C.D. Cal. 1976). See HORWITZ & HORWITZ, supra ("There is rarely a spirit of co-operation [during discovery]. Nothing is done voluntarily; everything requires an order of the court . . . .") (citing Minnesota Mining & Mfg. Co. v. Norton Co., 36 F.R.D. 1, 3-4 (N.D. Ohio 1964)). Efficiency concerns in preserving judicial resources dictate otherwise.
the Federal Rules. The local rules are the first of their kind to require mandatory initial disclosures prior to a mandatory claim construction hearing. The committee's purpose was to establish a "uniform set of pre-trial procedures" and "to reduce the occasion for Standing Orders by individual judges."

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128 See infra app. (functioning pursuant to 28 U.S.C. § 2071 (1994) and Fed. R. Civ. P. 83 (1994)). See also Lynn H. Pasahow, Discovery Downsizing Under the Influence of the Rule Changes and Rocket Dockets, in PATENT LITIGATION 1996, at 151, 153, 169-71, 174-89 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 456, 1996) (noting that if the local patent rules proposed in the Northern District of California are adopted, they will require "significant change[s] in current practice"). The advisory committee has submitted a draft of these local patent rules to the district court which is expected to officially adopt them in mid 1997. Telephone Interview with Ian Keye, Operations Manager, Northern District of California (Apr. 7, 1997). The public comment period ended February 14, 1997, and subsequently the comments were sent to Judge Ronald M. White, who oversees a committee that will evaluate them. Telephone Interview with Ian Keye, Operations Manager, Northern District of California (Feb. 11, 1997). See JEANNE J. BOWDEN, FEDERAL JUDICIAL CENTER, A PRACTICAL GUIDE TO REVISION OF LOCAL COURT RULES 1, 12 (1988) (commenting on the Federal Rule 83 requirement that a district court give the public notice of any proposed local rules and allow for public comment). However, the chair of the advisory committee expects very little change because the rules have already received excellent reviews from the patent field in California. Telephone Interview with Daniel Johnson, Chair of the Advisory Committee, Northern District of California (Oct. 10, 1996).

There are several reasons that may cause a court to amend its local rules. BOWDEN, supra, at 1-2. Some of these reasons include "changes in federal law and in the Federal Rules of Civil Procedure," "increases in the number of case filings," "additions of judgeships" and "significant changes in the types of cases or complexity of cases filed in the court." BOWDEN, supra, at 1.

129 See generally infra app. (requiring an extensive amount of material to be disclosed among all parties before the commencement of a claim construction hearing).

130 Infra app. § 1-2(a).

131 Infra app. § 1-2(a). "Standing orders" are defined as "[r]ules adopted by particular courts for governing practice before them. In some states [, presumably California,] the presiding judge has authority to adopt standing orders for his court alone." BLACK'S LAW DICTIONARY, supra note 122, at 1405. See BOWDEN, supra note 128, at 9 (noting that the U.S. District Court for the Northern District of Georgia's primary purpose for revising its local rules was to "review . . . [the] judges' individual civil pretrial practices and . . . [to adopt] uniform pretrial
Under the district court's local rules, both parties have numerous mandatory initial disclosures. Consequently, these rules establish a more productive discovery process, including a rigid time frame to produce the material, to precede a compulsory Markman Hearing. The result of such local rules will be to

documents for the court). See generally infra app. (providing the disclosure requirements for the claimant and the adverse party, along with the rigid time frame to produce such disclosures before the parties must meet with the court and mutually agree on a date to hold a mandatory pre-trial Markman Hearing).

In a different context, yet apparently inspired by similar policy concerns, courts, which follow the Civil Justice Reform Act, have established a "relatively rigid time frame" which provides that cases will be tried within one year from filing the complaint and will not exceed two weeks. Elf Atochem N. Am., Inc. v. Libbey-Owens-Ford Co., 894 F. Supp. 844, 857 (D. Del. 1995). The court in Elf Atochem specifically noted:

Experience with this relatively rigid time frame shows that it promotes more efficient resolution of civil matters. For example, faced with firm and certain trial dates parties are often encouraged to settle rather than proceed with trial. Furthermore... this time frame assures parties that by a date certain they will have a final resolution of issues facing and affecting them as a result of litigation.

Id. These underlying policies can very well be extended to and support the reasoning behind a rigid time frame in the discovery process preceding a mandatory claim construction hearing. See generally infra app. (setting forth an efficient discovery process by requiring the claimant and adverse party to make disclosures within specific time frames).

An argument may be made that a litigant who does not have the financial resources to hire a team of attorneys to work on his or her case will be unable to satisfy such discovery requirements. Accordingly, such a litigant can attempt to invoke a discovery limitation under the Federal Rules.

The... extent of use of the discovery methods otherwise permitted... by any local rule... shall be limited by the court if it determines that... the burden or expense of the proposed discovery outweighs its likely benefit, taking into account the needs of the case, the amount in controversy, the parties' resources, the importance of the issues at stake in the litigation, and the importance of the proposed discovery in resolving the issues.

FED. R. CIV. P. 26(b)(2). In addition, the Northern District of California's local patent rules state that a trial judge can modify the time limits for any of the mandatory initial disclosures and require the litigants to "follow procedures different from those set forth.” See infra app. § 1.2(c).
provide a judge with an effective evidentiary procedure to construe claims as a matter of law. This is precisely what is needed to make the process more efficient as well as expeditious.\textsuperscript{135} Hopefully, the format of these local rules will be adopted by other district courts as well, so that the parties and judges can begin a claim construction hearing fully apprised of all relevant material.

V. Evidence Available to a Trial Judge During a Markman Hearing

For a trial judge to construe a patent's claims during a Markman Hearing, both intrinsic and extrinsic evidence will be admitted.\textsuperscript{136} The Federal Circuit in \textit{Markman} first defined intrinsic evidence\textsuperscript{137} and reiterated that a trial judge must rely on such

\textsuperscript{135} For a general discussion of the underlying policy concerns associated with a rigid discovery process and a subsequent claim construction hearing, see \textit{supra} notes 115-16.

\textsuperscript{136} \textit{Vitronics Corp.} v. Conceptronic, Inc., 39 U.S.P.Q.2d 1573, 1576 (Fed. Cir. 1996) (noting that there are two kinds of evidence in patent litigation). Even though admittance of extrinsic evidence, such as expert testimony, is discretionary by a judge, a judge will likely accept the aid of such evidence at a Markman Hearing because the hearing is usually held for that very purpose. See \textit{Viskase Corp.} v. American Nat'l Can Co., No. 93-C-7651, 1996 WL 3777054, at *1 (N.D. Ill. 1996) (deciding to hold a "separate evidentiary hearing on the Markman issues" and allowing a party to present at the hearing three technical experts). Otherwise, the judge could have construed the claims just on the paper record. See \textit{supra} notes 81, 84-88 (discussing the alternative of construing a patent's claims merely from a paper record).

\textsuperscript{137} 52 F.3d 967, 979-80 (Fed. Cir. 1995) (explaining the well-established forms of intrinsic evidence available to a trial judge in order to interpret the meaning of patent claims). As the Federal Circuit defined "intrinsic evidence," a trial judge must first look to the "claims [themselves], the specification, and the prosecution history" when determining the meaning of claim terms. \textit{id}. at 979 (quoting Unique Concepts, Inc. v. Brown, 939 F.2d 1558, 1561 (Fed. Cir. 1991)). See \textit{Vitronics}, 39 U.S.P.Q.2d at 1576 ("[I]ntrinsic evidence is the most significant source of the legally operative meaning of disputed claim language."). This evidence cannot "enlarge, diminish, or vary the limitations in the claims." \textit{Markman}, 52 F.3d at 981. Additionally, the terms in a patent's claims are usually given their ordinary and customary meaning. \textit{Vitronics}, 39 U.S.P.Q.2d at 1576 ("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
evidence before depending on any extrinsic evidence. Then, the court defined extrinsic evidence in a manner that blurred the usefulness of expert testimony. The Supreme Court subsequently attempted to refine the analysis.

Invention . . . “) (quoting Hoechst Celanese Corp. v. BP Chems. Ltd., 78 F.3d 1575, 1578 (Fed. Cir.), cert. denied, 117 S. Ct. 275 (1996)). However, the patentee is “free to be his own lexicographer” and, thus, a judge must view the definition of terms in light of the patent’s specification. Markman, 52 F.3d at 980. The reason for referring to a patent’s specification is that it is a written description of the invention that must allow a person of “ordinary skill in the art to make and use [the invention].” Vitronics, 39 U.S.P.Q.2d at 1577. This written description can act as a “dictionary” to explain the invention and define claim terms. Markman, 52 F.3d at 979-80. Thus, the patent specification is relied on by courts as a key means of defining terms in a patent.

[T]he 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, 39 U.S.P.Q.2d at 1577.

In addition to the claims themselves and the specification, a judge should consider a patent’s prosecution history, if admitted as evidence. Markman, 52 F.3d at 980 (discussing the role of the prosecution history in determining the construction of a claim). The prosecution history is considered the “undisputed public record” of the proceeding before the Patent and Trademark Office. Id. It serves as a highly relevant source in determining the meaning of terms in the claims because a patentee expressly states the scope of the invention during the prior proceeding. Id. (citing Goodyear Dental Vulcanite Co. v. Davis, 102 U.S. 222, 227 (1880)).

52 F.3d at 983 (declaring that extrinsic evidence cannot be relied on because the patent document itself and the prosecution history clearly define the meaning of the claim’s terms).

Id. at 981 (defining what extrinsic evidence a trial judge can consider, yet stating that a judge cannot make credibility determinations or weigh any extrinsic evidence). See infra notes 143-153 and accompanying text (analyzing the inefficiency of a de novo review by the Federal Circuit when credibility determinations and evidence weighing has necessarily occurred at the trial stage).

Markman v. Westview Instruments, Inc., 116 S. Ct. 1384, 1395 (1996) (clarifying the Federal Circuit’s opinion by stating that credibility determinations will occur, but they will be “subsumed” within the proper construction of the entire document). See infra notes 143-53 and accompanying text (agreeing with the Supreme Court’s admission that credibility determinations will be made by trial judges, yet pointing out the lack of deference to these judges and, thus, the ultimate waste of judicial resources).
Under the Federal Circuit's approach, once a judge evaluates all the intrinsic evidence and concludes that there is still an ambiguity in a patent claim, the judge can then admit extrinsic evidence. However, this evidence may be used by a judge only to aid in his or her understanding of "scientific principles, . . . technical terms, and terms of art that appear in the patent or prosecution history." In sum, the main role of extrinsic evidence is to assist a judge in understanding the subject matter of a patent's claims and to clear up any ambiguities.

A practical question arises as to how a court separates the use of extrinsic evidence solely in understanding the subject matter of the public record from the court's inadvertent reliance on such evidence when actually construing the claims. The answer is

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141 Extrinsic evidence is any evidence that is not in a patent itself or in the prosecution history, such as "expert and inventor testimony, dictionaries, and learned treatises." Markman, 52 F.3d at 980. See Vitronics, 39 U.S.P.Q.2d at 1577 (explaining that when a patent's claims, specification, and prosecution history unambiguously define the disputed terms, extrinsic evidence cannot be relied on by a judge). See also Markman, 52 F.3d at 978-79 (stating that it is "only fair (and statutorily required) that a competitor be able to ascertain [from the patent document and the prosecution history alone] to a reasonable degree the scope of a patentee's right to exclude," without worrying whether the scope will be changed by future use of extrinsic evidence).

142 Markman, 52 F.3d at 980. Moreover, the Federal Circuit in Markman reiterated the already established principle that extrinsic evidence cannot vary or contradict a patent's claims, specification or prosecution history. Id. at 981 (citing U.S. Indus. Chems., Inc. v. Carbide & Carbon Chems. Corp., 315 U.S. 668, 678 (1942)). See Vitronics, 39 U.S.P.Q.2d at 1579 (finding that the trial court used extrinsic evidence incorrectly to vary the meaning of claim terms because the patent's specification unambiguously defined the terms).

Remarkably, the Federal Circuit has recently admitted that instances can occur when a judge cannot interpret the meaning of the claim terms from looking at the public record and, therefore, the judge can rely on expert testimony for the claim construction. Id. Such instances, in which extrinsic evidence plays a dominant and pivotal role in claim construction, raise a substantial policy issue. See infra notes 143-53 and accompanying text (discussing the inefficiency in having a trial judge's claim construction reviewed de novo when credibility determinations have necessarily been made, but advancing the need to hold such appeals shortly thereafter to circumvent at least some of the resources wasted).

143 For an example of a judge mistakenly relying on the claim interpretation of one of the parties after hearing extrinsic evidence, see Exxon Chem. Patents,
unclear, and, as a result, a dilemma arises with the use of one type of extrinsic evidence: expert testimony.144

Trial judges hear expert testimony in most patent infringement cases to assist the court in understanding technical and convoluted material. Such testimony is relevant to a judge’s ultimate claim construction. Appreciating its popular use by many trial judges, the Federal Circuit stated that the court “has complete discretion to adopt the expert legal opinion as its own, to find guidance from it, or to ignore it entirely, or even to exclude it.”145 As a direct result of this discretion, trial judges who hear such expert testimony have stated that credibility determinations are made along with the weighing of conflicting testimony.146 Therefore, a resentment has grown among these judges toward the Federal Circuit because it offers no deference to the judge’s assessment of the weight of the testimony that leads to their claim construction.147

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144 The problem of ignoring a trial judge’s credibility determinations and evidence weighing begins with a judge’s use of expert testimony, but does not actually culminate into a problem until the claim construction reaches the appellate level, where the Federal Circuit must review the construction de novo. For a discussion of this dilemma and an obvious solution, see infra notes 145-53 and accompanying text.

145 Markman, 52 F.3d at 981. See Re & Jennings, supra note 90, at 888-99 (examining the Federal Circuit’s position on the use of expert testimony).

146 See, e.g., Lucas Aerospace, Ltd. v. Unison Indus., L.P., 890 F. Supp. 329, 333 n.7 (D. Del. 1995) (proclaiming that a judge makes credibility determinations and weighs evidence whenever he or she adopts the meaning of a claim term proffered by a party’s expert or, alternatively, decides to reject all expert opinions about the definition of a claim term); Loral Fairchild Corp. v. Victor Co. of Japan, Ltd., 906 F. Supp. 798, 809, 810 n.2 (E.D.N.Y. 1995) (referring to witness demeanor as having “great reticence and equivocation” and being “argumentative” and “obviously geared to the outcome of the litigation”).

147 Lucas Aerospace, 890 F. Supp. at 333 n.7. As Judge Murray M. Schwartz stated in Lucas Aerospace:

If those possessed of a higher commission wish to rely on a cold written record and engage in de novo review of all claim constructions, that is their privilege. . . . [B]ound by slavish adherence to the fiction that a judge does not make credibility determinations when confronted with testimonial extrinsic evidence en route to pronouncing the “true” meaning of a patent claim, this opinion has been crafted in a manner that leaves the reader, and the reviewing court, uninformed as to the
The Supreme Court addressed the issue of credibility determinations and the weight of expert testimony by stating that "[i]t is . . . true that credibility judgments have to be made about the experts who testify in patent cases . . . [but i]n the main . . . any [such] credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document . . . ." However, as the Federal Circuit admitted in *Vitronics Corp. v. Conceptronics, Inc.*, when a trial judge is unable to determine the meaning of the terms from the "patent documents, taken as a whole," a judge may rely on expert testimony. Thus, while the Supreme Court minimized the significance of any credibility determinations with respect to expert testimony, the Federal Circuit admitted that such testimony may at times play an essential role in a judge's claim interpretation.

credibility assessments which, as always, are necessary precursors to the acceptance or rejection of testimonial evidence from competing experts.

Id. (emphasis added).

148 Markman v. Westview Instruments, Inc., 116 S. Ct. 1384, 1395 (1996). See *Markman*, 52 F.3d at 981 (stating that a judge is "not crediting certain evidence over other evidence or making factual evidentiary findings").


150 Id. at 1578-79. "No doubt there will be instances in which intrinsic evidence is insufficient to enable the court to determine the meaning of the asserted claims, and in those instances, extrinsic evidence, such as [expert testimony] . . . may also properly be relied on . . . to construe the claims." Id. See Robert Gurrola, *CAFC Rules Extrinsic Evidence May Not Vary or Contradict Unambiguous Patent Claims*, WEST'S LEGAL NEWS, Aug. 1, 1996, at 7873, available in 1996 WL 427608 (summarizing *Vitronics*, 39 U.S.P.Q.2d 1573). In *Vitronics Corp. v. Conceptronics, Inc.*, the court notes that this situation "will rarely, if ever, occur." 39 U.S.P.Q.2d at 1579. The court was merely making a hollow assumption about how frequently district courts will rely on expert testimony and offered no further support for its statement. In reality, such reliance can occur, and when it does the Federal Circuit ignores the judge's time-consuming weighing of evidence and credibility determinations. See, e.g., *Loral Fairchild*, 906 F. Supp. at 802 (noting that the paper record was insufficient to construe the patent's claims and, as a result, each side was permitted to have two expert witnesses testify at the Markman Hearing to assist the court with the claim construction).
Consequently, when a trial judge relies on expert testimony and makes pivotal decisions about the weight of that testimony, necessarily including credibility determinations, the Federal Circuit overlooks it in its de novo review of the paper record. Therefore, a trial judge who admits expert testimony during a Markman Hearing may be inadvertently engaging in inefficient behavior that seriously impedes the role of a trial judge.

Besides the presence of such a dilemma with expert testimony, a Markman Hearing should be held before trial and coupled with

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151 See, e.g., Exxon Chem. Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1556 (Fed. Cir. 1995) "No matter when or how a judge performs the Markman task, on appeal we review the issue of claim interpretation independently without deference to the trial judge." Id. (emphasis added).

152 This is not the only situation that exemplifies such inadvertent and inefficient behavior of a trial judge. But see infra notes 172-74 and accompanying text (noting how judicial resources can be saved by having an immediate appellate review following a Markman Hearing). It is irrelevant whether a trial judge is relying on expert witnesses because the public record is insufficient or merely using the testimony to help understand the complex material. In either situation, the judge is arguably making credibility determinations and weighing evidence that will be ignored by an appellate court during its de novo review of the paper record. See supra notes 143-51 and accompanying text (exploring the controversial issue that the Federal Circuit offers trial judges no deference).

The purpose of implementing a vast amount of judicial resources to construe a patent's claims with the help of expert witnesses must be questioned, due to the likelihood of an ensuing appeal. See infra notes 172-74 and accompanying text (offering an obvious antidote: having an immediate appellate review as soon as a trial judge construes a patent's claims). As a result of the lack of deference to a trial judge and a trial judge's questionable role in the claim construction process, a "prominent practitioner has even suggested that a new appellate arm be created to hear claim construction questions . . . [in order to] bypass a district court's interpretation." Hoffman & Wasleff, supra note 3, at 21 (footnote omitted).

Neither the [Court of Appeals for the Federal Circuit] nor the Supreme Court has chosen to heed the Court's previous assertion that the trial is the 'main event' rather than just a 'tryout on the road' to later appellate review.

a quick appellate review of the claim construction in order to circumvent any further inefficiency that may result from proceeding via a wrong construction.\textsuperscript{153} Realizing the possibility that there was an improper construction and also that trial judges will at times use evidence in a manner that the Federal Circuit will not appreciate in its de novo review, a pre-trial hearing in all patent litigations may conserve a far greater amount of judicial resources than if claim construction occurred after weeks or months of trial.

VI. THE POTENTIAL INCREASE IN GRANTING SUMMARY JUDGMENT MOTIONS AND INTERLOCUTORY APPEALS AS A RESULT OF MARKMAN

The Federal Circuit has repeatedly emphasized that "'summary judgment is as appropriate in a patent case as in any other,"\textsuperscript{154} and that "it is no longer debatable that the issues in a patent case are subject to summary judgment."\textsuperscript{155} Historically, however, summary judgment motions were not recognized in patent litigation.\textsuperscript{156} The primary reasoning of these courts was that a patent's

\textsuperscript{153} For a discussion of why appeals should be freely granted by the courts, see \textit{infra} notes 172-74 and accompanying text.

\textsuperscript{154} Avia Group Int'l, Inc. v. L.A. Gear Cal., Inc., 853 F.2d 1557, 1561 (Fed. Cir. 1988) (quoting Spectra Corp. v. Lutz, 839 F.2d 1579, 1581 n.6 (Fed. Cir. 1988)).

\textsuperscript{155} \textit{Id.} The Supreme Court has stated that the function of a summary judgment motion is to determine "whether there is the need for a trial—whether, in other words, there are any genuine factual issues that properly can be resolved only by a finder of fact because they may reasonably be resolved in favor of either party." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250 (1986). Following the \textit{Anderson} decision, a commentator stated that "[i]t is important to see, whether . . . the legal system gives too little credence to [the summary judgment] device that has the potential for providing just results . . . and which could leave judicial resources free to concentrate on those actions for which a trial is required." Jack H. Friedenthal, \textit{Cases on Summary Judgment: Has There Been a Material Change in Standards?}, 63 \textit{NOTRE DAME L. REV.} 770, 771 (1988). Granting a summary judgment motion for such purposes is equally applicable to the context of patent litigation because the necessity for holding a trial will be eliminated and efficiency goals will be effectuated.

\textsuperscript{156} See, e.g., Continuous Curve Contact Lenses, Inc. v. Rynco Scientific Corp., 680 F.2d 605, 606 (9th Cir. 1982) (stating that the U.S. Court of Appeals
claims contained issues of fact. Markman, in holding that patent claim construction is a pure question of law for the court, has dispelled any lingering doubts about whether patent claims are to be characterized as posing factual issues. Thus, trial judges today will be increasingly confronted with both summary judgment motions and partial summary judgment motions on the issues of infringement and claim construction. If a summary judgment motion is granted, the nonmoving party can then attempt to appeal the trial judge's decision to the Federal Circuit.

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[157] See, e.g., Continuous Curve Contact Lenses, 680 F.2d at 606 (citing Garter-Bare Co. v. Mungsingwear, Inc., 650 F.2d 975 (9th Cir. 1980), cert. denied, 469 U.S. 980 (1984)). See also Glazer & Rizzi, supra note 156, at 4 (stating that patent claims were thought to contain "factual underpinnings").


[159] See FED. R. CIV. P. 56(c).

[160] See FED. R. CIV. P. 56(d). Upon making a summary judgment motion, a party instead may be granted partial summary judgment if the court determines that there are still genuine issues of material fact and that it would be "practicable to . . . simplify the trial . . . [by issu[ing]] an order that specifies the facts that appear without substantial controversy." 10A CHARLES A. WRIGHT ET AL., FEDERAL PRACTICE AND PROCEDURE § 2737 (1983). Because such a ruling under Federal Rule 56(d) is on less than an entire case, it is not considered to be a "final and appealable judgment." Id. Moreover, for a party to be granted partial summary judgment, a party must motion a court for summary judgment on the entire case because "[t]here is no such thing as an independent motion under Rule 56(d)." Arado v. General Fire Extinguisher Corp., 626 F. Supp. 506, 509 (N.D. Ill. 1985).

[161] Elf Atochem N. Am., Inc. v. Libbey-Owens-Ford Co., 894 F. Supp. 844, 857 (D. Del. 1995) (observing that as a result of Markman, "parties will now routinely move for the early resolution of the claim construction issue" by making a summary judgment motion); Kenneth E. Krosin & Timothy R. DeWitt, En Banc Decisions of the Federal Circuit, in WINNING STRATEGIES IN PATENT LITIGATION, supra note 90, at 831, 848 (stating that the Markman decision has "encouraged parties to file summary judgment motions on the issue of claim construction" and, hopefully, trial judges will in turn grant the motions).

[162] Title 28 Interlocutory Decisions provides in pertinent part:
As earlier stated, the analysis of an infringement action entails two steps. Markman has held that the first step, the claim construction, is for a judge to decide as a matter of law, whereas the second step, the comparison between an allegedly infringing device and a patent's claims, remains within the province of a jury. Accordingly, to determine whether the court should grant summary judgment on the infringement issue or, alternatively, grant only partial summary judgment on the claim construction issue, it must carefully ascertain the nature and operation of the allegedly infringing device.

If the "nature [and operation] of the accused device is clear" and, thus, no factual dispute arises about it, a judge arguably has the obligation to dispose of the infringement issue through a summary judgment motion. In this situation, because

The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction ... of an appeal from a judgment in a civil action for patent infringement which would otherwise be appealable to the United States Court of Appeals for the Federal Circuit and is final except for an accounting.


See supra notes 38-43 and accompanying text (discussing the two steps and the corresponding role of a judge and jury).

See supra notes 39-41, 44-47 and accompanying text (noting that claim construction is within the sole province of a court and, as a result, the holding of a Markman Hearing has become a frequent procedural step in patent infringement litigation).

See supra notes 42-43 and accompanying text (stating that historical precedent and the Seventh Amendment support a jury's role in determining the ultimate question of literal infringement).

See infra notes 167-71 and accompanying text (dealing with factual disputes, and the lack of factual disputes, in the nature and operation of a defendant's device).


Id. (noting that when the "only issue is whether the scope of specific claim language includes the accused device, it is now more likely that a trial, and the accompanying expenses, may be avoided by summary judgment"); Charles W. Bradley, The Changing Role of Juries in Patent Litigation, in INTELLECTUAL PROPERTY LAW INSTITUTE 1995, at 113, 151 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 416, 1995) (discussing that when "there is no dispute as to the construction or operation of
there is no "genuine issue as to any material fact," a judge will only have remaining the construction of the patent's claims, which will be decided as a matter of law. Therefore, a judge's claim construction will be dispositive of whether infringement occurred because a reasonable jury could not find for the nonmoving party due to the uncontested nature of the accused device, and the judge must therefore grant the summary judgment motion.

On the other hand, a court may be faced with an allegedly infringing device whose nature and operation is not clearly understood by the court or stipulated to by the parties. A factual dispute will have arisen and the judge's claim construction will not be dispositive of the infringement issue. However, pursuant to the unequivocal Supreme Court holding in Markman, a judge arguably should grant a partial summary judgment motion in which the patent's claims are construed and have only the infringement question remain for a jury.

the accused device," a judge can dispose of a case through the granting of a summary judgment motion). See Krosin & DeWitt, supra note 161, at 848 (noting the often dispositive nature of claim construction and, thus, its role in deciding many cases in the summary judgment phase of a litigation).

169 Fed. R. Civ. P. 56(c).

170 See JOSEPH W. GLANNON, CIVIL PROCEDURE: EXAMPLES AND EXPLANATIONS 294 (2d ed. 1992) (explaining that the nonmoving party merely has to show that a reasonable jury could find in its favor). If the nonmoving party fails to show that a reasonable jury could find in its favor, then the judge must grant the summary judgment motion because "a verdict for [that party] could only reflect irrational decision-making." Id. "Summary judgment avoids this risk, as well as the delay and expense of trying unprovable cases." Id.

171 The Federal Rules mandate that "if on motion under [Federal Rule 56] judgment is not rendered upon the whole case . . . the court . . . shall if practicable ascertain what material facts exist without substantial controversy and what material facts are actually and in good faith controverted." Fed. R. Civ. P. 56(d).

If a Markman Hearing was not called sua sponte by the court before the summary judgment motion was made, the court will likely hold such a hearing upon its receipt. Once the claims are construed through the use of the hearing and the partial summary judgment is granted, the parties will be in an excellent posture to consider settlement. Glazer & Rizzi, supra note 156, at 4-5.

Even in those instances where construction of the claims is not dispositive as a matter of law of the entire case—with triable issues
After a patent's claims are construed, the dispositive nature of the ruling exists throughout the entire trial. Thus, most claim constructions by trial judges will be appealed by the aggrieved party at the end of a litigation. To circumvent the possibility of devoting judicial resources to litigation proceeding under improper claim construction, a court should exercise its discretion and freely grant interlocutory appeals. The prime time for granting this

remaining—the parties frequently will reach settlement upon the court's providing its interpretation of the patent. Glazer & Rizzi, supra note 156, at 4. The probability of turning away from litigation and into a settlement agreement will be greatly increased because both parties know what the jury will be told in the judge's instructions about the meaning of the patent's claims and, as a result, which party the claim construction favors. Glazer & Rizzi, supra note 156, at 5 (noting that after the claims are construed, it might not be worth the risk or cost to proceed with trial). Therefore, both parties can fairly predict their chances of success.

Title 28 Interlocutory Appeals states in pertinent part that a district court judge should grant an interlocutory order when the judge is of the opinion that such [interlocutory] order involves a controlling question of law as to which there is substantial ground for difference of opinion and that an immediate appeal . . . may materially advance the ultimate termination of the litigation . . . . 28 U.S.C. § 1292(b) (emphasis added). See Hoffman & Wasleff, supra note 3, at 20-21 (commenting briefly on the reasons why a court should grant interlocutory appeals, such as to guide discovery requests, depositions and improve trial strategies); Scheinfeld, supra note 99, at 9 (advocating the use of interlocutory appeals when factual disputes exist about the nature of the accused device).

Historically, interlocutory appeals have been rarely granted by the courts. "[U]nless the Federal Circuit sees its role differently from other appellate courts, it is unlikely to take such discretionary appeals as a matter of course." Hoffman & Wasleff, supra note 3, at 20. One commentator has enumerated four reasons why the granting of interlocutory appeals will probably not become common practice. Pegram, supra note 89, at 568. First, it is very unlikely that a trial judge will admit that "there is a substantial ground for difference of opinion" on a claim construction that he or she believes to be correct. Pegram, supra note 89, at 568 (citation omitted). Second, trial judges may not feel that an appeal will "materially advance the termination of the litigation." Pegram, supra note 89, at 568 (citation omitted). Third, by granting an interlocutory appeal, any attempts
appeal would be immediately following a Markman Hearing so that the Federal Circuit can review the claim construction de novo and the litigation at the district court can thereafter proceed via the proper construction. This will give both parties their "two full bites at the apple" early in the litigation.

CONCLUSION

*Markman* is a landmark decision. The procedural consequences of the decision are numerous and will continue to evolve. However, once these positive procedural shock waves are appreciated and exploited fully, the result will be a more efficient and expeditious patent litigation system. *Markman* has set the stage for district courts to more actively implement such policy concerns. The Federal Circuit, however, must be willing to increase its docket activity earlier in any given litigation through interlocutory appeals in order to derive the full benefits of the Markman Hearing.

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To settle might be delayed until the appeal has concluded. Pegram, *supra* note 89, at 568. Fourth, "the Court of Appeals is not required to accept such an appeal." Pegram, *supra* note 89, at 568.

However, *Markman* presents the courts with an excellent opportunity to start implementing this powerful procedural tool due to its ability to prevent litigation under the wrong claim construction. In addition, the district courts have become alert to the possible increased use of interlocutory appeals. *See, e.g.*, Elf Atochem N. Am., Inc. v. Libbey-Owens-Ford Co., 894 F. Supp. 844, 857 (D. Del. 1995) (noting that litigants will seek an "immediate interlocutory appeal [following a Markman Hearing] to avoid the possibility of dual trials should the Federal Circuit reverse the trial court's claim construction"). By granting these appeals, courts would be taking a direct policy stand in promoting efficiency. As a result, the Federal Circuit's docket will undeniably increase. This, however, should not be the underlying factor for denying the appeals. Rather, the interlocutory appeal should be viewed as a means of hastening an inevitable appeal by the party whom the claim was originally construed against.

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\(^{174}\) Re & Jennings, *supra* note 90, at 900.