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I. INTRODUCTION

The United States patent system serves three important objectives: (1) to reward inventors for their efforts in developing innovative technology; (2) to encourage these inventors and others to continue to advance technology; and (3) to disclose to the public the scope of the invention so that the public is put on notice of that which is no longer in the public domain. The last objective is the principle of fair notice. Often, achieving the most economically advantageous balance of these objectives creates tension between the patentee, who is the inventor who has secured a patent, and the public. On one side are the patentees who must be rewarded for their ingenuity and investment in order to encourage them to create and disclose inventions. Construing the patentee's property rights too narrowly turns the patent into a "hollow and useless thing" and reduces the incentive to create and disclose. On the other side of the balance is the public, which is wary of improving upon a patented invention when faced with the threat of trespassing onto someone else's intellectual property and becoming liable for infringement. Construing patents too broadly in favor of patentees increases the threat to the public and discourages economically beneficial competitive efforts. Therefore, a tipping of the balance too far in either direction is harmful to the promotion of "Science and useful Arts" which is the ultimate goal of the patent

2. See id. at 373-74.
This Comment explores how the Supreme Court and the United States Court of Appeals for the Federal Circuit have interpreted the United States patent statute, which is codified in title 35 of the U.S.C., to accomplish the proper balance between these competing interests. Section II explains in greater detail the tension between the patentee and the principle of fair notice and how this tension relates to defining the proper scope of a patent. Section III reviews three cases in which the Federal Circuit and the Supreme Court shaped concepts which help to define the scope of a patent. These cases involve both statutory and common law, with each decision motivated by the principle of fair notice. Section IV points out Congress's seemingly ambivalent stance on the issue of fair notice as reflected by the Patent Marking and Notice Statute. This section also reviews a Federal Circuit case in which the court strictly interpreted this Patent Marking and Notice Statute contrary to congressional intent. This Comment then concludes that the courts' increased reliance on the principle of fair notice has tipped the balance in disfavor of the patentee and that further tipping in this direction by the courts is inconsistent with congressional intent, which is threatening to the nation's economic welfare. Finally, this Comment will suggest that to achieve continued technological and economic leadership in the United States, the courts must maintain the balance between the interests of both the patentee and the public when attempting to solve future problems that arise in patent litigation.

II. THE TENSION IN DEFINING PROPER PATENT SCOPE

The United States economy is dependent upon market forces. As such, incentives to private persons to produce needed goods and services are necessary. The Constitution granted Congress the power to create laws to "promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."
From this grant, the United States patent system has evolved to provide incentives to produce technological advancement, without which our economy would flounder.\(^6\)

The scope of a patent defines its economic significance.\(^7\) The scope of a patent is decided every day by the Patent and Trademark Office (PTO) when it determines the admissibility of claims and by the courts when they determine infringement liability.\(^8\) Despite the important economic effects of defining patent scope, many of the considerations that define it are discretionary.\(^9\)

Recently, the courts have made several decisions defining the scope narrowly, the economic effects of which may be significant.\(^{20}\) Recent judicial decisions affecting patent scope are consistent with the historic development of other patent laws—they have developed without consideration of economic impact.\(^{21}\) However, patent laws exist to improve the economy, and it is suggested that future changes to the patent system should involve greater consideration of economic efficiency.\(^{22}\) Therefore, an issue exists as to whether recent decisions defining the scope narrowly are consistent with economic considerations. According to at least one economist, they are not.\(^{23}\) He proposes that one effect of the new role of economics in developing patent law will be less concern over the harm to public notice that results from broader patent rights.\(^{24}\) In other words, when patent laws are framed in terms of greater economic efficiency, greater preservation of the rights of patentees will result.\(^{25}\) Examining this issue using a property rights model will help the reader to

\[\text{\textsuperscript{16.} See Schlicher, supra note 13, at 12.}\]
\[\text{\textsuperscript{17.} See Merges & Nelson, supra note 3, at 839.}\]
\[\text{\textsuperscript{18.} See id. at 840-41.}\]
\[\text{\textsuperscript{19.} See id. at 839-40.}\]
\[\text{\textsuperscript{21.} See Schlicher, supra note 13, at 12.}\]
\[\text{\textsuperscript{22.} See id. at 12-13.}\]
\[\text{\textsuperscript{23.} See id. at 14, 18.}\]
\[\text{\textsuperscript{25.} See Schlicher, supra note 13, at 18.}\]
better understand these ideas.26

A. The Property Rights Model

Using the property rights model, intellectual property may be conceptualized much like real property, except that theoretically there is an infinite amount of it. Patentees are much like explorers, finding and staking out new claims27 and investing energy and money in their exploration.28 Once a patentee makes a discovery, the patentee stakes a claim by disclosing it to the public and is rewarded with a twenty year monopoly over the property.29 During the twenty years, nobody else can trespass onto the patentee’s intellectual property without the patentee’s permission.30 Permission is usually achieved by negotiating a licensing contract with the patentee.31 Whoever trespasses without a license from the patentee runs the risk of being sued for infringement which can have serious consequences.32 However, after twenty years the public is free to exploit that intellectual property.33 This twenty year limit is necessary to put a cap on the amount of resources the patentee receives as a reward for her invention.34 The problem the public faces is knowing where the boundaries of the patentee’s intellectual property lie during the

26. See Richard A. Posner, Economic Analysis of Law § 3, at 36-37 (3d ed. 1986) (using the property rights model to explain how the patent system and economics relate). There are many other useful models of patent law; however, the author feels that the property rights model is most easily conceptualized and best serves the purposes of this Comment. See generally Nature and Function of Patent, supra note 24 (discussing the prospect and reward theories of patent law and analogizing patents to mining claims); Merges & Nelson, supra note 3 (discussing Kitch’s prospect model as well as others and whether broad patent scope is beneficial economically); Schlicher, supra note 13 (discussing the property, monopoly, and quid quo pro theories of patent law and predicting that economic analysis may improve patent laws).

27. See generally Nature of Function of Patent, supra note 24 (discussing the prospect and reward theories of patent law and analogizing patents to mining claims).

28. See Barger, supra note 1, at 373 (stating that one of the objectives of the patent privilege is to “reward[] the inventor for his skill and labor in conceiving and perfecting his invention”).

29. See 35 U.S.C.A. § 154(a) (2) (West Supp. 1998); Barger, supra note 1, at 373-74.

30. See id.


32. See id.


34. See Bonito Boats, 489 U.S. at 147-48; Posner, supra note 26, at 36. Under the reward theory of patent law, a perpetual term for patents would seem to be appropriate. See Nature and Function of Patent, supra note 24, at 284-85. However, using his prospect theory, Kitch suggests that a patent should only be a reward for the value of being first. See id. Because eventually somebody else would have discovered the technology if the patentee had not discovered it and patented it first, the value of being first is not significant enough to warrant a perpetual monopoly over the technology as a reward. See id. In essence, the patent is not a reward to the patentee in exchange for the technology, but rather a reward for being the first to discover the technology. See id.
twenty year monopoly, so it can be sure not to step over the line. In many respects, it is a harsh world for the unwary, for the law allows, and even encourages, the public to get as close to the line as it can without stepping over. The right to design around a patent, or in other words to make a product similar to the patentee’s but just different enough not to infringe, is absolute. Thus, if an inventor can succeed in doing so without infringing someone else’s patent, the PTO rewards that inventor with an "improvement" patent. This often means cheaper products for consumers, which in turn furthers the "important public interest in permitting full and free competition in the use of ideas." But explorer beware—liability for infringement requires no intent to infringe. One who accidentally trespasses onto claimed patent territory is as liable as the willful pirate. The primary demarcation of the boundaries of a patentee’s property is the claims section of the patent. In theory, the public can quickly turn to the claims section of the patent and know exactly what is off limits. The claims can be best conceptualized as a verbal fence around the patentee’s property. The patent statute requires that the claims, which are usually one or two very long sentences, "particularly point[] out and distinctly


37. See Bonito Boats, 489 U.S. at 146 ("Imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy."); Vitronics, 90 F.3d at 1583 ("Competitors are entitled to . . . design around the claimed invention.").


39. See Lear, Inc. v. Adkins, 395 U.S. 653, 670 (1969); see also State Indus., Inc. v. A.O. Smith Corp., 751 F.2d 1226, 1236 (Fed. Cir. 1985) (stating that designing around "is the stuff of which competition is made and is supposed to benefit the consumer"); Merges & Nelson, supra note 3, at 875-77 ("[O]verly broad rights will preempt too many competitive development efforts. . . . Given the way humans and organizations think and behave, we believe we are much better off with considerable rivalry in invention than with too little. . . . [W]here technical advance has been rapid there almost always has been considerable rivalry.").


41. See Hilton Davis Chem. Co. v. Warner-Jenkinson Co., Inc. 62 F.3d 1512, 1523 (Fed. Cir. 1995), rev’d, 520 U.S. 17 (1997). However, bad faith or willfulness by the infringer may increase the award of damages if a finding of infringement is found. See 35 U.S.C. §§ 284-85 (1988); Hilton Davis, 62 F.3d at 1523.

42. See Markman v. Westview Instruments, 52 F.3d 967, 979 (Fed. Cir. 1995), aff’d, 517 U.S. 370 (1996).

43. See id.

44. See POSNER, supra note 26, at 37; Merges & Nelson, supra note 3, at 845.
claim[] the subject matter which the applicant regards as his invention."\(^{45}\) To further guard against innocent infringement by a member of the public, each patent must also contain a specification which "shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same."\(^{46}\) If language were not so inherently ambiguous, the public ought to feel fairly well protected by these provisions, for a clear public record would exist to define the scope of the patentee's property and the world would know not to tread beyond the line.\(^{47}\) Moreover, the economic gains of clear patent scope would be wonderful:\(^{48}\) inventors could embark on scientific explorations without fear of infringement accusations, and economic inefficiency created by duplicative technological investments would be reduced.\(^{49}\) But language is ambiguous, and patentees are prone to mistakes of omission and overbreadth when staking their claims.\(^{50}\) The reality is that a large debate has arisen over whether to err on the side of the patentee or the accused infringer when deciding where the patentee's intellectual property ends.\(^{51}\) In other words, what is the proper scope of the patent?

The following section reviews the courts' recent attempts to address this troubling question, and three cases stand out. Unfortunately, in all three cases, the court relied on the principle of fair notice to reach a decision unfavorable to the position of the patentee.

III. CASES DEFINING PATENT SCOPE THROUGH RELIANCE ON THE PRINCIPLE OF FAIR NOTICE

A. Markman v. Westview Instruments:\(^{52}\) Guidance on Claim Construction Just Where It Was Needed Least

If one imagines that the public is floating above a field of intellectual property, then claim construction can be thought of as the process of focusing binoculars in order to see exactly where the verbal fence (claims) of the patentee's property is. In other words, claim construction is fine tuning the words of the claims. In an

\(^{45}\) See 35 U.S.C. § 112 (1994). For an example of a portion of a claim, see infra note 94.

\(^{46}\) See 35 U.S.C. § 112.


\(^{48}\) See id.

\(^{49}\) See Merges & Nelson, supra note 3, at 870-71.

\(^{50}\) See Platt, supra note 47, at 1031-32.

\(^{51}\) See Janicke, supra note 35, at 155.

\(^{52}\) 52 F.3d 967 (Fed. Cir. 1995), aff'd, 517 U.S. 370 (1996).
infringement suit, the patentee will always want the claims to be construed broadly, so that the patentee’s patent encompasses as much as possible. If the court construes the claims broadly enough, the defendant’s actions will fall within the line of infringement. On the other hand, the accused infringer will always argue the opposite—that the claims should be construed very narrowly, so that the accused infringer’s product does not fall within the claims. In other words, the accused infringer’s product is not the same as the product disclosed by the claims of the plaintiff’s patent. In Markman, the court set forth a strict approach to this process.

1. Claim Construction Is a Matter of Law

The court in Markman made it clear that claim construction is a matter of law. The judge decides the meaning of the claims and then instructs the jury of this meaning. The jury is left with only the tasks of comparing the judicial construction of the claims to the infringing device and deciding if there is overlap. In Markman, the court described two rationales in concluding that claim construction is a matter of law. First, it adopted the view that a patent is analogous to a fully integrated written instrument because the patent must contain a description of such specificity as to enable someone to make and use the invention. Because it is well established that interpretation and construction of written instruments is exclusively a matter for the judge, the court reasoned that necessarily construction of patent claims is too. Secondly, the court reasoned that leaving claim construction to judges would lead to more consistent construction, allowing the public to better predict whether their actions would fall within the scope of the patentee’s claims.

53. See Athletic Alternatives, Inc. v. Prince Mfg., Inc., 73 F.3d 1573, 1580 (Fed. Cir. 1996); see also infra discussion accompanying notes 92-99.
54. See Athletic Alternatives, 73 F.3d at 1580-81; see also infra discussion accompanying notes 92-99.
57. See id.
58. See id.
59. See id.
60. See id.
61. See id.
62. See id. (citing Levy v. Gadsby, 7 U.S. 180, 186 (1805)).
63. See id.
64. See id. at 978-79.
Further, it is only fair (and statutorily required) that competitors be able to ascertain to a reasonable degree the scope of the patentee's right to exclude. Moreover, competitors should be able to rest assured, if infringement litigation occurs, that a judge, trained in the law, will similarly analyze the text of the patent and its associated public record and apply the established rules of construction, and in that way arrive at the true and consistent scope of the patent owner's rights to be given legal effect.65

The court also reasoned that confining claim construction to the court would benefit patentees as well.66 If claim construction were a factual issue, the jury's interpretation of the claims would carry greater weight on appeal and subject the patentee to the danger of being bound forever by a "false interpretation." With its new status as a matter of law, claim construction became reviewable by a de novo standard of review on appeal, making it easier for the patentee to escape the consequences of false interpretation by the lower court.67 Unfortunately, the pendulum swings both ways. A recent in-depth study on post-Markman claim construction showed a high rate of reversal based on judges' interpretations, and it is questionable whether the Markman decision has in fact brought sunnier conditions for patentees.68

2. The Hierarchy of Terms

After deciding that claim construction is a matter of law, the court gave very specific instructions to judges regarding the information they may use in doing so.70 A judge should look to the claims first.71 If the proper scope of the patent is not clear from the claims alone, the judge may next look to the specification for clarification.72 If the judge is still unsure as to the proper construction, the judge may then look to the prosecution history of the patent.73 These three sources of information are all contained within the patent and are all readily available to the public.74 Any evidence outside of these three categories, including dictionaries, treatises, and the opinions of experts and the inventors, is extrinsic to the patent, is not readily available to the public, and therefore may only be used by the judge.

65. Id. (citations omitted).
66. See id. at 979.
67. See id.
68. See id.
70. See Markman, 52 F.3d at 979-83.
71. See id. at 979 (noting that expert testimony, including evidence of how those skilled in the art would interpret the claims, may be used).
72. See id.
73. See id. at 980.
74. See id. at 979-80.
performing claim construction to cure her own unfamiliarity with the language of the patent.\textsuperscript{75} The judge may never use such extrinsic evidence to contradict the meaning of the claim suggested by evidence higher in the hierarchy (the claims, the specification, and the prosecution history) or to clarify ambiguity in the claim terminology.\textsuperscript{76} Likewise, extrinsic evidence is due no deference from the court.\textsuperscript{77}

3. Impact of the \textit{Markman} Decision

Of the numerous cases reversed based on claim construction since the \textit{Markman} decision, a majority of the cases were based on a failure of the district court judge to properly weigh the evidence at trial.\textsuperscript{78} In other words, there seems to be an inability of some district court judges to follow the \textit{Markman} instructions.\textsuperscript{79} Perhaps this is because determining patent scope is inherently conceptual and therefore not amenable to rigid rules of construction.\textsuperscript{80} It is also likely that the court’s instructions regarding extrinsic evidence are difficult to apply. Extrinsic evidence can not be used to "clarify[] ambiguity in claim terminology,"\textsuperscript{81} but it can be used "for the court’s understanding of the patent."\textsuperscript{82} This is a fuzzy line at best, and it is not difficult to sympathize with a judge’s confusion. Furthermore, the court’s opinion that "there should be no ‘ambiguity’ in claim language to one of ordinary skill in the art that would require resort to [extrinsic] evidence” is misdirected.\textsuperscript{83} Ambiguity in claim language is precisely the cause of patent infringement litigation.\textsuperscript{84} If the line around the patentee’s intellectual property was

\textsuperscript{75} See \textit{id.} at 980-81, 986. “This evidence may be helpful to explain scientific principles, the meaning of technical terms, and terms of art that appear in the patent and prosecution history.” \textit{id.} at 980.

\textsuperscript{76} See \textit{id.} at 983, 986.

\textsuperscript{77} See \textit{id.} at 983.

\textsuperscript{78} This testimony about construction, however, amounts to no more than legal opinion—it is precisely the process of construction that the court must undertake. Thus, as to these types of opinions, 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. \textit{id.} (citing Becton Dickinson & Co. v. C.R. Bard, Inc., 922 F.2d 792, 797 (Fed. Cir. 1990)).

\textsuperscript{79} See Kahrle & Herrmann, \textit{supra} note 69, at 4; \textit{supra} text accompanying note 69.

\textsuperscript{80} See Kahrle & Herrmann, \textit{supra} note 69, at 4.

\textsuperscript{81} See \textit{Markman}, 52 F.3d at 986; \textit{supra} text accompanying notes 75-76.

\textsuperscript{82} See \textit{Markman}, 52 F.3d at 981; \textit{supra} text accompanying notes 75-76.

\textsuperscript{83} See \textit{Markman}, 52 F.3d at 986; Kahrle & Herrmann, \textit{supra} note 69, at 123-24.

\textsuperscript{84} See Kahrle & Herrmann, \textit{supra} note 69, at 123-24.
crystal clear, presumably the nonwillful infringer would not have crossed it. In other words, Markman provides a framework in which to construe unambiguous claims, while the real need is for a means of consistently construing ambiguous claims because these are the claims at issue in litigation. Perhaps if the court had contemplated the actual interests and needs surrounding the problem instead of simply relying the principle of fair notice, the ultimate goal, a clearer public record, would now be the reality.

B. Athletic Alternatives, Inc. v. Prince Manufacturing, Inc.: What to Do in Case of Ambiguity

Athletic Alternatives, handed down in the wake of the Markman decision, attempted to pick up where Markman left off. Athletic Alternatives attempted to answer the following question: What should a judge do if, after following all of the Markman instructions, the judge still finds ambiguity in the language of the claims? The answer sounds like a coin toss; although all of the admissible evidence on claim construction has been weighed by the judge, the judge can still decide either for the patentee or for the accused infringer. As fate, or rather the justice system, would have it, the patentee lost again. The principle of fair notice prevailed.

The dispute in Athletic Alternatives involved tennis rackets, and each party played its role predictably. The patentee, Athletic Alternatives, Inc. (Athletic Alternatives), urged a broader definition of its patent claims. The patentee argued that the claims required only two offset distances between certain strings of the

85. See id.
86. See id.
87. 73 F.3d 1573 (Fed. Cir. 1996).
88. See id. at 1581.
89. See id. at 1580-81.
90. See id. at 1581.
91. See id.
92. The history of the dispute is complex and unnecessary to an understanding of the holding. See id. at 1574-77.
93. By this, the author refers to the typical arguments made by the patentee and the accused infringer where the scope of the patent is at issue. See discussion accompanying supra notes 53-54.
94. See Athletic Alternatives, 73 F.3d at 1578. The actual section of the claim in issue read as follows:

[W]here at least said first ends of at least said first plurality of string segments are secured to said frame at a distance \(d_i\), where \(d_i\) is the perpendicular distance between the central plane and the location on said frame to which the ith string end is secured, i designating the order of the ith string end in the sequence of adjacent first string ends of said first plurality of string segments, the distance \(d_i\) being alternately measured in opposite directions from said central plane, and where said distance \(d_i\) varies between minimum distances for the first and last string ends in said sequence and a maximum distance for a string end between said first and last string ends in said sequence.

Id. at 1577.
patented racket, a minimum and a maximum.\textsuperscript{95} On the other hand, the accused infringer, Prince Manufacturing, Inc. (Prince), urged the narrower meaning--that the claims required at least three offset distances: a minimum, a maximum, and one or more intermediate values.\textsuperscript{96} If the court had adopted Prince's suggested construction requiring three distances, Prince would have clearly prevailed because Prince's accused product only had two offset distances.\textsuperscript{97} If Athletic Alternative's patent required three distances and Prince's product only had two, the jury would have found that the two products were different and that Prince did not literally infringe Athletic Alternative's patent.\textsuperscript{98} However, if the court adopted Athletic Alternative's suggested broad construction requiring only two values, Prince clearly and literally infringed.\textsuperscript{99}

After looking at the claim language, the specification, and the prosecution history, as instructed in Markman,\textsuperscript{100} the court was still faced with two equally plausible constructions of the claim language--two values or three values.\textsuperscript{101} Rather than flipping a coin, the court looked to the patentee's claim drafting burden set forth in 35 U.S.C. § 112\textsuperscript{102} to resolve the dilemma.\textsuperscript{103} Relying on the fair notice purpose of this provision, the court created a cutting presumption against the patentee and stated the following: \textsuperscript{104} "Where there is an equal choice between a broader and a narrower meaning of a claim, . . . we consider the notice function of the claim to be best served by adopting the narrower meaning."\textsuperscript{105} Using its newest tool of construction, the court gave Athletic Alternative's claim the narrower meaning suggested by Prince and required three offset distances between strings.\textsuperscript{106} Using the narrow construction, a finding of literal infringement by the jury was impossible.\textsuperscript{107}

\textsuperscript{95} See id. at 1578-79.

\textsuperscript{96} See id. at 1579.

\textsuperscript{97} See id. at 1577.

\textsuperscript{98} See id. at 1577.

\textsuperscript{99} See id. at 1578.

\textsuperscript{100} See supra text accompanying notes 71-77.

\textsuperscript{101} See Athletic Alternatives, 73 F.3d at 1581.

\textsuperscript{102} See supra notes 43-51 and accompanying text (explaining how the claims define the scope of the patentee's intellectual property, as required by statute).

\textsuperscript{103} See Athletic Alternatives, 73 F.3d at 1581.

\textsuperscript{104} See id.

\textsuperscript{105} Id.

\textsuperscript{106} See id.

\textsuperscript{107} The court affirmed the district court's finding of nonliteral infringement without sending it to the jury. See id.
1. Impact of the Presumption Created in Athletic Alternatives

Instructing all courts to adopt a narrow meaning when faced with ambiguity shrinks the patentee’s reward and reduces her incentive to invent.\(^\text{108}\) The Athletic Alternatives presumption means that whenever the meaning of the language of the claim cannot be discerned from the public record, the patentee’s intellectual property is shrunk to whatever size her opponent, the accused infringer, convinces the court it ought to be.\(^\text{109}\) It is hard to imagine when the methodology prescribed in Markman and Athletic Alternatives will ever work to the patentee’s advantage.\(^\text{110}\) In short, Markman provides no guidance for construing ambiguous claims, and Athletic Alternatives says that if a claim is ambiguous, the accused infringer wins.\(^\text{111}\)

Both Markman and Athletic Alternatives were decided based on the principle of fair notice. Whenever a decision about the proper scope of a patent is made in furtherance of the principle of fair notice, in essence, the decision maker is indicating a need for added protection of the patentee’s competitors.\(^\text{112}\) In decisions like Athletic Alternatives, the court is taking steps to ensure that competitors know where the boundaries of patents lie so that they do not overstep them when investing in similar research. However, it is questionable whether this protection is really needed. Judge Learned Hand suggested in 1945 that competitors generally know exactly where the boundaries of a patent lie, stating that “[i]t is impossible to suppose that anyone who really wished to respect the patent would have any difficulty in identifying what the claim covered.”\(^\text{113}\) Today this may ring even truer than it did then.\(^\text{114}\) Sophisticated corporations with sophisticated patent attorneys are often the parties to patent infringement litigation.\(^\text{115}\) By seeking the advice of an experienced patent attorney, a corporation wishing to invest in technological advancement can likely gain an adequate appraisal of its likelihood of infringement.\(^\text{116}\) With this information, the corporation is able to make an informed decision about whether the investment would be more wisely spent on a different venture.\(^\text{117}\) By encouraging corporations to make such informed decisions, wasteful duplicative efforts are reduced and corporations are not dissuaded from investing in technological research. Considerations such as these provide much more prudent guidance for the future of patent law than simplistic reliance on the principle of fair

\(^{109}\) See Athletic Alternatives, 73 F.3d at 1581.
\(^{110}\) See supra text accompanying notes 55-107.
\(^{111}\) See supra text accompanying notes 55-107.
\(^{112}\) See Kahrl & Herrmann, supra note 69, at 97.
\(^{113}\) See Musher Found. v. Alba Trading Co., 150 F.2d 885, 889 (2d Cir. 1945).
\(^{114}\) See Kahrl & Herrmann, supra note 69, at 97.
\(^{115}\) See id.
\(^{116}\) See id.
\(^{117}\) See id.
notice.

C. Warner-Jenkinson Co. v. Hilton Davis Chemical Co.: Settling the Debate Over the Doctrine of Equivalents in an Unsettling Way

1. The Debate Over the Doctrine of Equivalents

Literal infringement is found through the two step process which was clarified in Markman. First, the judge decides what technology the patent encompasses through the process of claim construction. Second, the jury decides if the claim's scope, as defined by the judge, includes the accused infringer's device. If the jury determines that it does, then literal infringement is found.

The Supreme Court recognized many years ago that if literal infringement was the patentee's only protection, the patent would soon become a "hollow and useless thing." The patentee's competitor could make a slight change to the patentee's product which is ineffectual to its function or commercial utility and because the competitor's device is not literally the same as the patentee's device, the competitor would not be liable for literal infringement. If literal infringement was the only theory available to the patentee, the competitor would always be able to avoid liability by making subtle and useless changes even though his device is the same as the patentee's in substance. Soon the patentee would be completely discouraged from disclosing his inventions, and instead he would hide his inventions in secrecy, creating an atmosphere hostile to technological advancement.

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118. 520 U.S. 17 (1997).
120. See id.; supra text accompanying notes 56-82.
121. See Markman, 52 F.3d at 978; see also SRI Int'l v. Matsushita Elec. Corp., 775 F.2d 1107, 1125 (Fed. Cir. 1985) (en banc) (holding that infringement is a question of fact).
122. See Markman, 52 F.3d at 978-79.
123. See Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 607 (1950). The Court also stated the following:

Outright and forthright duplication is a dull and very rare type of infringement. To prohibit no other would place the inventor at the mercy of verbalism and would be subordinating substance to form. It would deprive him of the benefit of his invention and would foster concealment rather than disclosure of inventions.

Id.
124. See id.
125. See id.
126. See Nature and Function of Patent, supra note 24, at 288 (discussing how an economy with a patent system is superior to an economy based on trade secrets).
The doctrine of equivalents evolved in response to this threat. The doctrine of equivalents allows a finding of infringement when the invention disclosed in the plaintiff's patent is, in substance, the same as the accused device or process. For example, in Athletic Alternatives, if the jury found that Prince's racket having two offset distances between strings was, in substance, the same as Athletic Alternative's disclosed racket having three offset distances between strings as determined by the judge, Prince would have been liable for infringement under the doctrine of equivalents, even though the two rackets were not literally the same.

How does this tie in with the discussion of the principle of fair notice? Conceptually, the doctrine of equivalents blurs the line around the patentee's intellectual property, and this is why proponents of the principle of fair notice oppose it. Opponents of the doctrine of equivalents feel that it leaves the scope of patents unclear, rendering it impossible for the public to know the boundaries of the claimed intellectual property. In turn, potential researchers are discouraged from making improvements because of the fear of innocently infringing a patent. Achieving the proper balance between too literal interpretation of patents, which provides little protection to the patentee, and too liberal interpretation of patents, which defeats the fair notice purpose, has proved troublesome. Either way, technological advance is hindered. The effect of this debate has been inconsistent application of the doctrine of equivalents from the time of its inception, some time shortly after the Patent Act of 1790, until very recently. Warner-Jenkinson is the most recent battle. Three significant holdings were handed down by the Supreme Court in this case. The facts of the case, the opinions of both the Supreme Court and the Federal Circuit, as well as the role of the principle of fair notice in the decisions are discussed below.

2. Setting the Stage–The Facts of Hilton Davis

Both Hilton Davis Chemical (Hilton Davis) and Warner-Jenkinson Co. (Warner-Jenkinson) were involved in the business of manufacturing dyes used in
foods and cosmetics. Hilton Davis owned a patent for "ultrafiltration" which was an efficient process for removing impurities from the dyes it manufactured. The process involved filtering the dyes through a membrane at certain pressures and pH levels. The Hilton Davis ultrafiltration patent claimed a process which worked at pH levels between 6.0 and 9.0. Soon after Hilton Davis's patent issued in 1985, Warner-Jenkinson independently developed a similar process which operated at a pH of 5.0. Warner-Jenkinson commercially used its process without knowledge of Hilton Davis's patent until, in 1991, Hilton Davis learned of Warner-Jenkinson's use of the ultrafiltration process and sued the company for infringement.

Because Hilton Davis's patent clearly claimed a process which worked at pH levels between 6.0 and 9.0 and Warner-Jenkinson's process operated at a pH level of 5.0, Hilton Davis conceded there was no literal infringement. Therefore, the issue was whether Warner-Jenkinson's process infringed Hilton Davis's patent under the doctrine of equivalents. At the district court level, the jury found that Warner-Jenkinson infringed under the doctrine of equivalents. An injunction then issued, permanently prohibiting Warner-Jenkinson from using an ultrafiltration process below a pH level of 9.0 and a pressure of 500 p.s.i.g. Warner-Jenkinson appealed to the Federal Circuit where the en banc court affirmed the finding of nonliteral infringement. On appeal once again, the Supreme Court reversed on the basis of prosecution history estoppel and remanded the case.

3. The Federal Circuit Opinion

a. "Substantiality of differences" is the test for the Doctrine of Equivalents

138. See id. at 21-22.
139. See id. at 22.
140. See id.
141. See id. at 23.
142. See id.
143. See id.
144. See id.
145. See id.
146. See id.
148. See Warner-Jenkinson, 520 U.S. at 40-41.
Courts often state the doctrine of equivalents test in terms of the tripartite or the function-way-result test.\textsuperscript{149} Using this approach, "one device is an infringement of another if it performs substantially the same function in substantially the same way to obtain the same result" as the patented device.\textsuperscript{150} In \textit{Hilton Davis} the Federal Circuit explicitly held that while the function-way-result test often suffices to establish or disestablish equivalency, the true test for equivalency is whether there is a "substantiality of the differences between the claimed and accused products or processes, assessed according to an objective standard."\textsuperscript{151} The court stated that the function-way-result test is only a factor in the assessment of equivalency and other factors may be relevant in the determination.\textsuperscript{152} For example, the Federal Circuit stated that "[a]n important factor" that may be considered by the fact finder "is whether persons reasonably skilled in the art would have known of the interchangeability of an ingredient not contained in the patent with one that was."\textsuperscript{153} The insubstantial differences test for the doctrine of equivalents may be consistent with the goals of achieving the ideal balance between the interests of the patentee and that of public notice. Although the Federal Circuit's opinion in many places indicates an inclination towards a formalized approach, the insubstantial difference test is at least less formalized than the test ultimately mandated by the Supreme Court, on appeal of the case, and therefore allows for a more conceptual finding of equivalency. One commentator suggested that a more conceptual approach, while seemingly difficult to apply, would in fact lead to the most consistent application of the doctrine of equivalents.\textsuperscript{154} A more consistent application of the doctrine under a conceptual approach would lead to a more defined scope of patents, furthering public notice without invariably robbing the patentees of their reward.\textsuperscript{155} A more conceptualized approach would lead to greater consistency in defining patent scope by allowing consideration of factors recently given little weight, but which make sense intuitively. Whether the patent in issue is a "pioneer" in its field

\textsuperscript{149} See \textit{Hilton Davis}, 62 F.3d at 1518.
\textsuperscript{150} See \textit{Sanitary Refrigerator Co. v. Winters}, 280 U.S. 30, 42 (1929) (quoting Machine Co. v. Murphy, 97 U.S. 120, 125 (1877)).
\textsuperscript{151} See \textit{Hilton Davis}, 62 F.3d at 1518.
\textsuperscript{152} See \textit{id.} at 1519.
\textsuperscript{154} See \textit{Lai}, \textit{supra} note 80, at 2034.
\textsuperscript{155} See Merges & Nelson, \textit{supra} note 3, at 848.

To restrict [a patentee] to the . . . form disclosed . . . would be a poor way to stimulate invention, and particularly to encourage early disclosure. To demand such restriction is merely to state a policy against broad protection for pioneer inventions, a policy both shortsighted and unsound from the standpoint of promoting progress in the useful arts, the constitutional purpose of the patent laws.

\textit{Id.} (alterations in original) (quoting \textit{In re Hogan}, 559 F.2d 595, 606 (C.C.P.A. 1977)); \textit{Lai}, \textit{supra} note 80, at 2040-41.

104
or merely an improvement in a crowded field is one such factor.\textsuperscript{156} Pioneer patents are granted to the explorer who makes a breakthrough into previously unexplored territory whereas improvement patents are given for "a secondary invention consisting of a combination of old ingredients which produce new and useful results."\textsuperscript{157} Pioneer patents inherently involve a greater amount of risk and innovation, and in return the patentee deserves a greater amount of protection.\textsuperscript{158} Therefore, the first step using the conceptual approach to the doctrine of equivalents is to determine whether the patent is a pioneer or an improvement. In making a determination of equivalency, one can always be guided by the general principle that the doctrine of equivalents should be applied more liberally for a pioneer patent than it is for an improvement patent. Because a conceptual approach redirects the focus away from mere debate over verbalism by a jury and towards factors readily available and even intuitive to the public, approaching equivalency in this way would provide more consistent and meaningful results.\textsuperscript{159} As a result, the approach minimizes the unpredictability the doctrine of equivalents currently causes, while benefitting both the public and the patentee because of a clearer public record.\textsuperscript{160}

\paragraph{b. The doctrine of equivalents is an issue of fact}

Prior to the \textit{Hilton Davis} decision, the doctrine of equivalents was often referred to as "equitable" because its purpose was to prevent the unfairness of depriving the patentee of effective protection of her patent.\textsuperscript{161} However, the use of this label sprung debate over whether equivalency should be determined by the judge or the jury.\textsuperscript{162} Looking to the origin of the doctrine, which was in the courts of law and not equity, the court concluded that the term "equitable" should be given its broader meaning and "general fairness" be considered; the court also firmly established that the doctrine of equivalents is a matter of fact to be determined by the jury in a jury trial and by the judge in a bench trial.\textsuperscript{163}

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\textsuperscript{156} See Merges & Nelson, \textit{supra} note 3, at 848; Lai, \textit{supra} note 80, at 2040-41.
\textsuperscript{157} See Schuler, \textit{supra} note 36, at 474 (quoting \textit{Graver Tank}, 339 U.S. at 608).
\textsuperscript{158} See \textit{Hilton Davis}, 62 F.3d at 1532 (Newman, J., concurring); Merges & Nelson, \textit{supra} note 3, at 848.
\textsuperscript{159} See Lai, \textit{supra} note 80, at 2059.
\textsuperscript{160} See \textit{id.}
\textsuperscript{161} See \textit{Hilton Davis}, 62 F.3d at 1521.
\textsuperscript{162} See \textit{id.}
\end{flushleft}
c. The judge must always apply the doctrine of equivalents when there is no literal infringement

The Federal Circuit had very little to say in reaching its third conclusion, that the choice to apply the doctrine of equivalents is not discretionary with the judge according to the circumstances of the case.164 Whenever literal infringement is not found, the judge must automatically submit the issue of nonliteral infringement by the doctrine of equivalents to the jury.165 The court felt that this result necessarily flowed from its decision that the doctrine of equivalents is to be determined by the trier of fact.166

Applying the principles set forth in its decision, the Federal Circuit found that the district court properly sent the issue of nonliteral infringement to the jury with appropriate instructions.167 Because evidence presented at trial supported the jury’s finding of infringement, the Federal Circuit affirmed.168

4. The Supreme Court Opinion

a. The validity of the doctrine of equivalents is confirmed

In its appeal to the Supreme Court, Warner-Jenkinson began the battle by trying to convince the Court that the doctrine of equivalents is no longer valid.169 First, Warner-Jenkinson argued that the doctrine is inconsistent with the modern patent statute because (1) it contradicts the requirement that the patent specifically claim the invention under 35 U.S.C. § 112, (2) it circumvents the reissue process set forth in 35 U.S.C. § 251-52, and (3) it is inconsistent with the role of the PTO to set forth the scope of patents through patent prosecution.170 The Court responded by cursorily pointing out that all of these arguments were made and rejected by the Court in Graver Tank & Mfg. Co. v. Linde Air Prods. Co.171 in 1950 and that the minor changes to the Patent Act in 1952 did not provide a basis for overruling that decision.172

Warner-Jenkinson’s second line of argument was that Congress implicitly rejected the common law doctrine of equivalents by placing an equivalents provision

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164. See Hilton Davis, 62 F.3d at 1522.
165. See id.
166. See id.
167. See id. at 1523.
168. See id. at 1524.
170. See id. at 25.
172. See Warner-Jenkinson, 520 U.S. at 25.
in 35 U.S.C. § 112, paragraph 6, in the Patent Act of 1952. To this the Court responded that § 112, paragraph 6 was a limited congressional action intended only as a "targeted cure to a specific problem." In short, the Court flatly refused to rely on what it called Warner-Jenkinson's "dubious negative inference" to obliterate the long line of precedent that supports the doctrine of equivalents. At least one thing was made clear—the doctrine of equivalents lives.

b. The doctrine of equivalents must be applied to each individual element of the claim, not to the claim as a whole

While the Court affirmed that the doctrine of equivalents lives, the question of how deflated the doctrine would be by the end of the battle remained. The doctrine survived the Federal Circuit in fairly good health considering the rather liberal insubstantial differences approach suggested by the court and the decision that application of the doctrine is automatic upon a finding of nonliteral infringement. However, the doctrine did not escape the Supreme Court without receiving a few damaging blows.

With respect to the Federal Circuit's holding that the correct test for the doctrine of equivalents is whether there is an insubstantiality of differences between the accused and the patented devices or process, superficially the Supreme Court seemed rather ambivalent.

In our view, the particular linguistic framework used is less important than whether the test is probative of the essential inquiry: Does the accused product or process contain elements identical or equivalent to each claimed element of the patented invention? Different linguistic frameworks may be more suitable to different cases,

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173. See id. at 27. 35 U.S.C. § 112, ¶ 6 reads as follows:
An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.
See id. (quoting 35 U.S.C. § 112, ¶ 6 (1952)). For a discussion of defining patent scope by function, see generally Janicke, supra note 35.
175. See id. The Court also stated that "Congress can legislate the doctrine of equivalents out of existence any time it chooses. The various policy arguments now made by both sides are thus best addressed to Congress, not this Court." Id.
176. See Janice M. Mueller, Crafting Patents for the Twenty-First Century: Maximize Patent Strength and Avoid Prosecution History Estoppel in a Post-Markman/Hilton Davis World, 79 J. PAT. & TRADEMARK OFF. SOC'Y 499, 506 ("The Supreme Court's Hilton Davis decision confirms that the doctrine of equivalents is very much alive, although just how well remains to be seen.").
177. See discussion supra Parts III.C.3.c, III.C.4.a, III.C.4.b.
depending on their particular facts. . . . [W]e see no purpose in going further and micromanaging the Federal Circuit's particular word-choice for analyzing equivalence . . . and we leave such refinement to that court's sound judgment. . . .

Although the words of the Court perhaps ring of ambivalency, the Court changed the doctrine of equivalents by greatly formalizing the approach. Reasoning that the doctrine of equivalents posed a threat to the public-notice function of claims when broadly applied, the Court mandated that the "doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole." Each patent consists of one or more claims. A claim is usually a very long sentence. However, inside each claim are several smaller and more manageable elements. Using the Supreme Court's approach, each element of the patentee's claim must have an equivalent in the accused device or process in order to make a finding of equivalency. Using the old approach, the patented and accused devices or processes only needed to be equivalent as a whole. While the Supreme Court declined to address the Federal Circuit's finding that the doctrine of equivalents is an issue of fact for the jury, it is suggested that the Court's silence indicates agreement. Therefore, the Court's new rule means that it is the jury who will compare the words of each and every element of the patentee's claims to the accused device.

The Supreme Court's adoption of the all-elements rule for the doctrine of equivalents is ironic when compared to the language used in Markman. In Markman, the Federal Circuit opined at the ineptitude of juries to construe the language of the claims and the danger of forever binding patentees with false misinterpretations if juries were to do so. However, the Supreme Court unanimously affirmed the Federal Circuit's decision in Markman that claim

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178. Warner-Jenkinson, 520 U.S. at 40 (emphasis added).
179. See Lai, supra note 80, at 2060 ("The Supreme Court's test represents an undue formalization that limits the application of the doctrine in a manner similar to the Federal Circuit's approach.").
180. See Warner-Jenkinson, 520 U.S. at 29.
182. See Warner-Jenkinson, 520 U.S. at 29.
183. See id.
184. See id. at 35.
185. See id. at 38-39.
186. Because resolution of whether, or how much of, the application of the doctrine of equivalents can be resolved by the court is not necessary for us to answer the question presented, we decline to take it up. The Federal Circuit held that it was for the jury to decide whether the accused process was equivalent to the claimed process. There was ample support in our prior cases for that holding.
188. Compare supra text accompanying notes 64-69.
construction is exclusively a matter for the court.  By formalizing the approach to the doctrine of equivalents to the degree that it did, the Supreme Court in Warner-Jenkinson subverted patentees to almost the exact dangers the Court purportedly aimed to protect them from in Markman.

c. A rebuttable presumption of prosecution history estoppel operates against the patentee in the absence of an explanation for an amendment

Wisely reluctant to assume that the Court would abandon the doctrine of equivalents completely, Warner-Jenkinson next asserted that prosecution history estoppel estopped Hilton Davis from asserting that its invention was equivalent to any process that operated below the lower pH limit of 6.0 in Hilton Davis’s claims. If Warner-Jenkinson could win this argument, it would win the case since its process operated at a pH of 5.0. Prosecution history estoppel provides a limit on the doctrine of equivalents. Generally, prosecution history estoppel prevents the patentee from claiming that her invention is equivalent to intellectual property that she gave up by making a narrowing amendment to her patent during prosecution. In this case, Hilton Davis amended its patent by placing a lower pH level of 6.0 in its claims, but the reason for this amendment was unclear. Warner-Jenkinson argued that Hilton Davis’s amendment should have the effect of estopping Hilton Davis from claiming that its process was equivalent to any process that operated at a pH below 6.0, regardless of Hilton Davis’s reason for the amendment. This is the broadest interpretation of the rule. However, stronger precedent indicated that prosecution history estoppel would only bar a finding of equivalents when the limiting amendment was made for the purpose of gaining validity of the patent. For example, if the amendment was made to distinguish the patentee’s invention from some other already patented invention, the patentee would

189. See Markman, 517 U.S. at 372.
190. See id. at 388-89 (stating that “[t]he judge, from his training and discipline, is more likely to give proper interpretation to such instruments than a jury”). The Court also stated that “the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court.” See id. at 390.
192. See id. at 23, 30.
193. See Mueller, supra note 176, at 501; Lai, supra note 80, at 2057.
194. See Lai, supra note 80, at 2057.
195. See Warner-Jenkinson, 520 U.S. at 32.
196. See id. at 30.
197. See Lai, supra note 80, at 2057.
198. See Warner-Jenkinson, 520 U.S. at 30-32.
be estopped from claiming the disclaimed property. But if the amendment was made for a reason other than to gain validity of the patent, the doctrine of equivalents could still be applied to the disclaimed property. If the Court adopted the rule from precedent, the case would turn on whether Hilton Davis made the amendment to avoid the prior art, in which case it would be estopped from asserting that its process was equivalent to Warner-Jenkinson’s process, or for some other reason, in which Hilton Davis would still have a chance at proving equivalency.

The Court declined to adopt the broad interpretation of prosecution history estoppel suggested by Warner-Jenkinson. Precedent indicated that prosecution history estoppel applied only when an amendment was made for a limited number of reasons. Therefore, Hilton Davis could still win under the doctrine of equivalents if its patent revealed a reason for the amendment other than to avoid the prior art. Unfortunately for Hilton Davis, nothing in its patent indicated its reason for the lower pH limit of 6.0. The following issue now faced the Court: What should they do when nothing in the patent record reveals the reason for an amendment? Once again, the Court relied on the public notice function of the claims to resolve the dilemma and stated the following:

Mindful that claims do indeed serve both a definitional and a notice function, we think the better rule is to place the burden on the patent holder to establish the reason for an amendment . . . . The court then would decide whether that reason is sufficient to overcome prosecution history estoppel as a bar to application of the doctrine of equivalents . . . . Where no explanation is established, however, the court should presume that the [Patent and Trademark Office] had a substantial reason related to patentability for including the limiting element added by amendment. In those circumstances, prosecution history estoppel would bar the application of the doctrine of equivalents as to that element. The presumption we have described . . . gives proper deference to the role of claims in defining invention and providing public notice, and to the primacy of the [Patent and Trademark Office] in ensuring that the claims allowed cover only subject matter that is properly patentable . . . .

Because Hilton Davis’s patent did not disclose a reason for its amendment, the newly created presumption that the amendment was made to gain validity of the patent took effect. Prosecution history estoppel barred application of the doctrine

199. See id. at 30-31; Lai, supra note 80, at 2057.
200. See Warner-Jenkinson, 520 U.S. at 31-33.
201. See id. at 31-34.
202. See id. at 30-31.
203. See id. at 30-32.
204. See id. at 32-34.
205. See id. at 32.
206. See id. at 33.
207. See id.
208. Id. at 33-34 (emphasis added).
209. See id. at 33.
of equivalents. Because application of the doctrine of equivalents was improper, the Court reversed and remanded the jury finding of nonliteral infringement. Warner-Jenkinson at last prevailed.

d. Impact of the presumption of prosecution history estoppel

The Court’s intent in creating the presumption of estoppel was to further the principle of fair notice. The fault in the Court’s rationale is that the principle of fair notice is secondary to the objective of promoting the useful arts. The Court left the patentee out of its equation when "giv[ing] proper deference to the role of claims." Furthermore, it is questionable whether the presumption actually serves the stated end of preserving the public notice function of claims. The applicability of the doctrine of equivalents and therefore, the scope of the patent, is made to teeter on inquiry into the patent examiner’s reasons for requiring an amendment. Because these intentions are not always readily apparent, a reliable and economically beneficial public record is not created.

The presumption created in Warner-Jenkinson also places a greater claim drafting burden on the patentee. Prior to the Markman and Warner-Jenkinson decisions, the patentee’s primary objective during patent prosecution was to gain allowance of the claims from the patent examiner. Therefore, patent applications were written for a technically trained audience. Now, however, the patent prosecutor has a new audience. Markman established that the judge will determine the meaning of the claims by performing claim construction, and Warner-Jenkinson established that the judge will also be the interpreter of the prosecution history. Warner-Jenkinson also made it clear that an omission from the

210. See id.
211. See id. at 41.
212. See id.
213. See id. at 33.
214. See U.S. CONST. art 1, § 8, cl. 8.; Barger, supra note 1, at 374.
216. See Lai, supra note 80, at 2058-59.
217. See discussion supra Part III.C.4.c.
218. See Lai, supra note 80, at 2058-59.
220. See id. at 502.
221. See id.
prosecution history can work severely to the patentee’s disadvantage.\textsuperscript{224} Coupling these holdings together, the patentee’s primary objective in patent prosecution is now to write for the non-technically trained judge in order to create an instrument which will effectively defend the patentee in an infringement litigation.\textsuperscript{225} Adding salt to the wound, there is also an indication that many federal judges disfavor patent cases and resent the additional responsibilities that the recent Supreme Court and Federal Circuit decisions have placed upon them.\textsuperscript{226} In sum, patent prosecutors must now attempt to write meticulous yet reader-friendly patents in order to create an instrument which will adequately protect the patentee.\textsuperscript{227}

IV. CONGRESS’S STANCE ON THE PRINCIPLE OF FAIR NOTICE AS REFLECTED BY THE PATENT MARKING AND NOTICE STATUTE

Heretofore, the focus of this Comment has been the recent role of the principle of fair notice in defining patent scope.\textsuperscript{228} The discussion now shifts to a related topic—the role of fair notice in defining the rights of the patentee to enforce the patent. Doing so reveals that the courts’ increased reliance on the principle of fair notice is inconsistent with Congress’s intent to give limited protection against innocent infringement.\textsuperscript{229}

The Patent Marking and Notice Statute\textsuperscript{230} is designed "to give patentees the proper incentive to mark their products and thus place the world on notice of the existence of the patent."\textsuperscript{231} Generally, the statute requires that a patentee who produces her invention gives notice to the public of her invention by marking her product with the word "patent" or "pat." together with the number of the patent.\textsuperscript{232} The statute bars the patentee from receiving damages for the infringement that occurs before the patentee complies with the statute either by marking or giving actual notice to the infringer.\textsuperscript{233} Upon first glance, one would think that Congress must have felt strongly about advancing the principle of fair notice. However, a closer look reveals inconsistencies within the statute which indicate Congress’s true intent to limit the protections given against innocent infringement.

A. Inconsistencies in the Patent Marking and Notice Statute Which Indicate

\textsuperscript{224} See id.; Mueller, supra note 176, at 509.
\textsuperscript{225} See Mueller, supra note 176, at 503.
\textsuperscript{226} See id. (citing George E. Badenoch, Proceeding in the Gray Area After Markman, 2 No. 9 INTELL. PROP. STRATEGIST 1, 4 (June, 1996)).
\textsuperscript{227} See id. at 503-13.
\textsuperscript{228} See discussion supra Part III.
\textsuperscript{229} See infra text accompanying notes 234-295.
\textsuperscript{232} See 35 U.S.C. § 287(a).
\textsuperscript{233} See id.
1. Only Some Patentees Need Comply With the Statute

The first part of 35 U.S.C. § 287 reads as follows: "Patentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States . . ." 234 Generally speaking, a patent may be for a device or for a method. 235 A patent for a device, also referred to as an apparatus, encompasses tangible intellectual property. 236 Occasionally, this type of patent results in the production of the patented device. Patentees who produce a patented device are required to mark the product to receive damages for infringement, but patentees who never produce the patented device or license someone else to do so need not comply. 237 A patent for a method or process, on the other hand, encompasses a series of steps to accomplish a change in something. 238 It is well established that items which embody only method claims need not be marked. 239 Furthermore, apparatus and method claims sometimes overlap, making it difficult for patentees to determine when they are required to mark. 240 Adding confusion, the Federal Circuit held that where a patent contains both method and apparatus claims, a patentee who has failed to mark the products of the apparatus claims can collect damages for infringement of the method claims, but only if the patentee does not assert infringement of any of the apparatus claims in the complaint. 241 The patentee receives no recovery if the complaint asserts both method and apparatus claims. 242 As one might suspect, this interpretation of the statute creates anomalous results. 243 The unwary patentee who asserts infringement of an apparatus claim may inadvertently forego damages for infringement of the method claims. 244 Even if no confusion were created by the

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234. Id.
236. See Voelzke, supra note 235, at 345 n.7.
238. See Voelzke, supra note 235, at 345 n.7.
239. See id.
240. See id. at 325-28.
242. See Voelzke, supra note 235, at 331.
243. See id. at 317, 334.
244. See id. at 333-34.
distinction between device and method claims made in 35 U.S.C. § 287, there really is no way to reconcile the differing treatment of patentees of device claims, patentees of method claims, and patentees who chose not to produce their patented inventions.245

2. Liability for Damages Is Not Dependent on the Infringer’s Actual Notice of the Patent

The next phrase of the statute reads as follows:

Patentees . . . may give notice to the public . . . either by fixing thereon the word “patent” or the abbreviation “pat.,” together with the number of the patent, or when, from the character of the article, this cannot be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice.246

The statute creates the assumption that by marking, the patentee places the world on notice of her patent.247 However, there is no stringent requirement that the marking be in a place where it can be seen by the public.248 In one case, the court held that marking the interior wall of the product was sufficient to satisfy the statute where this was the only practical place for the mark.249 If Congress wanted to give expansive protection against innocent infringement, it could have written the statute to require actual notice of infringement as a prerequisite to liability.250 But, because Congress declined to expand the level of protection against innocent infringement, it is indicative of Congress’s intent to limit the protections against innocent infringement.

3. Injunctive Relief Is Not Dependent on the Patentee’s Compliance

The final section of the statute reads as follows:

In the event of failure so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice.251

245. See id. at 328.
250. See 35 U.S.C § 287(a).
251. Id.
The language used here refers only to the award of monetary damages.\textsuperscript{252} The court may issue an injunction upon a finding of infringement regardless of whether the patentee complied with the marking statute.\textsuperscript{253} Often enjoiner of the infringing activities is the best relief for the patentee. Furthermore, the consequences of an injunction may be severe for the infringer:

In many instances, an injunction is, in effect, a corporate death penalty, leading to shutdown of facilities, layoff of employees, and a negative impact to consumers and other third parties. The damages to a corporation due to an injunction can be severe, even if the corporation wins on appeal.\textsuperscript{254}

Because an injunction is an equitable remedy awarded only in light of fairness, it is unlikely that a court would issue a severe injunction against a defendant who infringed without notice of the patent.\textsuperscript{255} However, in light of the possibility of harsh consequences, the glaring omission of a limitation on injunctive relief from the marking statute is suggestive of Congress’s lenient stance on the issue of the principle of fair notice.

B. Amsted Industries Inc. v. Buckeye Steel Castings Co.:\textsuperscript{256} \textit{Toughening Up the Patent Marking and Notice Statute}

In \textit{Amsted}, the Federal Circuit tightened up the patent marking and notice statute in two ways. First, the court construed the language "for or under" to mean that the patentee is responsible for ensuring that all licensees, even implicit licensees, comply with the marking requirements.\textsuperscript{257} Second, the court interpreted the language "notified of the infringement" to mean that a patentee who has failed to mark must make an affirmative act to notify the infringer of "the infringement" and not merely of the patent's existence or ownership in order for damages to begin accruing.\textsuperscript{258} Both of these interpretations place additional responsibility on the patentee and are inconsistent with the intent of Congress to limit the protections

\textsuperscript{252} See id.
\textsuperscript{254} Id.
\textsuperscript{255} Id. at 545.
\textsuperscript{256} 24 F.3d 178 (Fed. Cir. 1994).
\textsuperscript{257} See id. at 185.
\textsuperscript{258} See id. at 186-87.
given against innocent infringement.

1. The Patentee Must Ensure that All Licensees, Including Implicit Licensees, Comply With the Marking Statute

In Amsted, the jury found the defendant, Buckeye Steel Castings Company (Buckeye), liable for willful infringement of Amsted’s patent for a railroad car underframe. Willful infringement occurs when the infringer knows of the existence of the patent and ignores it or makes an uningenious attempt to obtain an opinion of noninfringement from an attorney. Willful infringement in essence is deliberate infringement and is subject to greater damages than innocent infringement which occurs without intent. Because there was evidence to support the jury’s findings that the defendant, Buckeye, knew that the opinion of noninfringement from its attorney was not based on a good faith belief, the Federal Circuit affirmed the jury’s finding of willful infringement.

The court next addressed Amsted’s cross-appeal of the district court’s finding that damages were limited by Amsted’s failure to comply with the marking statute, 35 U.S.C. § 287. The facts of the case are rather confusing. Amsted’s patent was for a railroad car underframe. Amsted only produced one component of the patented underframe, the center plate. Amsted sold the center plates to its customers with instructions for incorporating the center plate into the patented underframe, but did not mark the center plates. Amsted argued that because it never produced the actual patented device, the complete underframe, nor explicitly authorized any of its customers to produce the completed underframes, it was not required to mark the component center plates. In other words, the patented device was never produced “for or under” Amsted, and therefore, Amsted argued, it was not required to comply with the statute. In response to this argument, the court turned to the principle of fair notice and stated: "In view of the purpose of section 287, 'to encourage the patentee to give notice to the public of the patent,' there is no reason why section 287 should only apply to express licensees and not to implied licensees." Accordingly, the court found that Amsted’s sale of the component

259. See id. at 181.
260. See McKeon, supra note 247, at 437.
263. See id. at 184-85.
264. See id. at 180. The patent in dispute is referred to as the ’269 patent throughout the opinion.
265. See id.
266. See id. at 185.
267. See id.
268. See id.
269. Id. (citations omitted) (quoting American Med. Sys., Inc. v. Medical Eng’g. Corp., 6 F.3d 1523, 1538 (1993)).
part center plates constituted an "implicit license" to its customers and was sufficient to bring it within the "for or under" language of the statute. Therefore, Amsted's failure to mark the center plates constituted a failure to comply with the statute. As a result, Amsted's damages were limited to the time after which it notified Buckeye of the infringement.

2. Impact of the Requirement that Implicit Licensees Be Marked

The court's decision to hold patentees liable for the actions of "implicit licensees" is supported by neither precedent nor the principle of fair notice. Prior to Amsted, no precedent existed which indicated that marking a component part of the product is necessary to satisfy § 287. Furthermore, if Amsted had marked the center plates that it sold, it was unlikely that many members of the public would have seen the marking because the plates were only components of the underframe of railroad cars. Throughout its opinion, the Federal Circuit seems to have interpreted the word "public" to mean "potential copyist." Making this substitution helps make sense of the court's conclusion. One would expect a potential copyist to check the underframe of a train to see if the center plate was patented. Indeed, a potential copyist would be justified in relying on the absence of the marking. However, Congress drafted § 287 to protect against innocent infringement, rather than potential copyists. Conditioning the patentee's protection upon the actions of the patentee's customers clearly goes beyond the intended scope of § 287 and further reduces the incentives to create and disclose ingenuity.

3. When the Patentee Does Not Mark, Damages Are Precluded Until the Time that the Patentee Gives "Notice of Infringement"

270. See id.
271. See id.
272. See id.
274. See id.
275. See id. at 799.
276. See id.
277. See id.
278. See id.
279. See McKeon, supra note 247, at 464.
Because Amsted failed to put the required mark, it was precluded from receiving damages until the time that it gave notice to Buckeye of its infringement. Therefore, notice pursuant to the marking statute was at issue. Amsted argued that a letter sent to Buckeye in 1986 constituted such notice. Buckeye argued that the 1986 letter was not sufficient to satisfy the statute because it did not actually accuse Buckeye of infringing and therefore notice did not occur until 1989 when Amsted sent a second letter containing an actual accusation. Finding *Dunlap v. Schofield* to be controlling precedent, the Federal Circuit held that notice pursuant to § 287 requires "the affirmative communication of a specific charge of infringement by a specific accused product or device." Notice of the patent's existence or ownership is not sufficient. Because the 1986 letter contained no "affirmative communication of a charge of infringement," the court found that notice pursuant to the statute was not given until 1989. Thus, Buckeye's argument prevailed.

4. Impact of the "Affirmative Act" Rule

The interpretation of the notice requirement of § 287 requiring an "affirmative act" is contrary to the intent of Congress and the basic tenet of patent law, which is to encourage the promotion of technology. The affirmative act rule completely

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281. See id.
282. See id. at 185-86. The 1986 letter, in pertinent part, read as follows:
   This is to advise you that Amsted . . . has acquired a number of properties [from Dresser]
   . . . including [the '269 patent] . . . .
   It is our understanding that Dresser Industries actively sought to enforce its patent . . . and those rights have been heretofore respected in the industry. AMSTED-ASF expects to continue to enforce those rights which it has acquired and similarly expects our industry to respect its patents.
   Accordingly, you should acquaint yourself with the ['269 patent] and refrain from supplying or offering to supply component parts which would infringe or contribute to the infringement of the patent[ ]. You should not offer to supply items which are copies of or designed to replace our LOW PROFILE center plate.

283. See id. at 186 (alterations in original).
284. 152 U.S. 244 (1894). A legitimate question exists as to whether *Dunlap* is binding precedent mandating the decision in *Amsted.* See McKeon, supra note 247, at 446. Courts have repeatedly misquoted *Dunlap* to require an "affirmative act." See id. However, the *Dunlap* court actually stated that notice is an "affirmative fact, and is something to be done by [the patentee]." See Dunlap, 152 U.S. at 248 (emphasis added). The *Dunlap* court never addressed the specific issue in *Amsted.* See id.; McKeon, supra note 247, at 446. It is possible that the *Amsted* court impermissibly extended the holding in *Dunlap* as a result of the misquotation and unduly limited the notification requirement. See McKeon, supra note 247, at 446.
285. See Amsted, 24 F.3d at 187.
286. See id.
287. See id.
288. See id. at 187-88.
ignores the infringer’s actions and knowledge.\textsuperscript{289} This allows an infringer to blatantly appropriate the intellectual property of another while escaping liability.\textsuperscript{290} No case illustrates this injustice of this implication better than \textit{Amsted} itself. Buckeye escaped damages for five years of willful infringement of Amsted’s patent in bad faith, resulting in a loss to Amsted of millions of dollars.\textsuperscript{291} Allowing this type of misappropriation of intellectual property strips the patentee of the incentive to create.\textsuperscript{292} Because the cost of imitating is less risky and costly than the cost of creating new developments, the patentee’s competitors can quickly undercut their price.\textsuperscript{293} In effect, pirating of technology is encouraged.\textsuperscript{294} A patent system in which acts of bad faith like Buckeye’s are given free reign is stifling to advancements in technology.\textsuperscript{295}

V. SUMMARY

In each of the four cases discussed above, the Supreme Court or the Federal Circuit attempted to ameliorate a problem by making a simplistic reliance on the principle of fair notice but only succeeded in exacerbating it. Furthermore, failing to look at all of the considerations involved almost invariably worked to the detriment of the patentee in these cases. In \textit{Markman}, the Federal Circuit set forth a framework for claim construction which failed to address the need for consistent and predictable construction of ambiguous claims.\textsuperscript{296} The result is a high rate of reversal based on claim construction.\textsuperscript{297} In \textit{Athletic Alternatives}, the court attempted to address the lack of direction for construing ambiguous claims left by \textit{Markman} by creating a presumption that ambiguous claims will always be construed narrowly.\textsuperscript{298} The result is a consistent stripping of the patentee’s intellectual property rights and rewards for disclosure.\textsuperscript{299} In \textit{Warner-Jenkinson}, the Supreme Court adopted the element by element approach to the doctrine of equivalents, which will likely result in the continued inconsistent application of the doctrine.\textsuperscript{300}

\textsuperscript{289} See McKeon, supra note 247, at 460.
\textsuperscript{290} See id. at 464-65.
\textsuperscript{291} See Amsted, 24 F.3d at 185; see also McKeon, supra note 247, at 460.
\textsuperscript{292} See McKeon, supra note 247, at 462.
\textsuperscript{293} See id. at 461-62.
\textsuperscript{294} See id. at 462.
\textsuperscript{295} See discussion supra Part IV.B.
\textsuperscript{296} See supra text accompanying notes 52-86.
\textsuperscript{297} See supra text accompanying notes 68, 78-86.
\textsuperscript{298} See supra text accompanying notes 87-107.
\textsuperscript{299} See supra text accompanying notes 108-117.
\textsuperscript{300} See supra text accompanying notes 152-61.
Secondly, in *Warner-Jenkinson*, the Court placed a greater claim drafting burden on the patentee by adopting the presumption of prosecution history estoppel. Finally, in *Amsted*, the Federal Circuit ignored congressional intent by making the requirements of 35 U.S.C. § 287 more stringent than was intended. The result of the *Amsted* decision is to allow unparalleled misappropriation of patent rights without redress for the patentee.

VI. PRUDENT GUIDANCE FOR THE FUTURE OF PATENT LAW

The four cases discussed in this Comment make it clear that the Supreme Court and the Federal Circuit have been imprudent in relying on the principle of fair notice to guide them in their recent decisions. The courts should instead seek to achieve the balance of competing interests and aim for the greatest economic gain. These competing interests are twofold. One interest is to preserve the incentive to create and disclose which is accomplished by protecting the patentee’s intellectual property rights given by the patent. The second interest is the public benefit of free competition, which can be achieved by providing clear patent scope. Providing clear patent scope enables the public to discern which intellectual property is protected by patent and which is available for development so that the threat of innocent infringement does not inhibit improvement. However, when the courts seek to define patent scope more clearly, they must take care that the rules they create do not invariably define the patent to the disadvantage of the patentee and reduce the incentive to create and disclose. The courts must also control the threat of misappropriation by competitors. This threat discourages innovators from disclosing their inventions, inhibiting free competition. Keeping the interest of both the patentee and the public in mind is the best guidance for continued technological and economic leadership in the United States.

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301. See supra text accompanying notes 176-227.
302. See supra text accompanying notes 256-88.
303. See supra text accompanying notes 289-95.