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An Encroaching Exercise in State Taxation: Orvis Company v. Tax Appeals Tribunal

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Expansion, Compression and Relief: An Analysis of the Jury's Role in Patent Infringement Cases Employing the Doctrine of Equivalents

INTRODUCTION

Issued by the Patent and Trademark Office,[1] a patent is a grant of a right to exclude others for a period of twenty years from making, selling, or using an invention.[2] Patent infringement occurs whenever one lacking authority makes, uses or sells a patented invention within the United States during the life of the patent.[3] Determining when an invention has in fact infringed on a patent has proved to be a rather formidable task for the courts.[4] Historically, two different forms of infringement have emerged: literal infringement and infringement under the doctrine of equivalents. Literal infringement is established only if each and every one of the elements of the alleged infringing invention is exactly the same as those of the patented device.[5] In contrast, infringement under the doctrine of equivalents occurs when two devices perform "substantially the same function in substantially the same way to obtain substantially the same result."[6] The cru-

1. This office is a federal agency existing under the auspices and control of the Department of Commerce and headed by the Commissioner of Patents and Trademarks. 35 U.S.C. §§ 1, 3 (1988).

2. 35 U.S.C. § 154 (1988 & Supp. I 1995).

3. 35 U.S.C. § 271(a) (1988).

4. *See* Read Corp. v. Portec, Inc., 970 F.2d 816, 828 (Fed. Cir. 1992); Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1537 (Fed. Cir. 1995), *cert. granted*, 64 U.S.L.W. 3570 (U.S. Feb. 26, 1996) (No. 95-728); Brian E. Lewis, *Expanding the Use of Hypothetical Analysis When Evaluating Patent Infringement Under the Doctrine of Equivalents*, 16 U. Puget Sound L. Rev. 1409 (1993).

5. Rudolph P. Hofmann, Jr., *The Doctrine of Equivalents: Twelve Years of Federal Circuit Precedent Still Leaves Practitioners Wondering*, 20 Wm. Mitchell L. Rev. 1033, 1034 (1994).

6. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608 (1950).

cial determination of whether or not infringement has occurred either literally or under the doctrine of equivalents is often made by a jury. In order for a jury to do this, a two step process is usually employed. The first step is to determine the meaning and scope of the patent, and the second step is to compare the properly construed claims to the device accused of infringing.[7] Juries are compelled to make these determinations when a litigant asserts her constitutional rights.

The Seventh Amendment provides that in suits "where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved . . . ."[8] This right to a jury trial has long been established in patent cases including those involving the doctrine of equivalents.[9] But the proper role of the jury in patent infringement litigation involving the doctrine of equivalents has been a focal point of confusing and mixed signals from the Federal Circuit.[10] One area in particular is after a jury verdict has been rendered. Approximately one year after its inception, the Federal Circuit decided *Connell v. Sears, Roebuck & Co.*,[11] where a jury

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7. Read Corp. v. Portec, Inc., 970 F.2d 816, 821 (Fed. Cir. 1992).

8. U.S. Const. amend. VII.

9. *See* Root v. Railway Co., 105 U.S. 189 (1881). Most patent infringement cases are initially brought in United States District Courts by virtue of their subject matter and complexity. Litigants seeking to appeal decisions of the district courts generally have one course to follow. This arises because currently only one federal appeals court hears patent infringement cases from all of the district courts.

10. Created by the Federal Courts Improvement Act of 1982, the Court of Appeals for the Federal Circuit ("Federal Circuit") has exclusive jurisdiction of appeals relating to, among other topical areas, all patent cases. Pub. L. No. 97-164, 126, 96 Stat. 25, 37; 28 U.S.C. § 1295(a) (1988). In practice, the Federal Circuit is actually the court of last resort for most patent litigants since the United States Supreme Court does not usually grant certiorari to patent cases. Hofmann, *supra* note 5, at 1038. *But see* Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995), *aff'd*, 116 S. Ct. 1384 (1996) and Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512 (Fed.Cir. 1995), *cert. granted,* 64 U.S.L.W. 3570 (U.S. Feb. 26, 1996) (No. 95-728) which both were granted certiorari by the Supreme Court and are discussed in Part III. Thus, the decisions of this tribunal are regularly watched with interest. *See, e.g.*, McGill Inc. v. John Zink Co., 736 F.2d 666 (Fed. Cir. 1984) (jury found patent valid but not infringed upon); Texas Instruments, Inc. v. United States Int'l Trade Comm'n, 805 F.2d 1558 (Fed. Cir. 1986) (noninfringement of patent found by jury); London v. Carson Pirie Scott & Co., 946 F.2d 1534 (Fed. Cir. 1991) (summary judgment granted due to noninfringement); Read Corp. v. Portec, Inc., 970 F.2d 816 (Fed. Cir. 1992) (verdict of infringement found by jury but overturned due to insufficient evidence).

11. 722 F.2d 1542 (Fed. Cir. 1983).

verdict was reversed on a motion for judgment notwithstanding the verdict (JMOL).[12] Although not an equivalents case, *Connell* helps demonstrate the Federal Circuit's power with regard to reversing jury verdicts. After a seven day trial, the jury returned a verdict claiming that the patent at issue was valid and that the defendant's invention infringed.[13] Pursuant to Rule 50,[14] the court later entered a final judgment reversing the jury's finding of validity, and stating that as a matter of law there was no infringement.[15] Last year, the Federal Circuit decided two important patent cases, one involving the doctrine of equivalents in particular,[16] and the other involving patent infringement in general.[17] Both of these cases have continued the uncertainty of the jury's proper role in cases decided under the doctrine of equivalents.

This Comment analyzes the current role of the jury in patent infringement cases under the doctrine of equivalents and proposes a solution to enhance that role. Part I provides background on the doctrine of equivalents including its purpose in the law of patents and also provides the modern test under the doctrine. Part II examines the jury's role in selected Supreme Court cases that predate the creation of the Federal Circuit. Part III traces key decisions of the Federal Circuit handed down since its inception fourteen years ago, and concentrates on the compression and expansion of the jury's role. Additionally, Part III compares and contrasts *Markman v. Westview Instruments, Inc.*,[18] and *Hilton Davis*

12. Since this case was decided, the Federal Rules of Civil Procedure now collectively refer to judgment notwithstanding the verdict, alternative motions for a new trial, and conditional rulings for directed verdicts as judgments as a matter of law (JMOL). *See* Fed. R. Civ. P. 50.

13. *Connell*, 722 F.2d at 1545.

14. Fed. R. Civ. P. 50 states, in part: "If during a trial by jury a party has been fully heard on an issue and there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue, the court may determine the issue against that party and may grant a motion for judgment as a matter of law against that party with respect to a claim or defense that cannot under the controlling law be maintained or defeated without a favorable motion on that issue." Fed. R. Civ. P. 50(a).

15. *Connell*, 722 F.2d at 1545.

16. Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512 (Fed. Cir. 1995), *cert. granted*, 64 U.S.L.W. 3570 (U.S. Feb. 26, 1996) (No. 95-728).

17. Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995), *aff'd*, 116 S. Ct. 1384 (1996).

18. *Id.*

Chemical Co. v. Warner-Jenkinson Co.,[19] two of the most recent decisions of the Federal Circuit, and then examines *Markman* which was reviewed by the Supreme Court in April of 1996. Finally, Part IV of this Comment concludes with a proposed statutory framework which would help both jurors and judges decide cases involving the doctrine of equivalents.

PART I. THE ORIGINS OF THE DOCTRINE OF EQUIVALENTS

> Merely to change the form of a machine is the work of a constructor, not of an inventor; such a change cannot be deemed an invention . . . . [Only after one] . . . change[s] the form of an existing machine, and by means of such change . . . introduce[s] and employ[s] other mechanical principles or natural powers, or as it is termed, a new mode of operation, [to] thus attain a new and useful result, is the [creation then thus the] subject of a patent.[20]

Delivering the opinion of the Court, Mr. Justice Curtis first alluded to the doctrine of equivalents in the 1853 case of *Winans v. Denmead*.[21] At issue was a patent for the design of an iron railroad car used for the transportation of coal and containing, among other things, a cylindrical upper part; a frustrum of a cone at the bottom; and a flange attached to the underside which was connected to a movable bottom.[22] The patent holder claimed that the defendant's creation of an iron railroad car mirrored his in all respects except in shape: defendant's cars were octagonal and pyramidal, and plaintiff's cars were cylindrical and conical.[23] The United States Circuit Court for the District of Maryland entered judgment for the defendant claiming that there was no infringement of the plaintiff's patent.[24] The Supreme Court reversed this decision stating that the lower court improperly removed the question of infringement from the jury.[25] Specifically, the Court held that whether or not a defendant's accused device infringes on the letters-patent by embodying the patentee's mode of operation to obtain an analogous

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19. 62 F.3d 1512 (Fed. Cir. 1995), *cert. granted*, 64 U.S.L.W. 3570 (U.S. Feb. 26, 1996) (No. 95-728).
20. Winans v. Denmead, 56 U.S. (15 How.) 330, 341 (1853).
21. *Id.*
22. *Id.* at 330.
23. *Id.* at 332.
24. *Id.* at 338.
25. *Id.* at 344.

result is a question for the jury.[26] Aside from being the Court's first discussion of the doctrine of equivalents, the holding in *Winans* pronounced the prominent role of juries sitting on infringement cases.

After *Winans*, the Supreme Court has decided relatively few cases involving the doctrine of equivalents.[27] Within these opinions, no well-defined test for infringement has been stated by the Court. As a result, one historically accepted way for determining infringement under the doctrine of equivalents was to look to whether or not the elements of a device, when placed in combination, were "substantially different" or "mere formal alterations."[28] Another accepted way of determining equivalents infringement was to compare the challenged invention to the original one to see if the former was a "close copy" of the latter.[29] But it would be almost a century after *Winans* first alluded to the doctrine of equivalents until a well-defined test for infringement under this doctrine would be stated clearly by the Court.

The modern test for infringement under the doctrine of equivalents was set forth by the Court in the 1950 case of *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*[30] This case involved a patent on fluxes and an electric welding process where the trial court, affirmed in part by the court of appeals,[31] declared the patent valid and infringed.[32] The Supreme Court affirmed both the district court and the court of appeals, on the issues of validity and infringement, and echoed the language of *Winans* that, "a finding of equivalence is a determination of fact" within the

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26. *Id.*

27. *See infra* note 40.

28. Any improvements which were "substantially different" from the original combination of two or more ingredients within a machine were not deemed to be infringing under the doctrine of equivalents. In contrast, a "mere formal alteration" of the ingredients would give rise to an infringement claim under the doctrine of equivalents. Seymour v. Osborne, 78 U.S. (11 Wall.) 516, 556 (1870). This distinction could be viewed as a precursor to the modern "function/way/result" test. For a description of the modern test, *see infra* text accompanying notes 34-37.

29. Ives v. Hamilton, 92 U.S. 426, 431 (1875). It should be noted that this premodern test was basically the same as that set forth in Seymour v. Osborne, 78 U.S. (11 Wall.) 516 (1870). A "close copy" is simply something that is, "the same, or substantially the same, combination of mechanical devices." *Ives*, 92 U.S. at 430-31.

30. 339 U.S. 605 (1950).

31. Linde Air Prods. Co. v. Graver Tank & Mfg. Co., 167 F.2d 531, 539 (1948).

32. *Graver Tank*, 339 U.S. at 606.

realm of the jury.[33] The Court went on to define the modern test stating that infringement under the doctrine of equivalents occurs when one produces a device that "performs substantially the same *function* in substantially the same *way* to obtain the same *result*."[34] This is more commonly referred to in cases as the "function/way/result" test.[35] In *Graver Tank*, the Court later modified "to obtain the same result" by adding the word "substantially."[36] Therefore, the full function/way/result test is that a device will be deemed to be infringing under the doctrine of equivalents if it "performs substantially the same function in substantially the same way to obtain substantially the same result."[37] The theory is that two devices satisfying the function/way/result test are the same even though they may differ in name, form or shape.[38] Supporting this theory is that without the doctrine of equivalents, the patent would become a "hollow and useless thing."[39] Since the litigants have already written the patent itself, thereby giving the invention form, it is imperative that juries understand their proper role to help give the patent meaning.

PART II. THE HISTORIC ROLE OF THE JURY IN PATENT INFRINGEMENT CASES

Through the years, the Supreme Court has remained relatively quiet in deciding cases involving the doctrine of

33. *Id.* at 609-10.

34. *Id.* at 608 (quoting Sanitary Refrigerator Co. v. Winters, 280 U.S. 30, 42 (1929)) (emphasis added).

35. *See, e.g.*, Lifescan, Inc. v. Home Diagnostics, Inc., 76 F.3d 358 (Fed. Cir. 1996); Sofamor Danek Group, Inc. v. DePuy-Motech, Inc., 74 F.3d 1216 (Fed. Cir. 1996); Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 72 F.3d 857 (Fed. Cir. 1995); Conopco, Inc. v. May Dep't Stores Co., 46 F.3d 1556, 1562 (Fed. Cir. 1994); Genentech, Inc. v. Wellcome Found. Ltd., 29 F.3d 1555, 1569 (Fed. Cir. 1994); Zenith Cabs, Inc. v. Bristol-Myers Squibb Co., 19 F.3d 1418, 1425 (Fed. Cir. 1994); Conroy v. Reebok Int'l, Ltd., 14 F.3d 1570, 1576 (Fed. Cir. 1994).

36. *Graver Tank*, 339 U.S. at 608.

37. *Id.*

38. *Id.*

39. The Court echoed concerns of prior tribunals by stating that there would be room and encouragement for "the unscrupulous copyist to make unimportant and insubstantial changes and substitutions in the patent which, though adding nothing, would be enough to take the copied matter outside the claim, and hence outside the reach of law." *Id.* at 607. The "law" here refers to literal infringement. The Court stated that "[i]f accused matter falls clearly within the claim, infringement is made out and that is the end of it." *Id.* For a discussion of literal infringement, see Hofmann, *supra* note 5, at 1038.

equivalents.[40] Even smaller is the number of cases after *Winans* which made it to the Court on a question of a jury verdict.[41] As illustrated below, most of these cases reached the Court on a question of whether proper instructions were given to the jury by the trial judge. It is these few cases that have helped provide the foundation of the modern jury role in patent cases.

The first case which illustrates the historic role of juries in patent cases is *Prouty v. Draper Ruggles.*[42] In *Prouty,* the patentee invented a plough on which a patent was secured and allegedly infringed by the defendant under the doctrine of equivalents.[43] The plaintiff presented an extensive description of the plough which was uncontested by the defendant.[44] The issue before the Court was the validity of a jury instruction given by the Circuit Court of the United States for the District of Massachusetts.[45] Instead of disregarding the jury's conclusion, the Court held that the jury instruction delivered was not in error, and that therefore, the judgment must be affirmed.[46] Specifically, the plaintiff offered evidence and also moved for the court to instruct the jury,

> that if the defendants have used, in combination with the other two parts, a standard of the description set forth in the specification . . . such use was an infringement of the plaintiff's claim in that particular . . . . Also that if any two of the three parts described, as comprising the construction claimed in the specification, had been used in combination by the de-

40. For instance, in addition to *Graver Tank*, the Court has decided a total of thirteen cases involving this doctrine since the start of the twentieth century. *See* Markman v. Westview Instruments, Inc., 116 S. Ct. 1384 (1996); Exhibit Supply Co. v. Ace Patents Corp., 315 U.S. 126 (1942); Schriber-Schroth Co. v. Cleveland Trust Co., 311 U.S. 211 (1940); Smith v. Magic City Kennel Club, Inc., 282 U.S. 784 (1931); I.T.S. Rubber Co. v. Essex Rubber Co., 272 U.S. 429 (1926); Westinghouse Elec. & Mfg. Co. v. Formica Installation Co., 266 U.S. 342 (1924); Hildreth v. Mastoras, 257 U.S. 27 (1921); Weber Elec. Co. v. E. H. Freeman Elec. Co., 256 U.S. 668 (1921); Brothers v. United States, 250 U.S. 88 (1919); Abercrombie & Fitch Co. v. Baldwin, 245 U.S. 198 (1917); Saint Joseph & G. I. R. Co. v. Moore, 243 U.S. 311 (1917); Brill v. Washington Railway & Elec. Co., 215 U.S. 527 (1910); Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405 (1908); Hobbs v. Beach, 180 U.S. 383 (1901).

41. *See* Clough v. Barker, 106 U.S. 166 (1882); Tyler v. Boston, 74 U.S. (7 Wall.) 327 (1868); Prouty v. Draper Ruggles, 41 U.S. (16 Pet.) 336 (1842).

42. 41 U.S. (16 Pet.) 336 (1842).

43. *Id.* at 339.

44. *Id.*

45. *Id.* at 336.

46. *Id.* at 341.

> fendants, it was an infringement of the patent, although the third had not been used with them.[47]

In contrast, the defendant offered no evidence and did not propose any instructions.[48] The district court judge disregarded the plaintiff's instruction and delivered his own which read, "unless it is proved, that the whole combination [consisting of three things] is substantially used in the defendant's [invention], it is not a violation of the plaintiff's patent . . . ."[49] The plaintiff's proposed instruction basically told the jury what they were to decide, while the judge's placed all the discretion into the hands of the jury. The Supreme Court affirmed the court's ruling that any discretion should rest with the jury and not the litigants.[50] This result empowered juries serving in cases involving the doctrine of equivalents.

The role of the jury was expanded in *Tyler v. Boston.*[51] The plaintiff claimed to have discovered a new compound fluid substance that burns by mixing "mineral or earthy oils"[52] with "fusel oil."[53] This mixture was designed to burn in what are commonly known as oil lamps.[54] The defendant's fluid was composed of naphtha seventy-two parts *"in bulk"* and twenty-eight parts of fusel oil to which experts claimed was the *"substantial equivalent"* of the plaintiff's creation.[55] According to the Court, the trial court correctly stated that, "whether one compound of given proportions is substantially the same as another compound varying in the proportions — whether they are substantially the same or substantially different — is a question of fact and for the jury."[56]

Despite the expansion of the jury's role in these doctrine of equivalents cases, there remains the possibility that the judge will

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47. *Id.* at 339-40.
48. *Id.* at 339.
49. *Id.* at 340.
50. *Id.* at 341.
51. 74 U.S. (7 Wall.) 327 (1868).
52. Specifically the plaintiff claimed the "mineral and earthy oils" to be either one part kerosene or one part naphtha or crude petroleum. *Id.* at 328.
53. The plaintiff did not specify what the exact amount of fusel oil was in the invention, claiming only "by *measure* crude fusel *oil one part*. . .'the exact quantity of fusel oil which is necessary to produce the most desirable compound must be determined *by experiment.*'" *Id.*
54. *Id.* at 327.
55. *Id.* at 328.
56. *Id.* at 330-31.

grant a motion for judgment as a matter of law or, in the alternative, a motion for a new trial. For example, in *Clough v. Barker*,[57] one of the issues confronted by the court was a motion for a new trial. In that infringement case, a jury listened to the plaintiff describe a patent dealing with the improvement of gas-burners.[58] On the actual infringement issue, the jury was asked to decide whether or not the plaintiff was the true creator of the gas-burners and, in addition, whether or not the product created and sold by the defendant was substantially equivalent to the plaintiff's gas-burner.[59] Both issues were decided by the jury in favor of the plaintiff and the judge refused to grant a new trial since the verdict was sustained by the evidence presented at trial.[60]

Thus, the possibility of a motion for a new trial or other procedural devices not unique to patent law, combined with the recent decisions of the Federal Circuit, has led to confusion and conflicting results in recent doctrine of equivalents cases.

PART III. THE CURRENT ROLE OF THE JURY AS MOLDED BY THE FEDERAL CIRCUIT

Unlike the Supreme Court, the Federal Circuit has decided a large number of cases involving the doctrine of equivalents.[61] On one hand, the Federal Circuit has sought to limit the role of juries[62] and on the other, it has sought to expand that role.[63] An

57. 106 U.S. 166 (1882).

58. *Id.* at 167.

59. *Id.* at 168.

60. *Id.* at 173.

61. *See, e.g.*, Lifescan, Inc. v. Home Diagnostics, Inc., 76 F.3d 358 (Fed. Cir. 1996); Sofamor Danek Group, Inc. v. DePuy-Motech, Inc., 74 F.3d 1216 (Fed. Cir. 1996); Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 72 F.3d 857 (Fed. Cir. 1995); Conopco, Inc. v. May Dep't Stores Co., 46 F.3d 1556 (Fed. Cir. 1994); Genentech, Inc. v. Wellcome Found. Ltd., 29 F.3d 1555 (Fed. Cir. 1994); Intel Corp. v. United States Int'l Trade Comm'n, 946 F.2d 821 (Fed. Cir. 1991); London v. Carson Pirie Scott & Co., 946 F.2d 1534 (Fed. Cir. 1991); Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251 (Fed. Cir. 1989); Spectra Corp. v. Lutz, 839 F.2d 1579 (Fed. Cir. 1988); Carman Indus., Inc. v. Wahl, 724 F.2d 932 (Fed. Cir. 1983); Hughes Aircraft Co. v. United States, 717 F.2d 1351 (Fed. Cir. 1983).

62. Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995), *aff'd*, 116 S. Ct. 1384 (1996) (holding claim interpretation is a question of law for the court to decide).

63. Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512 (Fed. Cir. 1995), *cert. granted*, 64 U.S.L.W. 3570 (U.S. Feb. 26, 1996) (No. 95-728) (holding that the determination of equivalence is a question of fact for the jury to decide).

examination of some of the cases that have been decided since the Federal Circuit's creation in 1982 will provide an understanding of the modern role of the jury in patent infringement cases involving the doctrine of equivalents.

With the exception of one early decision,[64] the Federal Circuit has preserved the historic role of the jury. For example, in *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*,[65] the court simply restated that the normal functions of the jury are to apply the law to the facts and to balance carefully the intent of the parties during the trial.[66] Likewise, in *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*,[67] in referring to evidence offered during trial, the court stated that assuming any ambiguities exist, another normal role of the jury is to resolve them and make any legitimate inferences from the facts necessary to reach their decision.[68] And in *United States Philips Corp. v. Windmere Corp.*,[69] the court claimed that it was for the jury to determine witness credibility and the weight of testimony. Finally, the Federal Circuit collected all of these viewpoints in *Allied Colloids, Inc. v. American Cyanamid Co.*[70] when it proclaimed: "Credibility determinations, the weighing of evidence, and the drawing of legitimate inferences from the facts are jury functions . . . ."[71]

The late 1980s through the 1990s, however, brought a noticeable shift in direction of the Federal Circuit with regard to the jury's role. The first case illustrating this is *Newell Companies, Inc. v. Kenney Manufacturing Co.*,[72] decided in 1988. At issue was a patent held by the plaintiff, Newell Companies, Inc., on retractable window shades which allow consumers to assemble them without

64. Connell v. Sears, Roebuck & Co., 722 F.2d 1542 (Fed. Cir. 1983). Connell brought an infringement suit against Sears alleging that certain hair curlers sold by Sears infringed on a patent held by Connell. *Id.* at 1545. Sears counterclaimed denying infringement and asked for a declaratory judgment that the patent held by Connell was invalid. *Id.* Following a seven day trial, the jury found that Connell's patent "was valid, enforceable, and infringed by the accused curlers." *Id.* However, the verdict was overturned when the judge claimed that as a matter of law, there was not substantial evidence to support the jury's verdict. *Id.*

65. 725 F.2d 1350 (Fed. Cir. 1984).

66. *Id.* at 1364.

67. 806 F.2d 1565 (Fed. Cir. 1986).

68. *Id.* at 1572.

69. 861 F.2d 695, 705 (Fed. Cir. 1988).

70. 64 F.3d 1570 (Fed. Cir. 1995).

71. *Id.* at 1575.

72. 864 F.2d 757 (Fed. Cir. 1988).

the use of tools.[73] After all the evidence was in, "both parties moved for a directed verdict on which the district court reserved its rulings . . . ."[74] The case was submitted to a jury and it returned a verdict stating that the patent at hand was not obvious, but that the defendant did in fact infringe on it.[75] The district court then ruled on the dual pre-verdict motions; it denied the plaintiff's, but granted the defendant's and overturned the jury's verdict.[76] On appeal, the Federal Circuit affirmed the rulings of the district court stating that there was "no legal error" in holding that the patent was obvious.[77] The defendant stated four possible reasons for upholding the jury's verdict, but the Federal Circuit did not agree.[78] In particular, defendant asserted: first, that the trial court narrowly construed the elements of the claim; second, after a verdict was rendered, the defendant did not meet its tremendous burden of proof; third, the trial court was required to draw the "'inference' of obviousness in plaintiff's favor"; and fourth, there is a legal presumption of jury findings "necessary to support the verdict."[79] In reaching its holding, the Federal Circuit rejected all four of these arguments advanced by Newell, noting that by fully considering all of the evidence, there was a clear and strong case of an obvious patent.[80] Thus, despite the prior continual expansion of the jury's role, *Newell* represents a new era within the Federal Circuit where much less deference is shown to the jury in equivalents cases.

Further illustrating this modern shift in the jury's role is *Malta v. Schulmerich Carillons, Inc.*[81] Decided three years after *Newell*, *Malta* specifically involved the doctrine of equivalents. The patent holder and plaintiff, Mr. Jacob Malta, brought suit on his patent for handbells (used to make music) consisting of a clapping device which allowed the user to adjust the loudness of the bells with ease.[82] The jury found that one of the claims was in-

73. *Id.* at 759.
74. *Id.* at 761.
75. *Id.*
76. *Id.*
77. *Id.* at 769.
78. *Id.* at 767.
79. *Id.* at 767-68.
80. *Id.* at 769.
81. 952 F.2d 1320 (Fed. Cir. 1991).
82. *Id.* at 1321.

fringed under the doctrine of equivalents and that the defendant was not the equitable holder of the plaintiff's patent; as a result, they awarded damages in the amount of $950,000 to the plaintiff.[83] Citing the opinion of the Federal Circuit in *Lear Siegler, Inc. v. Sealy Mattress Co.*,[84] the district court overturned the jury with a JMOL claiming that the jury had insufficient evidence to satisfy infringement under the doctrine of equivalents.[85] In affirming this decision, the Federal Circuit stated that, the "function/way/result test is an acceptable way of showing that the structure in an accused device is the 'substantial equivalent' of a [patented device]," but proper "proof is necessary to . . . [establish this or else the jury is simply] . . .'put to sea without guiding charts' and . . . [asked to determine] . . . infringement from simply comparing the claimed invention and the accused device 'as to overall similarity.'"[86] Thus, after showing deference to the jury early in its history, the Federal Circuit continued its more recent practice of overturning jury verdicts in infringements cases.

The most important case of the modern era is *Markman v. Westview Instruments, Inc.*[87] This case stands as the best example of the compression of the role of the jury in cases involving the doctrine of equivalents.

The facts of *Markman* are rather straightforward. The plaintiff, Markman, was the patent-holder and owner of a dry-cleaning business.[88] In an effort to improve business, he created an "inventory control system"[89] whereby articles of clothing that were received from customers were processed and could be accounted for at all times.[90] This system allowed the plaintiff to reduce clothing loss substantially, which lead to less customer dissatisfaction, helped prevent internal employee theft, and lead to an overall in-

83. *Id.* at 1323.

84. 873 F.2d 1422 (Fed. Cir. 1989).

85. *Malta*, 952 F.2d at 1324.

86. *Id.* at 1326-27 (quoting *Lear Siegler*, 873 F.2d at 1425-26).

87. 52 F.3d 967 (Fed. Cir. 1995), *aff'd*, 116 S. Ct. 1384 (1996).

88. *Id.* at 971.

89. This system consisted of the following: 1) a data input device used to enter descriptions of articles and identity of patron, 2) a data processor including memory operable to store and record the above information, and 3) a dot matrix printer which is used to generate records including optically-detectable bar codes. *Id.* at 972.

90. *Id.* at 971.

crease in net profits.[91] Westview, the defendant and alleged infringer, produced a device consisting of "two separate pieces of equipment"[92] used for inventory monitoring.[93] Following the same strategy of the defendant in *Newell*, Westview moved for a JMOL at the conclusion of the plaintiff's case in chief, to which the judge deferred ruling.[94] After the charge from the judge, the jury returned a verdict finding that the defendant's system infringed on two of the claims.[95]

After the announcement of the jury's verdict, the district court granted the defendant's motion for a JMOL, proclaiming that "claim construction was a matter of law for the court . . . ."[96] Through the interpretation of the district judge, the defendant's system was lacking in several important respects when compared to the plaintiff's.[97] On review, the Federal Circuit examined its own previous decisions and determined that there are two lines of authority: one holding that claim construction is a matter of law and the other holding that claim construction has underlying factual inquiries that must be submitted to a jury.[98] The court then looked to the decisions handed down by the Supreme Court which

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91. *Id.*

92. These were the DATAMARK (a stationary device containing a keyboard, electronic display, processor, and a printer) and the DATASCAN (portable device containing a microprocessor and an optical detector used to read bar codes). *Id.* at 972.

93. *Id.*

94. *Id.* at 973.

95. In this case, Markman, the holder of patent '054, sued for infringement under three different claims: 1, 10, and 14. Independent claim 1 is entitled the "Inventory Control and Reporting System." It is comprised of: a data input device, a data processor, and a dot matrix printer. Dependent claim 10 refers to the input device of claim 1 as being an "alpha-numeric keyboard." Independent claim 14 is not described as it was not an issue in this appeal. The jury found that only independent claim 1 and dependent claim 10 were infringed upon. *Id.* at 972-73.

96. *Id.* at 973.

97. Contrary to the jury's perception that "inventory" referred simply to "transaction totals or dollars," the trial court judge construed the word inventory to mean "articles of clothing." On appeal, Chief Judge Archer of the Federal Circuit specifically found that the Westview system could not: a) generate reports about the status and location of articles, b) maintain an inventory total, and c) detect and localize false additions or deletions to the inventory totals. *Id.*

98. *Id.* at 976-77 (citing SSIH Equip. S.A. v. United States Int'l Trade Comm'n, 718 F.2d 365 (Fed. Cir. 1983); McGill, Inc. v. John Zink Co., 736 F.2d 666 (Fed. Cir. 1984)).

consistently followed the former construction.[99] As a result, the Federal Circuit affirmed the decision of the district court.[100]

A. *Jury Process in the Wake of* Markman

One major conflict that arises from a holding that claim construction or interpretation is a matter of law for the court to decide, is whether or not this infringes upon the Seventh Amendment's right to a jury trial. This Seventh Amendment violation depends on the meaning of "claim construction or interpretation" as defined by the Federal Circuit. The *Markman* majority defines this as the "meaning and scope of the patent" which is allegedly being infringed upon.[101] The dissent, however, draws a sharp distinction between "claim construction" and "claim interpretation."[102] Circuit Judge Newman states "patent infringement litigation . . . often [involves] . . . a factual dispute as to the [true] meaning and scope of technical terms or words of art as they are used in . . . [a] . . . patented invention."[103] In contrast, the majority refuses to rely on any distinction between the two phrases.[104] In his concurrence, Circuit Judge Mayer approaches the Seventh Amendment conflict in a way similar to that of Circuit Judge Newman. He begins by indicating that although interpretation of a patent claim is usually a matter of law, certain scenarios do exist where the patent claim will have underlying factual inquiries.[105] In these scenarios, Circuit Judge Mayer feels that the jury, and not the judge, should resolve any factual inquiries.[106] In concluding, Circuit Judge Mayer also refers to principles of contract law by relying on the words of Justice Story and several decisions of the

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99. *Id.* Chief Judge Archer listed a string of nine cases supporting this proposition beginning with Hogg v. Emerson, 47 U.S. (6 How.) 437, 484 (1848), and ending with Singer Mfg. Co. v. Cramer, 192 U.S. 265 (1904).

100. *Markman*, 52 F.3d at 989.

101. *Id.* at 975.

102. Circuit Judge Newman bases the thrust of her distinction between "claim interpretation" and "claim construction" on principles of contract law. She highlights the battle as being "Legal 'Construction' v. Factual 'Interpretation.'" *Id.* at 1000 (Newman, J., dissenting).

103. *Id.*

104. The majority feels that claim construction and claim interpretation "mean one and the same thing in patent law." Therefore, reference to principles of contract law are unnecessary. *Id.* at 976.

105. *Id.* at 989 (Mayer, J., concurring).

106. *Id.*

Supreme Court.[107] Judge Mayer goes on to note that although Justice Story stated that "the interpretation of written documents properly belongs to the court, . . . there certainly are cases, in which . . . the true interpretation of the language may be left to the consideration of the jury for the purpose of carrying into effect the real intention of the parties."[108] The precedent that Circuit Judge Mayer relies on echoes Justice Story's words by holding that some cases yield themselves to a determination by a jury.[109]

In delivering the opinion of the Federal Circuit in *Markman*, Chief Judge Archer states that the decision of the court must be limited to the construction of claims.[110] However, as detailed above, two Federal Circuit judges[111] and a number of commentators[112] disagree, stating that in practice, the holding will not be so limited. This expanded view of the *Markman* holding arises because the issue of claim interpretation surfaces in nearly every infringement suit, and it is often the issue on which the case is either tried or disposed.[113]

To date, the Federal Circuit has ruled generally that the issue of infringement is a two step process: the first step is to construe

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107. *Id.* at 997 (quoting William & James Brown & Co. v. McGran, 39 U.S. (14 Pet.) 479, 493 (1840)). In the quoted case, Justice Story stated, "the interpretation of written documents properly belongs to the Court, and not to the jury." *Id.*

108. *Id.*

109. *Id.* (citing Goddard v. Foster, 84 U.S. (17 Wall.) 123 (1872); Reed v. Proprietors of Locks & Canals on Merrimac River, 49 U.S. (8 How.) 274, 289 (1850)). In *Goddard*, the Court held that written instruments were to be determined by a court "except when they contain technical words, or terms of art . . . in which case the inference to be drawn from it must be left to the jury." *Goddard*, 84 U.S. at 142. Similarly, in *Reed*, the Court allowed a jury to interpret a vague or ambiguous deed where it was necessary to tell whether the land in controversy was within the coverage of the deed. *Reed*, 49 U.S. at 289.

110. Markman v. Westview Instruments, Inc., 52 F.3d 967, 984 (Fed. Cir. 1995).

111. In his opinion concurring in the judgment, Circuit Judge Mayer said that this decision "eviscerates the role of the jury . . . mark[ing] a . . . change in the course of patent law that is nothing short of bizarre" by indirectly stating that "judges are any more qualified to resolve complex technical issues often present in patent cases." *Markman*, 52 F.3d at 989-93 (Mayer, J., concurring). Likewise, in her dissent, Circuit Judge Newman states that this decision "creates a litigation system that is unique to patent cases, unworkable, and ultimately unjust." *Markman*, 52 F.3d at 999 (Newman, J., dissenting).

112. *See* Lawrence Rosenthal & Matthew W. Siegal, *Court Limits Jury's Role In Patent Interpretation*, Nat'l L. J., October 23, 1995, at C39-40.

113. Marcus Millet, *Federal Circuit Strictly Limits Role of Juries in Patent Cases*, N.J.L.J., July 24, 1995, at 13.

the asserted claims, and the second step is to determine whether the accused device or method falls within the properly construed claims.[114] This highlights the importance of the first step — which *Markman* held is only for the trial court judge to construe. Prior to *Markman* some cases had indicated that it was the job of the jury to perform both of these functions.[115] Because of this tension between judge and jury, the Supreme Court granted certiorari to resolve the conflict.[116]

B. *The Court's Review of* Markman

As stated earlier, the Supreme Court rarely grants certiorari to patent cases involving the doctrine of equivalents.[117] However, on April 23, 1996, Justice Souter handed down a unanimous opinion of the Supreme Court in the *Markman* case.[118] In affirming the Federal Circuit, the Court held "that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court."[119] In reaching this decision, the Court first looked to whether or not the construction of a patent

> was tried at law at the time of the Founding [of the United States] or is at least analogous to [a cause of action] that was. If the action in question belongs in the law category, [then we next] ask whether the particular trial decision must fall to the jury in order to preserve the substance of the common-law right as it existed in 1791 [at the Founding].[120]

The Court concluded that early patent infringement cases, and even more so, modern infringement actions must be tried to a jury.[121] With the patent infringement fitting into the historical law category, all that was left for the Court was to determine whether or not construction of a patent must fall into the hands of a jury in order to preserve the Constitutional right to a jury

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114. *Accord* Caterpillar Tractor Co. v. Berco, S.p.A., 714 F.2d 1110 (Fed. Cir. 1983); Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985); Grain Processing Corp. v. American Maize-Prod., 840 F.2d 902, 908 (Fed. Cir. 1988).

115. *See, e.g.*, Read Corp. v. Portec, Inc., 970 F.2d 816, 821 (Fed. Cir. 1992).

116. Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995), *cert. granted*, 116 S. Ct. 40 (Sep. 27, 1995), *aff'd*, 116 S. Ct. 1384 (1996).

117. *See supra* note 10.

118. Markman v. Westview Instruments, Inc., 116 S. Ct. 1384 (1996).

119. *Id.* at 1387.

120. *Id.* at 1389 (citations omitted).

121. *Id. See, e.g.*, Bramah v. Hardcastle, 1 Carp. P.C. 168 (K.B. 1789).

trial.[122] Unlike the first issue, there is no apparent determinative law or test. As a result, the Court is "forced to make [its own] judgment about the scope of the Seventh Amendment guarantee . . . ."[123] In reaching this judgment, the Court "searche[d] the English common law for 'appropriate analogies' rather than a 'precise analogous common-law cause of action.'"[124] The only analogy that could be found by the Court was the construction of specifications which described an invention.[125] The Court found that there was "no established jury practice sufficient to support an argument by analogy that today's construction of a claim should be a guaranteed jury issue."[126]

The Court's judgment on this issue rested primarily on the jury's role in patent infringement cases. The Court stated that the "absence of an established [jury] practice should not [be a] surprise . . . given the primitive state of jury patent practice at the end of the 18th century, when juries were still new to the field."[127] During this time, judges created the law without the aid of precedents.[128] For example, looking once again at the construction of specifications, early English reports show "the judges [and not juries] construing the terms of the specifications."[129] Furthermore, the jury's limited role is illustrated even in later cases decided by this Court.[130] Thus, the Court affirmed the Federal Circuit.

By affirming the Federal Circuit, modern juries in doctrine of equivalents infringement cases will now suffer a setback in terms of the actual power they possess. As stated earlier, claim interpretation is probably the single most important half of the two-part

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122. *Markman*, 116 S. Ct. at 1389-90.

123. *Id.* at 1389.

124. *Id.* at 1390 (citing Tull v. United States, 481 U.S. 412, 420-21 (1986)).

125. *Id.* at 1391. Litigation here was referred to as "'enablement' cases in which juries were asked to determine whether the specification described the invention well enough to allow members of the appropriate trade to reproduce it." Arkwright v. Nightingale, Dav. Pat. Cas. 37, 60 (C.P. 1785).

126. *Markman*, 116 S. Ct. at 1391.

127. *Id.*

128. Hulme, *On the Consideration of the Patent Grant, Past and Present*, 13 L.Q. Rev. 313, 318 (1897).

129. *Markman*, 116 S. Ct. at 1392 (citing Bovill v. Moore, Dav. Pat. Cas. 361, 399, 404 (C.P. 1816) (judge submits question of novelty to the jury only after explaining some of the language and 'stat[ing] in what terms the specification runs')).

130. *See, e.g.*, Winans v. New York & Erie R. Co., 62 U.S. (21 How.) 88, 100 (1859); Winans v. Denmead, 56 U.S. (15 How.) 330, 338 (1854); Hogg v. Emerson, 47 U.S. (6 How.) 437, 484 (1848).

infringement analysis. With this issue completely beyond the jury's reach, the jury's overall role in an infringement case is significantly minimized. However, despite this setback, it appears that there will be four positive effects.

First, the overall time spent on equivalents infringement cases will be reduced.[131] This will occur since claim determination is one of the highly contested areas of a patent infringement case, and it takes place at the outset. With the judge making a decision on this, attorneys will probably feel that they have to do far less explaining to jurors. And, in a way, this result will actually have a positive effect on the jury since their time spent in open court will be reduced.

Second, the costs of equivalents infringement cases will be sharply reduced.[132] Ordinarily, due to the complex nature of an equivalents case, lawyers must devote a substantial amount of time explaining the two patents at issue to the jury. This usually involves highly trained expert witnesses who charge a high premium for their testimony. Since *Markman* held that claim interpretation is for the court to decide, equivalents lawyers will no longer need to explain what the patents mean. As a result, all of the costs associated with time consuming testimony will be eliminated.

Third, the *Markman* affirmation will protect defendants against outrageous claims of patent infringement.[133] Judges will have better expertise in infringement issues, and they will recognize a plaintiff's faulty claim at the outset. Once identified, the faulty claim will be dismissed before much time and energy is exhausted on it. As a result, this has a positive effect on the jury's role by not subjecting it to so-called frivolous litigation. The Court arrives at this conclusion by examining its own precedent, particularly that of Justice Curtis, a former patent practitioner, and by examining functional considerations.[134] Justice Curtis stated that within the two basic elements of a patent case, which are, "construing the patent and determining whether infringement occurred," judges usually decide the former as a question of law and leave the

131. Rosenthal & Siegal, *supra* note 112, at C39.

132. *Id.*

133. *Id.*

134. Markman v. Westview Instruments, Inc., 116 S. Ct. 1384, 1393 (1996).

latter for juries to decide.[135] Functionally, the Court goes on to say:

> The construction of written instruments is one of those things that judges often do and are likely to do better than jurors unburdened by training in exegesis. Patent construction in particular "is a special occupation, requiring . . . special training and practice. [As a result,] [t]he judge . . . is more likely to give a proper interpretation to such instruments than a jury; and he is, therefore, more likely to be right, in performing such a duty, than a jury can be expected to be."[136]

Finally, the *Markman* decision promotes a new uniform treatment of specific patents.[137] Once again, the Court is supported by precedent, noting that the limits of a patent must be public knowledge.[138] Without this knowledge, a "zone of uncertainty" would exist regarding the nature of a patent and, in turn, would make fewer people decide to become inventors.[139] In fact, Congress also sought uniformity of treatment for specific patents by creating the Court of Appeals for the Federal Circuit: the exclusive tribunal for appellate patent decisions.[140] With an exclusive patent tribunal, precedent will develop over time and the public will not be subjected to the whimsical will of one jury versus that of the next. Each future jury will benefit from this precedent because it will become the law judges will use to instruct juries.

C. *The New Hope for Restoration of Juror Power: The* Hilton *Decision*

Before the Supreme Court even had a chance to render its decision in *Markman*, the Federal Circuit was again confronted with an important equivalents case. Not four months after the Federal Circuit decided *Markman,* this same court shocked the intellectual

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135. *Id.* (citing *Hogg*, 47 U.S. at 484; Winans v. Denmead, 56 U.S. at 338; Winans v. New York & Erie R. Co., 62 U.S. at 100).

136. *Id.* at 1395 (quoting Parker v. Hulme, 18 F. Cas. 1138, 1140 (No. 10,740) (CC ED Pa. 1849)).

137. *Id.* at 1396.

138. General Elec. Co. v. Wabash Appliance Corp., 304 U.S. 364, 369 (1938).

139. United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236 (1942).

140. In referring to H.R. Rep. No. 97-312, pp. 20-23 (1981), Justice Souter noted that the increased uniformity of specialized judges handling patent matters would actually "strengthen the United States patent system in such a way as to foster technological growth and industrial innovation." *Markman*, 116 S. Ct. at 1396 (quoting H.R. Rep. No. 97-312, at 20).

property community with its decision in *Hilton*. Relieving some of the compression that *Markman* had imposed, the case illustrates the clearest example of the Federal Circuit's expansion of the jury's role in a case involving the doctrine of equivalents. In *Hilton,* the plaintiff, a manufacturer of food and drug impurity-identifying dyes, secured '746 patent in 1985 which replaced an expensive purification process with one known as "ultrafiltration."[141] The plaintiff sued Warner-Jenkinson, the defendant, after the defendant began to use commercially an ultrafiltration process[142] very much like the one secured by the '746 patent. After nine days of trial, the case was submitted to the jury, which decided that the patent was valid and the defendant did infringe under the doctrine of equivalents.[143] Dissatisfied with the outcome, the defendant made a post-verdict motion for JMOL, and then appealed when the trial court did not grant the motion.[144]

In the decision from the Federal Circuit, seven judges voted to affirm the trial court's ruling and five judges voted to overturn it. In addition to the majority opinion of the Federal Circuit,[145] this division prompted one concurring opinion and three separate dissenting opinions.[146] The majority opinion examined the history of the doctrine of equivalents and concluded that the Supreme Court provided the useful function/way/result test in *Graver Tank,* but that that test is not the end of an equivalents inquiry.[147] The opinion went on to state that after a jury makes a finding of equiva-

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141. Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1515 (1995). Specifically, ultrafiltration involves separating the dye product from various impurities that are present by passing the solution through a membrane at a specified pressure, pH level and pore diameter size. *Id.*

142. At trial, the plaintiff demonstrated that the '746 patent concerned a process which utilized a membrane having a "nominal pore diameter of 5-15 Angstroms under a hydrostatic pressure of approximately 200 to 400 p.s.i.g., [and] at a pH from approximately 6.0 to 9.0 . . . ." *Id.* Similar to this, the defendant's process contained a pore diameter of 5-15 Angstroms, pressure of approximately 200 to 500 p.s.i.g., and a pH of 5.0. *Id.*

143. *Id.* at 1516.

144. *Id.*

145. The majority opinion was delivered per curiam.

146. Circuit Judge Newman, who was the lone dissenter in *Markman*, filed the concurring opinion. Circuit Judges Plager, Lourie, and Nies all filed separate dissenting opinions in which various other dissenting members joined. *Id.* at 1529-83.

147. *Id.* at 1518. The Federal Circuit stated that in addition to the function/way/result test, the Supreme Court considered all of the evidence relevant to the "substantiality of the differences" including evidence of copying and evidence of "designing around" the patent claims. *Id.* at 1519-20.

lence, the verdict will be upheld if supported by substantial evidence, as was the case here.[148]

Hilton drew a total of three separate dissents from the Federal Circuit panel deciding the case.[149] The first dissent, written by Circuit Judge Plager, attacks the very essence of the doctrine of equivalents claiming that "[a]ny patentee may invoke it as a second prong to an infringement suit, in addition to the statutory cause of action of literal infringement."[150] According to Judge Plager, application of the doctrine should be for the court, and not the jury.[151] In addition, Circuit Judge Plager goes on to state that equivalents cases are largely "pro forma" as a result of most of the cases reaching the appellate level with only a general verdict and no explanation by the jury of the rationale behind the verdict, if any one should exist.[152]

In Judge Lourie's dissent, he indicates that the trial judge in *Hilton* did not follow the correct test for infringement under the doctrine of equivalents.[153] Specifically, Circuit Judge Lourie indicates that for many years courts have been concentrating on the function/way/result test to determine infringement under the doctrine when this is only a part of the analysis.[154] The result, he feels, has been confusion.[155]

Finally, in his dissent, Circuit Judge Nies states that no infringement can be found in this case as a matter of law if the doctrine of equivalents is correctly applied.[156] Judge Nies combines the notion that courts have no right to enlarge a patent beyond the scope of its claim with the view that, at most, the doctrine of equivalents allows for the substitution of an equivalent step within the boundaries of the invention as marked out by the original claim.[157]

The decision in *Hilton* drew much attention because it followed *Markman,* was decided by the same judges, and sent a con-

148. *Id.* at 1524.
149. *Id.* at 1536-83.
150. *Id.* at 1537 (Plager, J., dissenting).
151. *Id.* at 1543.
152. *Id.* at 1544.
153. *Id.* at 1545 (Lourie, J., dissenting).
154. *Id.*
155. *Id.*
156. *Id.* at 1550 (Nies, J., dissenting).
157. *Id.* at 1551.

flicting message as to the jury's proper role in cases involving the doctrine of equivalents. Reaction from practicing attorneys and commentators to the *Hilton* verdict was swift.[158] But the conflict identified in relation to *Markman* no longer exists since the United States Supreme Court has stated that claim determination is purely a question for the court to decide, and this determination does not infringe upon the Seventh Amendment right to a trial by jury.[159] As *Hilton* presently stands, the jury is given great power to do what it does best: match the claim against the evidence presented at trial. However, the *Markman* decision has significantly reduced the role of juries in patent infringement cases. Only after a litigant has survived this first crucial step can the Federal Circuit's decision in *Hilton* help.

Although the Supreme Court recently assisted in compressing the role of the jury by its decision in *Markman*, *Hilton* now offers new hope for potential infringements jurors. At present, the intellectual property community stands poised awaiting the decision of the Court in *Hilton* which is expected near the end of 1996 or early in 1997.[160] Upon review of *Hilton,* the Supreme Court decision to affirm or reverse will determine the role of juries in future patent infringement cases. If the Court affirms the Federal Circuit, the jury will maintain its restored power and prominence. Infringement under the doctrine of equivalents will remain an issue of fact which must be submitted to a jury for consideration. If, however, the Court reverses the Federal Circuit, serious questions will arise as to whether or not a jury is even needed in an infringements case. Coupling a reversal in *Hilton* with the Court's earlier *Markman* decision will make it seem like the jury's verdict amounts to nothing more than a "rubber stamp" on a decision reached by the sitting judge or panel of judges.[161]

From the language in *Markman*, however, it appears that the Court views the Federal Circuit as a 'specialized court' which is

158. *See, e.g.*, Teresa Riordan, *Patents: Substantial Questions Linger After A Ruling That Could Give Patent Holders More Power*, N.Y. Times, August 21, 1995, at D2; Mark Walsh, *Federal Court Issues Key Patent Ruling On 'Equivalence,'* The Recorder, August 11, 1995, at 1.

159. Markman v. Westview Instruments, Inc., 116 S. Ct. 1384, 1393 (1996).

160. Gary M. Hoffman & John A. Wasleff, *A Tale of Two Court Cases:* Markman *and* Hilton-Davis, 13 The Computer Lawyer, No. 6, June 1996, at 18.

161. Markman v. Westview Instruments, Inc., 52 F.3d 967, 989 (Fed. Cir. 1995) (Mayer, J., concurring).

well equipped to handle any case that comes before it.[162] Since the Federal Circuit was able to decide both *Markman* and *Hilton* within a period of about four months, there must be an interpretation which reads these cases as more analogous than dissimilar. Possibly this interpretation is that due to the complexity of an infringements case, both the judge and the jury should contribute to the case in the best way that each can. Although not a hardfast rule, judges deal with complex issues more often than jurors and are therefore more qualified to determine the precise meaning of an infringements claim. In contrast, most jurors have no problem ingesting facts that are presented in a clear and organized manner. Thus, if every part of the trial is working as it theoretically should, the litigants will experience an efficient and fair proceeding. As society becomes more technologically advanced, there may come a day when most citizens know more about patents than do judges. If this becomes reality, then the Federal Circuit can side-step the *Markman* decision with confidence that an efficient and fair trial will result. Therefore, since the two cases can be reconciled, it is highly probable that the Court will defer to the Federal Circuit and affirm *Hilton* in its entirety. If the Court does this, jurors will still be in need of guidance to help them reach verdicts more easily.

PART IV. A STATUTORY FRAMEWORK TO HELP JURORS DECIDE EQUIVALENTS CASES

Despite this split of authority between the judge and the jury, neither *Markman* nor *Hilton* offer anything to help resolve the two primary competing policy concerns involving the doctrine of equivalents. The two basic competing policies of the doctrine of equivalents are: 1) a battle between the claims described in the various patents that are issued being clear and well written so that the public has adequate notice of what the claimed invention is, contrasted with 2) the patentee losing the benefits of his invention due to the clever copyist who makes insubstantial changes which

162. In their article, Hoffman and Wasleff note that the *Markman* "decision . . . has rekindled speculation that a movement is afoot to marginalize the role of juries in patent litigation, and perhaps move in the direction of a specialized court system." Hoffman & Wasleff, *supra* note 160, at 18. In the actual case, however, it appears that Justice Souter would attribute this so-called movement to the Congress and not the Court. *See generally Markman*, 116 S. Ct. at 1936.

effectively takes the infringing invention out of the scope of the statutorily defined literal infringement.[163]

Prior to the *Hilton* decision, many felt that the doctrine of equivalents was an equitable remedy, and thus not on the same level as statutory literal infringement.[164] However, the decision in *Hilton* effectively places the doctrine of equivalents on the same level as literal infringement; both are issues of fact to be submitted to the factfinder for a decision.[165] With this new position, the competing policies of the doctrine now have an even more important impact.

The jury plays a tremendous role in deciding whether or not a clever copyist has made insubstantial changes to a patented invention. It is evident that the primary jury function under the doctrine of equivalents is to examine the evidence and prevent the clever copyist from infringing on an established patent.[166] But questions arise as to how the jury can possibly influence patents so they are written clearly. In fact, the function of the jury is not triggered merely by the filing of an application for a patent. Likewise, the granting of a patent will only invoke the jury's expertise when a lawsuit reaches the courtroom. During this lawsuit, the jury will use the patent as the standard against which to compare the accused infringing device. Only through the minor act of comparison will the jury have any impact on whether a given patent is well written. Therefore, it is fair to conclude that the major influence the jury will have upon the competing policy concerns will be in defending the purpose of the doctrine of equivalents by identifying

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163. London v. Carson Pirie Scott & Co., 946 F.2d 1534, 1538 (Fed. Cir. 1991); Peter Blackman, *Doctrine of Equivalents: Ruling Unlikely To Resolve Tension In Patent Law*, N.Y. L.J., July 21, 1994, p. 5.

164. One strong voice for this proposition is Federal Circuit Judge Plager who in dicta is quoted as saying, "Application of the doctrine of equivalents is the exception, however, not the rule . . . ." *London*, 946 F.2d at 1538. In a later opinion, Judge Plager said, "[T]he doctrine of equivalents is not an automatic second prong to every infringement charge. It is an equitable remedy available only upon a suitable showing." 25 U.S.P.Q. 2d (BNA) 1954, 1956 (Fed. Cir. 1992). *See also En Banc Fed. Circuit Will Review Doctrine of Equivalents and Equity*, 47 Pat. Trademark & Copyright J. (BNA) No. 133, Dec. 9, 1993.

165. Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1522 (Fed. Cir. 1995), *cert. granted*, 64 U.S.L.W. 3570 (U.S. Feb. 26, 1996) (No. 95-728).

166. This basically sums up one of the holdings of *Hilton*. Determining equivalence is an issue of fact to be determined by a jury when it is sitting as fact finder in an infringement action. *Id.*

and preventing the clever copyist from perpetrating a fraud on the patent.[167]

When a case reaches the jury, the members of the jury are required to arrive at a decision based on an application of the facts to the law. Aside from defending the purpose of the doctrine of equivalents, the jury will have a rather slight effect on the competing policy concerns. The jury cannot single-handedly define the boundaries of the doctrine. They can only help to shape it by providing an example of facts that are sufficient to warrant recovery under the doctrine of equivalents. Only Congress and the judiciary have the necessary means to address the competing concerns directly. The judiciary is, however, restrained by the fact that it cannot decide issues unless litigants bring disputes.[168] In contrast, Congress has the law-making power and thus the ability to effectuate change when it becomes evident that change is warranted and necessary.[169]

Because the two policies tug at opposite ends of the spectrum, countless courtroom battles that could be avoided are thrust into the hands of juries with no uniform guidance. And from this, it is clear that the role of the jury in patent cases involving the doctrine of equivalents is confused and in transition. Therefore, Congress should intervene by enacting a statute that results in reduced litigation.

Congress is in the best position to effectuate this necessary change in the midst of the present rapid technological revolution. Despite Congress's sluggishness to pass most laws, any amount of time spent doing just that would likely be shorter and provide greater clarity than waiting for the judiciary to make an appropriate ruling. It could be years before the right fact specific scenario ends up in the courts. In turn, this proposed legislation will help to make the role of the jury easier in future cases by creating a new base of evidence to examine.

Judge Newman, in her concurring opinion of *Hilton*, suggested that the decision of the court did not answer the difficult question

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167. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608 (1950).

168. *See, e.g.*, Flast v. Cohen, 392 U.S. 83, 94-95 (1968); Muskrat v. United States, 219 U.S. 346, 356 (1911); Osborn v. Bank of the United States, 22 U.S. (9 Wheat.) 738, 819 (1824).

169. "All legislative Powers herein granted shall be vested in a Congress of the United States . . . ." U.S. Const. art. I, § 1.

of how to improve lawyers' abilities to predict the outcomes of cases involving the doctrine of equivalents; nor did it reduce the uncertainty of technological decision making.[170] As a result, Judge Newman invited "creative thinking" for a statutory procedure whereby patentees could continue to protect their work after hastily filing for a patent.[171] In response to this challenge, patent laws from various countries around the world help provide such a statutory framework.[172]

Under the current United States statute dealing with amendment of patents, a patent holder has two years in which to enlarge the scope of the claims of the original patent.[173] Initially, patent holders are not aware of subtle variations that can be either added or subtracted from the original patent in order to improve the performance of their device. In the period of just two years, they are expected to expose all of these and incorporate them into the scope of the original patent.[174] This generally does not happen. And as a result, this short time period invites litigation involving the doctrine of equivalents in future years.

In order to help curb this wave of litigation, Congress should amend Chapter 25 of Title 35 to include a new code section entitled, "Certificates of Addition."[175] Within this newly proposed section, Congress could allow the patent holder to amend her patent at any time during the duration of the patent.[176] These certificates, filed by the patent holder, would put the world on notice of

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170. *Hilton*, 62 F.3d at 1535 (Newman, J., concurring).

171. *Id.* at 1536. Judge Newman said that "patent law places strong pressure on filing the patent application early in the development of the technology, often before the commercial embodiment is developed or all of the boundaries fully explored." *Id.*

172. In order to comprise the proposal that follows, the author consulted the statutes of many nations. The most helpful are from Algeria, Angola, Dominican Republic, Ecuador and France.

173. 35 U.S.C. § 251 (1988).

174. *Hilton*, 62 F.3d at 1536.

175. "Certificates of Addition" is a code section that appears in Angola's Industrial Property Act; Algeria's Ordinance No. 66-54 of March 3, 1966 Relating to Inventors' Certificates and Patents for Inventions; Ecuador's Patent Law; and France's Patent Law.

176. *See* People's Republic of Angola Industrial Property Act, ch. 2, art. 7 (1992), *reprinted in* 2B John P. Sinnot, World Patent Law and Practice (1994) [hereinafter Sinnot]; French Patent Law, ch. X, art. 62 (1968), *reprinted in* 2D Sinnot; Algeria's Ordinance No. 66-54 of March 3, 1966, Relating to Inventors' Certificates and Patents for Inventions, § 3, art. 16-17, *reprinted in* 2B Sinnot; Dominican Republic Patent Law No. 4994, art. 12 (1976), *reprinted in* 2C Sinnot.

many of the "unimportant and insubstantial changes and substitutions in the patent"[177] that develop after the current two year period for amendment elapses. Ecuador's Patent Law is the most clear and concise on this point even though it does not include the broad unlimited time for amendment. It reads in part:

SECTION V

Certificates of Addition

> Art. 33o. - Application may be made for a patent of addition in respect of an improvement, or modification of an invention for which a patent is, or has been applied for by the applicant.
>
> This concession, if given, will be granted for the unexpired term of the main patent.
>
> Art. 34o. - The application and procedure for these certificates are subjected to the same rules as stated for original patent.[178]

This proposed legislation would greatly limit the number of cases that arise involving the doctrine of equivalents because patent holders would have a larger opportunity to fully describe their inventions. Likewise, aspiring inventors would have ample notice of existing inventions in all their relevant forms. As a result, lawyers confronted with a case involving similar items would be able to review not only the original patent, but also a file containing numerous Certificates of Addition. All patent holders would be encouraged to file these certificates whenever they realized a slight change in the original patent. Should litigation unfortunately arise, these statutory guidelines would also aid the jury in reaching a just verdict by providing additional evidence. This additional evidence would provide the jury with all known and filed variations of the original patent. If the alleged infringing device mirrored either the original patent or any of the subsequent variations, then the jury would find for the plaintiff. In contrast, if the alleged infringing device in no way resembled the original pat-

177. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 607 (1950).

178. Ecuador Patent Law, Patents for Inventions & Exploitation Law, Section V (1977), *reprinted in* 2C Sinnot, *supra* note 176. Section V of Ecuador's Patent Law also contains Art. 35o. - Art. 39o. (a total of five more provisions) which have been excluded. Art. 35o. has been excluded in particular because, contrary to the proposed legislation, it lists a specific time frame in which amendments to a patent must be made.

ent or any of the variations on file, then the jury would find for the defendant. The flexibility of this framework would assure the jury's significant role in any infringements case.

However, despite its benefits, the proposed statutory framework does have potential problems. First, with more time to amend the original patent, litigants run the risk of further confusing some jurors. It is likely that patent holders will use this time to place as many different variations of the invention within the patent. After the judge dismisses the jury for deliberations, the voluminous patent (including all its amendments) would be given to the jury for review. Numerous studies have already shown that "jurors are very likely to misunderstand the issues raised during a patent infringement case."[179] Additionally, judges are generally "far better equipped to make accurate findings of fact in complicated cases than are lay juries" due mainly to "greater intelligence and better training, coupled with the ability to control the pace of the trial and to study transcripts and relevant documents outside the courtroom so as to maximize their ability to absorb the relevant facts."[180] With more facts mixed into an infringements case, a plaintiff runs the risk of overloading a juror with information. A likely result of this is an unfavorable rushed judgment which would not benefit either litigant. But, there are ways to assist jurors in understanding complex issues.[181] By adequately educating jurors during a trial with the detailed patent and its amendments, it is likely that they will ultimately be able to reach a fair and impartial decision.

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179. Jason Scully, Markman *and* Hilton Davis, *The Federal Circuit Strikes an Awkward Balance: The Roles of the Judge and Jury in Patent Infringement Suits*, 18 Hastings Comm. & Ent. L.J. 631, 645-46 (1996). In this section of his article, Mr. Scully refers to studies conducted by The Federal Judicial Center and The American Bar Association.

180. Martin J. Adelman, *The New World of Patents Created by the Court of Appeals for the Federal Circuit*, 20 U. Mich. J.L. Reform 979, 1004 (1987). To help support this point, Mr. Adelman tells an anecdote of a case where a judge arrived at his chambers early in the morning in order to read the previous day's transcript. *Id.*

181. *See* Scully, *supra* note 179, at 648-655. Among the seven listed ways, the four most practical seem to be: 1) allowing jurors to take notes during trial, 2) providing jurors with written instructions for deliberation, 3) allowing the use of neutral experts at trial, and 4) providing jurors with pretrial instructions on what issues will be discussed during trial. *Id.*

Secondly, the proposed statutory framework may place too much power into the hands of patent holders. With a clear legislative mandate to amend the original patent freely, patent holders are likely to file numerous amendments covering each new variation of their invention. If every potential variation on the original patent is described either in the original patent or in an amendment, there will be no way the patent holder can lose an equivalents lawsuit.

The irony is that by allowing so many amendments, Congress may actually thwart intellectual development. It is possible that some of the slight changes that are the subject of an amendment might really be new inventions in their own right. However, this concern can be cured either at the Patent and Trademark Office or early on in any ensuing litigation. Control over the issuing of amendments could be placed with trained experts at the Patent and Trademark Office who would determine whether or not the proposed amendment is really an amendment and not a new invention. Within the statute, Congress could also make the determination of these experts conclusive as to a patent amendment's validity. Therefore, if an amendment were issued, a current patent holder and subsequent inventors would not have to await judicial determination.

Even if Congress did not make the amendment issuer's determination conclusive, the *Markman* decision will assure a fast resolution of this concern. *Markman* held that the judge and not the jury is to determine the meaning of the claim. In making this determination, the judge will need to examine the original patent and all of its amendments. If the judge feels that one of the amendments is really not an "amendment" and is instead a new invention, the defective amendment will be excluded from the jury's consideration, and more importantly, from their deliberations. Therefore, with no existing patent or amendment mirroring the accused device, the jury may only conclude that there is no infringement. If the jury returns a verdict of infringement, the judge may overturn it as a verdict not supported by the evidence.

As jurors and judges become more technologically literate, it is likely that they will be better able to distinguish between slight changes in the original patent and new inventions. Thus, despite its drawbacks, it appears that the proposed statutory framework will assist jurors and judges alike by either, averting lawsuits alto-

gether, or providing enough evidence from which modern jurors and judges can more effectively determine an equivalents case. With the benefits of this proposal far outweighing the risks in not pursuing it, Congress should consider this legislation and approve of it accordingly as a needed change.

CONCLUSION

For well over a century and a half, juries have been interpreting claims under the doctrine of equivalents. This doctrine has been a potential safeguard for patent holders and an area of bewilderment for subsequent inventors. As technology continues to advance rapidly, better guidance is needed in order to assist juries in reaching verdicts.

With the creation of the Federal Circuit, Congress initiated a source of guidance for members of juries in infringement cases. The problem is that the Federal Circuit has not provided a solid foundation for jurors to follow due to its often seemingly conflicting opinions in key cases. In attempting to resolve conflicts involving the doctrine of equivalents, the Federal Circuit has not clearly defined the role of the jury in these highly technical patent infringement cases. The decision of the Supreme Court in *Markman* helps to compress the role of juries in patent litigation by taking an important issue away from the jury and placing it with the judge.

Although jury instructions are one way in which to offer the jury guidance on reaching a verdict, this is in essence too little, too late. Without a clear definition of the jury's role in a case involving the doctrine of equivalents and without knowing the boundaries of this doctrine itself, a better course of action is to attempt to avoid the litigation which invokes it.

Accordingly, this article has provided a statutory framework which assists patent holders and juries alike. For one, the patent holder will be able to accurately and effectively describe her invention as subtle improvements become apparent. This will in effect put would-be inventors on notice of other devices already in existence. More importantly, should litigation ensue, juries will have a wealth of evidence not only on the development of an allegedly infringing device, but also on the patent holder's device. Therefore, the ability of the jury to make an informed decision is greatly enhanced. The result of this enhancement is a more efficient administration of justice. The doctrine of equivalents is not perfect, but it

is workable. When the jury's role in an equivalents case is well-defined, the doctrine of equivalents' workability quotient is optimized.

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