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**Going for the Blue Ribbon:**

The Legality of Expert Juries in Patent Litigation

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I. INTRODUCTION

As patented technologies have become increasingly complex, there has been growing concern that ordinary jurors lack the ability to understand the scientific and technical issues in patent litigation. Although a court may call upon expert witnesses, special masters, and other means of facilitating comprehension, there are likely to be many patent-related cases in which the issues are so far beyond the training and intelligence of the jury that no rational fact-finding is possible. The legal practice literature reveals that trial attorneys are aware of, and consciously exploit, this weakness in the jury system.<sup>1</sup> As one experienced patent litigator has stated: “[a]lmost

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<sup>1</sup> See, e.g., Stephen C. Shear & William S. Galliani, *Post Allowance and Post Issuance Practice Before the United States Patent and Trademark Office as it Relates to Newly Discovered Prior Art*, in ELECTRONIC AND COMPUTER PATENT LAW, at 627, 670 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 292, 1990) (“A party which holds a patent on an invention which is deceptively simple may find it advisable to reinforce it through a [reexamination or reissue proceeding at the Patent and Trademark Office]. The Patent Office is more likely to objectively asses [sic] the merits of

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routinely, one party or the other strikes from the jury the most educated and experienced persons, so that routinely there is a conscious effort to get an unsophisticated, uninformed jury, one party hoping that jury will unwittingly give the party a windfall.”<sup>2</sup>

Many observers of complex litigation have proposed the use of “blue ribbon” — i.e., expert — juries as a way to restore fairness to the process and reduce the arbitrariness of results.<sup>3</sup> This technique may be

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the invention, as opposed to a jury which is likely to render a knee jerk reaction that ‘anyone could do that.’ On the other hand, a complex invention is likely to fare much better before a jury which will be inclined to view something as patentable if it cannot understand it.”); William F. Lee & Wayne L. Stoner, *The Role of Expert Witnesses on Liability Issues in Patent Litigation in Light of Markman v. Westview Instruments*, in WINNING STRATEGIES IN PATENT LITIGATION, at 647, 675-76 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 432, 1995) (discussing effect of Federal Circuit decision in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995), and attorneys’ abuse of pre-Markman rule which arguably “allowed counsel to legitimately ‘hoodwink’ the jury into finding that a patent covered the accused products, even where the patent claims, when ‘properly interpreted,’ clearly did not.”); Jeffrey G. Sheldon & Otto Lee, *Impact of Federal Circuit on Patent Litigation*, in PATENT LITIGATION 1993, at 879, 904-05 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 376, 1993) (discussing the relative benefits of trying the issue of infringement before a judge, as opposed to a jury: “it is believed that a jury is more likely to be impressed by arguments about an invention being stolen, whereas a judge will understand the importance of the Federal Circuit’s admonition that the doctrine of equivalents is the exception rather than the rule.”).

<sup>2</sup> Tom Arnold, *Why ADR?*, in PATENT LITIGATION 1999, at 1013, 1039 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 572, 1999).

<sup>3</sup> See, e.g., ALF K. BERLE & L. SPRAGUE DE DAMP, INVENTIONS AND THEIR MANAGEMENT 659 (1947); David B. Pieper, *The Appropriate Judicial Actor for Patent Interpretation: A Commentary on the Supreme Court’s Decision in Markman v. Westview Instruments, Inc.*, 51 ARK. L. REV. 159, 180 (1998) (proposing, in the patent context, a “jury of scientists skilled in the relevant art”); Gregory D. Leibold, *In Juries We Do Not Trust: Appellate Review of Patent-Infringement Litigation*, 67 U. COLO. L. REV. 623, 648-49 (1996) (proposing special juries in patent cases); Rita Sutton, *A More Rational Approach to Complex Civil Litigation in the Federal Courts: The Special Jury*, 1990 U. CHI. LEGAL F. 575 (1990); Franklin Strier, *The Educated Jury: A Proposal for Complex Litigation*, 47 DEPAUL L. REV. 49 (1997); Kristy Lee Bertelsen, *From Specialized Courts to Specialized*

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particularly beneficial in the patent infringement context. In fact, under certain circumstances, a blue ribbon panel is arguably the only realistic way to achieve a just result.

However, there are constitutional and statutory rules which may impose limits on the use of expert juries. This article examines some of these legal barriers, but also considers whether, in certain situations, a litigant in a patent case might legitimately claim a fundamental right to have its case heard by a jury of engineers or scientists. In addition, the article explores practical ways of selecting sufficiently skilled jurors for patent trials.

### II. TENSION BETWEEN THE RIGHT TO TRIAL BY JURY AND THE RIGHT TO DUE PROCESS

#### A. *Seventh Amendment Right to Trial by Jury, in General*

The Seventh Amendment to the U.S. Constitution preserves the right of trial by jury “[i]n Suits at common law.”<sup>4</sup> When determining the scope of this amendment, the courts have relied heavily upon English common law traditions in place at the time of the adoption of the amendment.<sup>5</sup> Of particular importance is the language “at common law,”

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*Juries: Calling for Professional Juries in Complex Civil Litigation*, 3 SUFFOLK J. TRIAL & APP. ADVOC. 1 (1998).

<sup>4</sup> U.S. CONST. amend. VII.

<sup>5</sup> See, e.g., *Ross v. Bernhard*, 396 U.S. 531, 533-34 (1970); *In re U.S. Financial Securities Litigation*, 609 F.2d 411, 421-22 (9<sup>th</sup> Cir. 1979); *ILC Peripherals Leasing Corp. v. International Business Machines Corp.*, 458 F.Supp. 423, 444 (N.D. Ca. 1978); *Bernstein v. Universal Pictures, Inc.*, 79 F.R.D. 59, 65 (S.D.N.Y. 1978) (“In the rare case in which a doubt might arise as to the right to a trial by jury, the traditional test has always been to make an historical analogy to the nearest common law remedy existing in 1791.”).

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which has been construed by the courts as limiting the reach of the amendment to suits involving legal, as opposed to purely equitable, rights.<sup>6</sup> Even after the procedural merger of law and equity, codified by the Federal Rules of Civil Procedure,<sup>7</sup> the substantive distinction between legal and equitable actions has persisted in the Seventh Amendment context. The determination of whether a suit is legal or equitable in nature is usually based upon the type of remedy sought. For example, injunctive relief is generally considered to be equitable in nature, and accordingly, if the plaintiff is seeking nothing but an injunction, the parties have no constitutional right to a jury.<sup>8</sup> In contrast, if damages are sought, each party has a right to a jury, since damages are considered an inherently legal remedy.<sup>9</sup> Even when an action involves both legal and equitable remedies, there is a right to a jury trial of the legal claims, except “‘under the most imperative circumstances . . . .’”<sup>10</sup>

### B. *Due Process and Jury Competence*

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<sup>6</sup> See, e.g., *Ross*, 396 U.S. at 533; *Financial Securities*, 609 F.2d at 421-22; *ILC Peripherals*, 458 F.Supp. at 444-45; *Bernstein*, 79 F.R.D. at 65-66.

<sup>7</sup> See Fed. R. Civ. P. 1 (“These rules govern the procedure in the United States district courts in all suits of a civil nature whether cognizable as cases at law or in equity . . . .”); Fed. R. Civ. P. 2 (“There shall be one form of action to be known as ‘civil action’.”).

<sup>8</sup> See *Railex Corp. v. Joseph Guss & Sons, Inc.*, 40 F.R.D. 119, 123 (D.D.C. 1966).

<sup>9</sup> See, e.g., *Dairy Queen, Inc. v. Wood*, 369 U.S. 469, 471-72, 476 (1962).

<sup>10</sup> *Id.* at 472-73 (quoting *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500, 510-11 (1959)).

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The Fifth Amendment to the U.S. Constitution guarantees that no person “shall . . . be deprived of life, liberty, or property, without due process of law . . . .”<sup>11</sup> The due process requirement has been extended to the states by the Fourteenth Amendment.<sup>12</sup> Juror competence can be a factor in determining whether the requirement has been satisfied, because a party in a legal action has a right to a minimum level of rationality on the part of the jury. For example, in *Sullivan v. Fogg*, a defendant who had been convicted in a state criminal trial sought a writ of habeas corpus after it became evident that one of the jurors “had been experiencing delusions or paranoid sensations during the trial.”<sup>13</sup> Although a psychiatrist appointed by the trial judge had concluded that the juror “was competent to make a rational judgment on the merits of the case,” the Second Circuit was unsatisfied because the defendant had not been given an opportunity to challenge the psychiatrist’s conclusion.<sup>14</sup> The federal appellate court, holding that “[d]ue process requires that jurors be sane and competent during trial,” remanded the case to the district court with instructions to grant the writ unless the state provided a new trial, or at least reopened the hearing on the sanity of the juror.<sup>15</sup>

The court’s constitutional objection in the above case was obviously based not on any particular dislike for insane people, but on a concern that the juror may have been unable to “make a rational judgment on the merits

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<sup>11</sup> U.S. CONST. amend. V.

<sup>12</sup> U.S. CONST. amend. XIV, § 1.

<sup>13</sup> *Sullivan v. Fogg*, 613 F.2d 465, 466 (2d Cir. 1980).

<sup>14</sup> *Id.*

<sup>15</sup> *Id.* at 467-68.

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of the case.” In other words, the fundamental principle at stake was that due process requires a jury that is capable of deciding its case rationally. Furthermore, although *Sullivan* was a criminal case, it is hard to believe that the court would have found the aforementioned juror improper in a criminal proceeding, yet acceptable in the context of a civil dispute. Whenever juries are employed, due process should give civil litigants, no less than criminal defendants, a right to be heard by jurors who are capable of rational decision-making.

### C. *Complexity Exception to the Seventh Amendment*

Some civil cases are so complex that it would be completely unrealistic to think that an ordinary jury could understand the issues well enough to return a rational verdict. In such cases, courts have struggled to find ways of taking the litigation out of the hands of the jury without ignoring the requirements of the Seventh Amendment. One approach has been to hold that extremely complex cases are equitable in nature, and are therefore outside the scope of the “common law” jury right. A different, less formalistic approach has been to directly confront the tension between meaningful due process and the limits of jurors’ intellectual abilities.

#### 1. *Complexity exception based on the distinction between law and equity*

In *Kirby v. Lake Shore & Mich. S. R. R. Co.*, decided before the merger of law and equity under the Federal Rules of Civil Procedure, the Supreme Court considered a complicated contract dispute involving allegations of fraud.<sup>16</sup> The plaintiff had not immediately discovered the alleged fraud, and was in danger of losing his claim due to the running of a

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<sup>16</sup> *Kirby v. Lake Shore & Mich. S. R. R. Co.*, 120 U.S. 130 (1887).

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statute of limitations.<sup>17</sup> Equity jurisdiction would delay the start of the statutory period until the discovery of the alleged fraud.<sup>18</sup> The court exercised equity jurisdiction based upon the complexity of the case:

The case . . . is clearly one of which a court of equity may take cognizance. The complicated nature of the accounts between the parties constitutes itself a sufficient ground for going into equity. It would have been difficult, if not impossible, for a jury to unravel the numerous transactions involved . . . and reach a satisfactory conclusion . . . . Justice could not be done except by employing the methods of investigation peculiar to courts of equity.<sup>19</sup>

Since the adoption of the Federal Rules, courts have continued to debate whether otherwise “legal” issues become equitable in nature if the issues are too complex for a jury to penetrate. The Supreme Court case of *Ross v. Bernhard*<sup>20</sup> has been influential in this area because of a brief comment in the opinion, arguably made in dictum. The case was a stockholders’ derivative suit in which the plaintiffs had demanded a jury trial.<sup>21</sup> Although the court ultimately concluded that the case involved legal claims, and therefore held that the plaintiffs had a right to a jury trial, the decision included a footnote which stated: “[a]s our cases indicate, the

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<sup>17</sup> *Id.* at 134-35.

<sup>18</sup> *Id.* at 136.

<sup>19</sup> *Id.* at 134.

<sup>20</sup> *Ross v. Bernhard*, 396 U.S. 531 (1970).

<sup>21</sup> *Id.* at 532.

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'legal' nature of an issue is determined by considering, first, the pre-merger custom with reference to such questions; second, the remedy sought; and, third, the practical abilities and limitations of juries."<sup>22</sup> Lower courts have seized upon the phrase "the practical abilities and limitations of juries" for rule-making, commentary, and criticism.

The U.S. District Court for the Southern District of New York adopted the complexity basis for equity jurisdiction in *Bernstein v. Universal Pictures, Inc.*, a highly complicated class action involving antitrust and copyright issues.<sup>23</sup> While recognizing that the third prong of the "test" of *Ross* was "devoid of cited authority,"<sup>24</sup> the district court held that "consideration of the 'practical abilities and limitations of juries' . . . is actually the restatement of the Court's traditional equity powers."<sup>25</sup> The *Bernstein* court based its holding upon English and U.S. tradition, including the *Kirby* case discussed above.<sup>26</sup>

The Ninth Circuit, however, expressly rejected this doctrine in a complex securities case, *In re U.S. Financial Securities Litigation*.<sup>27</sup> In discussing the "Ross Test," the court stated:

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<sup>22</sup> *Id.* at 538 n.10.

<sup>23</sup> *Bernstein v. Universal Pictures, Inc.*, 79 F.R.D. 59 (S.D.N.Y. 1978).

<sup>24</sup> *Id.* at 66.

<sup>25</sup> *Id.* at 67.

<sup>26</sup> *Id.* at 67-70 (citing *Kirby v. Lake Shore & Mich. S. R. R. Co.*, 120 U.S. 130, 134 (1887)).

<sup>27</sup> *In re U.S. Financial Securities Litigation*, 609 F.2d 411 (9<sup>th</sup> Cir. 1979).



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While it is unclear as to what was meant by the inclusion of the third factor, we do not believe that it stated a rule of constitutional dimensions. After employing an historical test for almost two hundred years, it is doubtful that the Supreme Court would attempt to make such a radical departure from its prior interpretation of a constitutional provision in a footnote.<sup>28</sup>

The rule of *Financial Securities* was adopted by the Eastern District of Michigan, in *Kian v. Mirro Aluminum Co.*<sup>29</sup> However, *Financial Securities* is subject to the criticism that the Ninth Circuit relegated *Kirby* to a very brief mention in a footnote<sup>30</sup> and declined to engage in any meaningful discussion of the Supreme Court case. The *Kian* opinion does not even mention *Kirby*.<sup>31</sup> In fact, since it is difficult to reconcile *Financial Securities* and *Kian* with this Supreme Court precedent, one might reasonably argue that the lower court cases were wrongly decided on the equity jurisdiction issue.

### 2. Complexity exception based on Due Process

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<sup>28</sup> *Id.* at 425 (citing *Ross v. Bernhard*, 396 U.S. 531, 538 n.10 (1970)).

<sup>29</sup> *Kian v. Mirro Aluminum Co.*, 88 F.R.D. 351, 352, 355 (E.D. Mich. 1980).

<sup>30</sup> *Financial Securities*, 609 F.2d at 417 n.14 (citing *Kirby v. Lake Shore & Mich. S. R. R. Co.*, 120 U.S. 130, 134 (1887)).

<sup>31</sup> *Kian*, 88 F.R.D. at 351.

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As discussed above with respect to the case of the insane juror,<sup>32</sup> due process is violated by a jury incapable of rendering a rational verdict. This general principle was adopted by the Third Circuit in a complex antitrust case, *In re Japanese Electronic Products Antitrust Litigation*.<sup>33</sup> The court first expressly declined to recognize complexity as a basis of equitable jurisdiction, distinguishing *Kirby*, among other cases, on the ground that such cases have involved “relief in the form of an [equitable] accounting between the parties.”<sup>34</sup> However, the court then held that in a jury trial, due process requires a jury capable of making rational decisions, a requirement which is unsatisfied when the jurors are incapable of understanding the evidence and the legal rules.<sup>35</sup> The court acknowledged a potential conflict between the right to due process and the right to a jury trial:

If a particular lawsuit is so complex that a jury cannot satisfy this requirement of due process but is nonetheless an action at law, we face a conflict between the requirements of the fifth and seventh amendments. In this situation, we must balance the constitutionally protected interest[s], as they are implicated in this particular context,

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<sup>32</sup> See *supra* text accompanying notes 13-15.

<sup>33</sup> *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069 (3d Cir. 1980).

<sup>34</sup> *Id.* at 1080 (citing *Kirby v. Lake Shore & Mich. S. R. R. Co.*, 120 U.S. 130 (1887)).

<sup>35</sup> *Id.* at 1084.

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and reach the most reasonable accommodation between the two constitutional provisions.<sup>36</sup>

The court resolved this conflict by recognizing a complexity exception to the Seventh Amendment, holding that a jury trial should not be granted when “a jury will not be able to perform its task of rational decisionmaking with a reasonable understanding of the evidence and the relevant legal standards.”<sup>37</sup> However, the court stressed that a jury trial should be denied “only in exceptional cases,” and only after consideration of the feasibility of “special trial techniques to increase [the] jury’s capabilities [and] reduc[e] the suit’s complexity.”<sup>38</sup> Techniques suggested by the court included “severance of multiple claims” and “thoughtful use of the procedures suggested in the Manual for Complex Litigation.”<sup>39</sup>

The Ninth Circuit reached the opposite conclusion in the *Financial Securities* case discussed above.<sup>40</sup> In support of its holding that due process requires no complexity exception to the Seventh Amendment, the court noted various techniques by which complex cases can be rendered more understandable, and asserted that the due process argument

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<sup>36</sup> *Id.* (citing *Gannett Co., Inc. v. DePasquale*, 443 U.S. 368 (1979); *Nebraska Press Ass’n v. Stuart*, 427 U.S. 539 (1976)).

<sup>37</sup> *Id.* at 1086.

<sup>38</sup> *Id.* at 1088-89.

<sup>39</sup> *Id.* at 1088 (citing *MANUAL FOR COMPLEX LITIGATION* (West Pub. Co. ed., 1977)).

<sup>40</sup> *In re U.S. Financial Securities Litigation*, 609 F.2d 411 (9<sup>th</sup> Cir. 1979). *See also supra* text accompanying notes 27-28.

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“unnecessarily and improperly demeans the intelligence of the citizens of this Nation.”<sup>41</sup> In its conclusion, the court stated: “we do not believe that any case is so overwhelmingly complex that it is beyond the abilities of a jury.”<sup>42</sup> This reasoning and conclusion were expressly adopted by the Eastern District of Michigan in *Kian*.<sup>43</sup>

With respect to the circuit split on this issue, I submit that the Third Circuit has the better argument. As noted in the Introduction, practicing lawyers know that certain issues are beyond the abilities of ordinary jurors. The Ninth Circuit’s statements to the contrary, while having political and emotional appeal, seem either naive or disingenuous. On the other hand, the Third Circuit, in mentioning “special trial techniques,” failed to specifically consider the important alternative solution of selecting more knowledgeable jurors, an option which is discussed in the following section.

### III. SPECIAL JURIES

The above-described tension between the Seventh and Fifth Amendments<sup>44</sup> might be resolved if courts were to empanel juries sufficiently knowledgeable and intelligent to comprehend and analyze the issues in complex litigation. One means of accomplishing this would be to require jurors to possess a heightened level of education, perhaps even specialized expertise in fields of knowledge critical to the understanding of the case. Expert juries have had a long history in U.S. and English

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<sup>41</sup> *Financial Securities*, 609 F.2d at 427-30, 432.

<sup>42</sup> *Id.* at 432.

<sup>43</sup> *Kian v. Mirro Aluminum Co.*, 88 F.R.D. 351, 355 (E.D. Mich. 1980).

<sup>44</sup> See discussion *supra* Part II.

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jurisprudence. However, there may be legal barriers to the use of such juries in federal cases.

### A. *History of Special Juries in English and U.S. Federal Jurisprudence*

The scope of the right to a jury has generally been interpreted based upon the history of the jury in England and America up to the time of adoption of the Seventh Amendment in 1791.<sup>45</sup> It is therefore relevant that expert juries have had a long history in England. Trade disputes represent one type of case which was sometimes heard by a jury of specialists. The practice goes back at least to the fourteenth century,<sup>46</sup> and was in use during the centuries immediately preceding the American Revolution. For example, in 1645, the King's Bench used a jury of merchants to try a mercantile issue, "[b]ecause it was conceived they might have better knowledge of the matters in difference which was to be tryed, than others could, who were not of that Profession."<sup>47</sup> Lord Mansfield is reported to have regularly empaneled a jury of merchants to try cases in their area of expertise.<sup>48</sup> An English statute of 1730 "authorized and required" courts to empanel a special jury upon the motion of either party.<sup>49</sup> In addition, at least one federal court in the U.S. has used a special jury in

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<sup>45</sup> See, e.g., *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 376 (1996).

<sup>46</sup> See Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40, 41-42 (1902).

<sup>47</sup> WILLIAM STYLE, *STYLES'S PRACTICAL REGISTER* 335 (1707).

<sup>48</sup> See J. H. Beuscher, *Use of Experts by the Courts*, 54 HARV. L. REV. 1105, 1109 (1941).

<sup>49</sup> 3 Geo. 2, ch. 25, § 15 (1730) (Eng.).

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a mercantile case, and such juries were sometimes empaneled for other cases as well.<sup>50</sup> The early cases therefore appear to support the constitutionality of blue ribbon juries.

However, one problem with applying very old precedent to highly exclusive juries in modern cases is that a lot has happened in this country since 1791, most notably the passage of the Fourteenth Amendment. The Equal Protection Clause of the Fourteenth Amendment has been held applicable to the federal government by incorporation into the Due Process Clause of the Fifth Amendment.<sup>51</sup> As discussed in further detail below, the Equal Protection Clause has been held to require that juries be drawn from a “fair cross section” of the community.<sup>52</sup> If expert juries are constitutionally infirm under the fair cross section requirement, then the Fourteenth Amendment must overrule any pre-1868 precedent to the contrary. In other words, the range of acceptable jury composition can be no broader than permitted under Fourteenth Amendment jurisprudence. Accordingly, the historical argument in favor of special juries cannot alter the result of the modern “fair cross section” cases. As discussed in the

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<sup>50</sup> *See, e.g.*, *Peisch v. Dickson*, 19 F.Cas. 123, 125 (C.C.D. Mass. 1815) (noting that the case had been tried before a special jury, with the consent of the parties, and also noting the prevalence of special juries in pre-Revolutionary Massachusetts); *Harvey v. Richards*, 11 F.Cas. 746, 746 n.2 (C.C.D. Mass. 1815) (special jury used, by consent of the parties, in an estate case, in which the court noted that “[t]he practice of summoning special juries appears, from the records of our courts, to have been early prevalent in Massachusetts . . . but it has been long disused . . .”).

<sup>51</sup> *See, e.g.*, *Crawford v. U.S. Trustee*, 194 F.3d 954, 960-61 (9<sup>th</sup> Cir. 1999) (citing *Bolling v. Sharpe*, 347 U.S. 497, 499 (1954)).

<sup>52</sup> *See infra* text accompanying notes 54-66.

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next section, these cases leave room for lingering uncertainty regarding the constitutionality of highly educated juries in the federal courts.<sup>53</sup>

### B. *The “Fair Cross Section” Requirement*

A jury must be drawn from a “fair cross section” of the community.<sup>54</sup> Courts have based this requirement on the Equal Protection Clause of the Fourteenth Amendment,<sup>55</sup> the supervisory power of the federal courts,<sup>56</sup> and the Sixth Amendment.<sup>57</sup> In addition, the requirement has been incorporated into the federal jury selection statutes.<sup>58</sup> If a particular group is improperly excluded from the jury pool, one need not be a member of the excluded group to have standing to challenge the jury selection process.<sup>59</sup> However, there is no impropriety unless the persons

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<sup>53</sup> See *infra* text accompanying notes 54-65.

<sup>54</sup> U.S. v. Butera, 420 F.2d 564, 567 (1<sup>st</sup> Cir. 1970).

<sup>55</sup> See, e.g., Barber v. Ponte, 772 F.2d 982, 984 (1<sup>st</sup> Cir. 1985).

<sup>56</sup> See, e.g., Butera, 420 F.2d at 568; Barber, 772 F.2d at 984.

<sup>57</sup> See, e.g., Duren v. Missouri, 439 U.S. 357, 364 (1979) (citing Taylor v. Louisiana, 419 U.S. 522, 531 (1975)).

<sup>58</sup> See 28 U.S.C.A. § 1861 (West 1999) (“[A]ll litigants in Federal courts entitled to trial by jury shall have the right to grand and petit juries selected at random from a fair cross section of the community in the district or division wherein the court convenes.”); see also U.S. v. Kleifgen, 557 F.2d 1293, 1295-97 (9<sup>th</sup> Cir. 1977) (applying § 1861 to selection of a grand jury).

<sup>59</sup> See, e.g., U.S. v. Cabrera-Sarmiento, 533 F.Supp. 799, 804 (S.D. Fla. 1982); U.S. v. Guzman, 337 F.Supp. 140, 142 (S.D.N.Y. 1972).

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excluded constitute a “cognizable group” for the purposes of jury selection under the Constitution and the statute.<sup>60</sup>

One might suspect that the test for cognizability would depend upon whether a fair cross section challenge is based upon the Equal Protection Clause, the supervisory power, the Sixth Amendment, or the federal jury statutes. There appears to be no definitive rule on this issue. However, in evaluating suspect groups, the cases have tended not to distinguish among the various possible bases for a jury composition challenge. For example, courts have assessed cognizability simultaneously under Equal Protection and the Sixth Amendment,<sup>61</sup> and also simultaneously under the jury statutes and the Sixth Amendment.<sup>62</sup> To demonstrate that a group is cognizable, the challenger must generally show that (1) the group is identifiably defined by some common factor, (2) the group has cohesion, i.e., a basic similarity in attitudes, ideas, or experience, and (3) exclusion of the group will prevent the group’s interests from being adequately represented.<sup>63</sup>

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<sup>60</sup> See, e.g., *U.S. v. Potter*, 552 F.2d 901, 903-05 (9<sup>th</sup> Cir. 1977); *Kleifgen*, 557 F.2d at 1296; *Cabrera-Sarmiento*, 533 F.Supp. at 804; *Guzman*, 337 F.Supp. at 143-45.

<sup>61</sup> See, e.g., *Cabrera-Sarmiento*, 533 F.Supp. at 807 (“[T]he first two prongs of the sixth amendment test [(1) distinctiveness/cognizability and (2) underrepresentation)] . . . are the same as the equal protection test . . .”).

<sup>62</sup> See, e.g., *U.S. v. Test*, 550 F.2d 577, 584 (10<sup>th</sup> Cir. 1976) (holding the statutory “fair cross section” standard to be the “functional equivalent” of the constitutional “reasonably representative” standard); *id.* at 585-86, 591 (considering cognizability without distinguishing among statutory challenge and constitutional challenges).

<sup>63</sup> See, e.g., *Guzman*, 337 F.Supp. at 143-44; *Potter*, 552 F.2d at 904 (citing *Guzman*, 337 F.Supp. at 143-44); *Willis v. Zant*, 720 F.2d 1212, 1216 (11<sup>th</sup> Cir. 1983); *Test*, 550 F.2d at 591; *Barber v. Ponte*, 772 F.2d 982, 986 (1<sup>st</sup> Cir. 1985); see also *Kleifgen*, 557 F.2d at 1296 (requiring cognizable groups to be identifiable and classifiable, and to have “internal cohesion”).



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Selecting a special jury of people with a high level of education raises the issue of whether such a panel would violate the fair cross section requirement. Federal courts in the Ninth Circuit and Florida have held that less educated persons are not a cognizable group, although the groups at issue in those cases specifically comprised people with less than a high-school education.<sup>64</sup> In contrast, the First Circuit has held the less educated to be a cognizable group, although the case in question involved discrepancies at both the high school and college level.<sup>65</sup> At the very least there is a great deal of uncertainty surrounding this issue.

Furthermore, in order to provide an effective solution to the problems inherent in complex patent trials, special juries would probably be required to consist primarily of people with at least four years of higher education. In fact, it might even be necessary to limit participation to those with backgrounds in engineering or science. Even if it were undisputedly permissible to establish a minimum education requirement, it is quite possible that a court would be unwilling to stretch this principle so broadly as to validate a specialized jury consisting solely of engineers, or even of college-educated people. On the other hand, an excluded group consisting of, for example, all adults except engineers would surely fail the second and third prongs of the above-described test for cognizability. The excluded group would have almost no cohesion, and it is hard to imagine that a jury of engineers would be biased against members of all other occupations.

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<sup>64</sup> See, e.g., *Kleifgen*, 557 F.2d at 1296 (“[L]ess educated people [(specifically non-high school graduates) do not] comprise a cognizable group.”); *Potter*, 552 F.2d at 905 (less educated people (high school or less) not a cognizable group); *Cabrera-Sarmiento*, 533 F.Supp. at 804 (“persons with less than a high school education” not a cognizable group).

<sup>65</sup> *U.S. v. Butera*, 420 F.2d 564, 571 (1<sup>st</sup> Cir. 1970) (finding the less educated to be a cognizable group in the context of a jury pool containing much higher percentages of high school and college graduates than the general population).

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Requiring a college education in complex cases would automatically exclude most people under the age of 21, which raises the additional question of whether exclusion of the young is permissible. The federal case law indicates that adults under 21, adults under 30, and even adults under 34 do not constitute cognizable groups.<sup>66</sup> Therefore, since even most graduate programs can be completed by the age of 30, the issue of juror age is unlikely to further complicate the issue of juror education.

### *C. Use of Special Juries in State Courts*

A number of states have had a tradition of using special juries in complex or highly publicized cases. For example, until 1965, New York had a special jury statute on the books.<sup>67</sup> The statute authorized a trial court to grant a motion for a special jury in any criminal or civil case which was sufficiently “important,” intricate, or widely publicized to warrant such a jury.<sup>68</sup> The New York code also contained special provisions for the selection of grand juries until these provisions were repealed in 1978.<sup>69</sup> In the mid-1960s, New Jersey employed a grand jury selection system which

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<sup>66</sup> See *Guzman*, 337 F.Supp. at 145 (persons 18 to 21 years of age not a cognizable group); *Cabrera-Sarmiento*, 533 F.Supp. at 804 (adults under 30 years of age not a cognizable group); *Barber v. Ponte*, 772 F.2d 982, 996, 998, 1000 (1<sup>st</sup> Cir. 1985) (deciding, on rehearing, that “young adults,” defined as persons 18 to 34 years of age, are not a cognizable group).

<sup>67</sup> N.Y. JUD. LAW § 749-aa (repealed 1965) (McKinney 1999).

<sup>68</sup> See generally *People v. Blanchfield*, 45 Misc.2d 536, 538 (N.Y. Sup. Ct. 1965) (applying, but criticizing, the special jury statute).

<sup>69</sup> N.Y. JUD. LAW § 609 (repealed 1978) (McKinney 1999).

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favored highly educated jurors.<sup>70</sup> Delaware currently has a statute authorizing a court to grant a request for a special jury in any “complex” civil case.<sup>71</sup> Such juries can be subject to specific requirements of intelligence, education, or occupation.<sup>72</sup> The decision of whether to grant a special jury request is left to the discretion of the trial judge.<sup>73</sup> In Colorado, for certain water drainage district cases, a statute mandates the use of special juries of landowners knowledgeable about farm drainage.<sup>74</sup>

Such laws have generally withstood state and federal constitutional scrutiny.<sup>75</sup> In particular, courts repeatedly declined to strike down the New York special jury statute, and this law persisted until it was repealed by the state legislature in 1965.<sup>76</sup> Similarly, the exclusive grand jury selection

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<sup>70</sup> See, e.g., *State v. Rochester*, 105 N.J.Super. 529, 553-54 (N.J. Super. Ct. Law Div. 1967).

<sup>71</sup> DEL. CODE ANN. tit. 10, § 4506 (1999) (“The Court may order a special jury upon the application of any party in a complex civil case. The party applying for a special jury shall pay the expense incurred by having a special jury, which may be allowed as part of the costs of the case.”).

<sup>72</sup> See *Haas v. United Technologies Corp.*, 450 A.2d 1173, 1185 (Del. 1982) (suggesting, to a lower court, that special juries be composed of people meeting specified requirements of age, intelligence, education (e.g., a bachelor’s degree), and occupation).

<sup>73</sup> See *In re Asbestos Litigation*, 551 A.2d 1296, 1297 (Del. Super. Ct. 1988) [hereinafter *Asbestos I*].

<sup>74</sup> COLO. REV. STAT. ANN. § 37-23-104(1) (West 1999).

<sup>75</sup> See, e.g., *Haas*, 450 A.2d at 1183.

<sup>76</sup> See, e.g., *U.S. ex rel. Torres*, 427 F.2d 168, 169 (2d Cir. 1970) (upholding validity of former statute, without substantive comment on defendant’s allegations of excessively educated and wealthy special jury); *People v. Jackson*, 20 N.Y.2d 440, 456 (N.Y. 1967) (“[W]e have consistently refused to find [N.Y. Jud. Law § 749-aa] unconstitutional . . .”); *U.S. ex rel.*

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systems of New York and New Jersey, in which less educated and “blue collar” jurors were under-represented, were also upheld in court.<sup>77</sup> An older version of the Delaware statute, which created a right to a special jury on demand, was upheld in the face of both federal and state constitutional challenges.<sup>78</sup> However, courts applying Delaware’s current statute—which allows judicial discretion—have tended to require a high level of complexity to justify the granting of special jury requests.<sup>79</sup> There appear to have been no challenges to the validity of the Colorado statute.

The long and continuing tradition of special juries in state courts might be viewed as implying that the legal definition of “jury” should encompass an expert panel. However, the cases involving state special jury statutes may not be directly applicable to federal trials. A crucial distinguishing factor is that none of the aforementioned state cases have

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Fein v. Deegan, 298 F.Supp. 359, 366 (S.D.N.Y. 1967). *But see* Schuster v. City of New York, 25 Misc.2d 670, 677-84 (N.Y. Sup. Ct. 1960) (citing widespread criticism of statute, in denying motion for special jury under the circumstances of the case).

<sup>77</sup> *See, e.g.,* U.S. *ex rel.* Chestnut v. Criminal Court of New York, 442 F.2d 611, 614-19 (2d Cir. 1971) (under-representation of “blue collar” workers on New York grand juries does not violate the Due Process or Equal Protection Clauses of the Fourteenth Amendment); *State v. Rochester*, 105 N.J. Super. 529, 554 (N.J. Super. Ct. Law Div. 1967) (“I think that legally in the discretion of the jury commissioners a higher education standard can be used for the selection of persons to serve on the grand jury.”).

<sup>78</sup> *See, e.g., Haas*, 450 A.2d at 1180-84 (reviewing special jury trial and finding no state or federal constitutional violation where statistical evidence of exclusion of “women and young people” was insufficient to show “intentional and systematic exclusion”).

<sup>79</sup> *See, e.g.,* *Bradley v. A.C.&S. Co., Inc.*, 1989 WL 70834, at \*4 (Del. Super. Ct. May 23, 1989) (denying motion for special jury, because of insufficient complexity); *Noramco (Delaware), Inc. v. Carew Assoc., Inc.*, 1990 WL 199509, at \*1-2 (Del. Super. Ct. Nov. 29, 1990) (insufficient complexity); *Amoroso v. Joy Manufacturing Co.*, 1987 WL 26911, at \*3 (Del. Super. Ct. Aug. 31, 1987) (insufficient complexity); *In re Asbestos Litigation*, 1988 WL 77737, at \*2 (Del. Super. Ct. Sep. 9, 1988) [hereinafter *Asbestos II*] (insufficient complexity).

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expressly addressed the issue of whether less educated people constitute a cognizable group under the fair cross section requirement. In contrast, as discussed in detail above, the cognizability of the less educated is of special importance in the federal courts.<sup>80</sup> The state statutes obviously implicate juror background and education. Yet, the jurisprudence surrounding these statutes appears, strangely enough, to have developed almost independently of the federal case law applying the fair cross section requirement to educational credentials.

Furthermore, the Seventh Amendment has been held inapplicable to the states,<sup>81</sup> and as a result, the bounds of the federal jury right may be subject to constraints which do not affect state juries. Consequently, precedent establishing the permissibility of state special juries is no guarantee that such juries are constitutional in federal court.

### D. *Is There a Constitutional Right to a State Special Jury?*

In two asbestos-related cases, *Bradley v. A.C.&S. Co., Inc.* (not officially reported)<sup>82</sup> and *In re Asbestos Litigation (Asbestos I)*<sup>83</sup>, litigants in Delaware state court attempted to obtain expert juries as a matter of right. The defendants in *Bradley* based their claim on the Due Process Clause of the Fourteenth Amendment, arguing that in order for the court to provide a fair trial, the jury “must be able to decide the facts in an informed

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<sup>80</sup> See *supra* text accompanying notes 54-66.

<sup>81</sup> See *Haas v. United Technologies Corp.*, 450 A.2d 1173, 1183 (Del. 1982).

<sup>82</sup> *Bradley v. A.C.&S. Co., Inc.*, 1989 WL 70834 (Del. Super. Ct. May 23, 1989).

<sup>83</sup> *Asbestos I*, 551 A.2d 1296 (Del. Super. Ct. 1988).

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and capable manner and must be a competent and rational fact finder.”<sup>84</sup> The court rejected this argument. Unlike cases such as *Japanese Electronic Products*, which could be “truly considered complex,” the asbestos tort action raised issues which did not appear too difficult for an ordinary jury to resolve.<sup>85</sup> Of particular relevance was the possibility of aiding the jury by means such as additional instructions, special verdicts, special interrogatories, juror note-taking, transcripts, summaries and charts, special masters, and court-appointed experts.<sup>86</sup> In addition, the court expressed concern that a panel of expert jurors might be slanted toward a single philosophical approach.<sup>87</sup>

*Asbestos I* involved a special jury motion based on the “trial by jury” provision of the Delaware Constitution.<sup>88</sup> The defendants contended that this provision conferred an absolute right to trial by special jury.<sup>89</sup> Analyzing the provision in light of the history of juries in England and Delaware, the court concluded that there was no such right under the state

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<sup>84</sup> *Bradley*, 1989 WL 70834, at \*1.

<sup>85</sup> *Id.* at \*2-3 (distinguishing case at bar from *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069 (3d Cir. 1980)).

<sup>86</sup> *Id.* at \*2.

<sup>87</sup> *Id.* at \*3.

<sup>88</sup> *Asbestos I*, 551 A.2d at 1296.

<sup>89</sup> *Id.*

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constitution, and that the choice of whether to create such a right was within the discretion of the state legislature.<sup>90</sup>

One might interpret the above-described Delaware cases as an indication that judges will be reluctant to recognize a fundamental right to an expert jury. However, the cases include important limitations which reduce their applicability to extremely complex federal trials. For example, as mentioned above, the *Bradley* opinion expressly distinguishes that case from more complicated cases such as *Japanese Electronic Products*. This suggests that even if the opinion were officially reported, any ruling on the broader constitutional issues might not be applicable to “truly complex” cases. As for *Asbestos I*, that case involved a state constitutional claim, which of course renders it of limited relevance in the federal context.

Furthermore, the due process issue must be analyzed differently in federal trials. This is because state civil cases lack a critical issue which is present in federal cases: the federal right to a jury trial. As mentioned in the preceding section,<sup>91</sup> the Seventh Amendment does not bind the states, and consequently, cases defining the federal jury right are not applicable to state trials.<sup>92</sup> The scope of the state jury right is based upon the traditions of the courts of the particular state, and since the time of the Revolution, these traditions are likely to have developed differently from those of the federal courts.<sup>93</sup> For example, a state jury right in civil trials might be either

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<sup>90</sup> *Id.* at 1296-1299.

<sup>91</sup> *See supra* text accompanying note 81.

<sup>92</sup> *See Haas v. United Technologies Corp.*, 450 A.2d 1173, 1183 (Del. 1982).

<sup>93</sup> *See, e.g., Haas*, 450 A.2d at 1182-83 (citing *Nance v. Rees*, 161 A.2d 795 (Del. 1960), and discussing the history of special juries in England before 1776, and in Delaware after the Revolution); *Asbestos I*, 551 A.2d at 1296-1300 (similar

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much weaker or much stronger than the corresponding federal right, which would affect how easily the state right could be trumped by due process considerations. Alternatively, certain state constitutions might create an absolute right to a special jury on demand (although this was unsuccessfully argued in Delaware court by the *Asbestos I* defendants). Finally, the state might have an extremely strong tradition of using only ordinary juries, in which case a request for an expert jury would be unusually difficult to defend. Accordingly, considering that the state and federal jury rights may differ substantially, the tension between the federal right to due process and the federal right to a jury trial is best analyzed under the federal case law.

### IV. APPLICATION OF JURY-SELECTION JURISPRUDENCE TO PATENT CASES

#### A. *The Right to Trial by Jury in Patent Litigation*

##### 1. *Equitable Versus Legal Actions, in General*

One whose patent is infringed can bring an action seeking injunction, actual damages, and/or enhanced damages of up to three times the amount of actual harm.<sup>94</sup> As in other types of civil litigation, the Seventh Amendment right to trial by jury in patent litigation depends upon whether the nature of the action is legal or equitable. An action for damages comes within the scope of the amendment, because damages are considered to be an inherently legal remedy.<sup>95</sup> In contrast, injunctive relief

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discussion).

<sup>94</sup> See 35 U.S.C.A. §§ 283, 284 (West 2000).

<sup>95</sup> See *In re Lockwood*, 50 F.3d 966, 972, 976 (Fed. Cir. 1995).



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is equitable in nature.<sup>96</sup> Enhanced or treble damages are also considered equitable relief,<sup>97</sup> although they are, of course, related to the legal remedy of actual damages. When the patentee seeks both legal and equitable relief, the trial court must honor a demand for a jury trial on factual questions raised by the legal claims.<sup>98</sup>

An alleged infringer may seek a declaratory judgment that its activities are noninfringing, or that the patent at issue is invalid or unenforceable. A declaratory judgment action may not involve a claim for damages, which raises the question of whether a trial court must honor a jury demand in such a case. This issue was resolved by the Federal Circuit in the case of *In re Lockwood*.<sup>99</sup> Although the case had started as a patent infringement action for damages and injunction, the only remaining claim was the alleged infringer's counterclaim for a declaration of

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<sup>96</sup> See, e.g., *Lockwood*, 50 F.3d at 976; *Choat v. Rome Industries, Inc.*, 467 F.Supp. 378, 381 (N.D. Ga. 1979); *Raillex Corp. v. Joseph Guss & Sons, Inc.*, 40 F.R.D. 119, 123 (D.D.C. 1966).

<sup>97</sup> See, e.g., *S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.*, 781 F.2d 198, 201 (Fed. Cir. 1986) (“The measure of [enhanced] damages . . . provides an opportunity for the trial court to balance equitable concerns . . . .”); *Beatrice Foods Co. v. New England Printing and Lithographing Co.*, 899 F.2d 1171, 1176 (Fed. Cir. 1990) (“[On remand, the district court] may give consideration to [the plaintiff’s] request that its actual damages be multiplied, as authorized by 35 U.S.C. § 284, and may in its equitable discretion grant said request . . . .”).

<sup>98</sup> See, e.g., *Choat v. Rome Industries, Inc.*, 467 F.Supp. 378, 381 (N.D. Ga. 1979); *Radial Lip Machine, Inc. v. International Carbide Corp.*, 76 F.R.D. 224, 226 (N.D. Ill. 1977); see also *Lockwood*, 50 F.3d at 972 (“[T]he district court must honor a jury demand to the extent that disputed issues of fact concerning [legal] rights and remedies require a trial.”).

<sup>99</sup> *Lockwood*, 50 F.3d at 966.

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invalidity.<sup>100</sup> The issue before the Court of Appeals was whether the trial court had improperly struck the patentee's jury demand.<sup>101</sup>

To determine whether the action for a declaratory judgment of invalidity was equitable or legal in nature, the court compared the claim to other actions historically brought before courts of law and equity.<sup>102</sup> The Federal Circuit decided that the declaratory judgment action was most analogous to an ordinary patent infringement action in which the affirmative defense of invalidity had been pled.<sup>103</sup> Since infringement actions had traditionally afforded the patentee the choice of either legal or equitable remedies, the court concluded that validity itself was not a purely equitable issue, and that the jury demand must therefore be reinstated.<sup>104</sup>

In light of the foregoing discussion, it is apparent that most types of patent-related cases, with the notable exception of actions seeking nothing but injunctive relief, are considered inherently legal in nature, and therefore implicate the jury right.

### *2. The Seventh Amendment Complexity Exception in Patent Cases*

My research has uncovered no Federal Circuit patent cases expressly ruling on the complexity exception. However, the court has

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<sup>100</sup> *Id.* at 968-69.

<sup>101</sup> *Id.* at 971.

<sup>102</sup> *Id.* at 971-80.

<sup>103</sup> *Id.* at 974.

<sup>104</sup> *Id.* at 980.

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strongly suggested that it would not recognize such an exception. In the famous case of *Markman v. Westview Instruments*, the Federal Circuit heard an appeal of a J.N.O.V. of noninfringement issued by a district court.<sup>105</sup> The lower court judge had held construction of the claims of a patent to be a matter of law for the court.<sup>106</sup> Under the trial judge's interpretation of the patent claims, the jury's verdict of infringement could not possibly have been correct, and the district court had therefore granted the defendant's motion for judgment as a matter of law.<sup>107</sup> The Federal Circuit affirmed, holding that even in a case tried before a jury, claim construction is indeed a matter of law reserved exclusively for the court.<sup>108</sup>

Judge Mayer, in a concurring opinion, criticized the majority's holding as excluding the jury from the most important fact-finding decision of most patent cases: "this is not just about claim language, it is about ejecting juries from infringement cases. All these pages and all these words cannot camouflage what the court well knows: to decide what the claims mean is nearly always to decide the case."<sup>109</sup> Judge Mayer added: "[t]oday's decision also threatens to do indirectly what we have declined to do directly, that is, create a 'complexity exception' to the Seventh

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<sup>105</sup> *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970 (Fed. Cir. 1995) [hereinafter *Markman I*].

<sup>106</sup> *Id.* at 973.

<sup>107</sup> *Id.*

<sup>108</sup> *Id.* at 970-71, 979.

<sup>109</sup> *Id.* at 989 (Mayer, J., concurring in the judgment).

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Amendment for patent cases.”<sup>110</sup> Judge Mayer’s concurrence cited Judge Markey’s “additional views” in *SRI Int’l v. Matsushita Electric Corp. of America*.<sup>111</sup> Judge Markey’s views, although not part of the *SRI* plurality opinion, had included forceful attacks on both the equity argument of *Bernstein* and the due process argument of *Japanese Electronic Products*.<sup>112</sup>

Responding to Judge Mayer’s criticism, Judge Archer, writing for the *Markman* court, expressly denied that the decision was an “effort to indirectly create a ‘complexity exception’” in patent cases.<sup>113</sup> He stated: “[i]n this opinion we do not deprive parties of their right to a jury trial in patent infringement cases. Our opinion merely holds that part of the infringement inquiry, construing and determining the scope of the claims in a patent, is strictly a legal question for the court.”<sup>114</sup> Judge Archer noted that the “application of the properly construed claim to the accused device” would still be left to the jury.<sup>115</sup>

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<sup>110</sup> *Id.* at 993 (citing *SRI Int’l v. Matsushita Electric Corp. of America*, 775 F.2d 1107, 1130 (Fed. Cir. 1985) (Markey, C.J., additional views)).

<sup>111</sup> *Id.*

<sup>112</sup> *SRI Int’l v. Matsushita Electric Corp. of America*, 775 F.2d 1107, 1127-31 (Fed. Cir. 1985) (Markey, C.J., additional views) (citing *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069 (3d Cir. 1980); *Bernstein v. Universal Pictures, Inc.*, 79 F.R.D. 59 (S.D.N.Y. 1978)).

<sup>113</sup> *Markman I*, 52 F.3d at 984.

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

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The above exchange between the majority and Judge Mayer demonstrates both sides' disavowal of any Seventh Amendment "complexity exception" for patent cases. Moreover, seven of the nine judges who wrote or joined the aforementioned opinions are still sitting on the Federal Circuit,<sup>116</sup> and a search of other Federal Circuit opinions, including concurrences and dissents, has revealed no explicit endorsement of the complexity exception. Accordingly, it seems extremely unlikely that the Federal Circuit will adopt this exception for patent cases.

### 3. *Just the Facts*

Even in a jury trial, questions of law are decided by the court, and only questions of fact are reserved for the jury.<sup>117</sup> A basic patent case has two essential elements: construing the patent and determining whether it has been infringed.<sup>118</sup> However, patent validity can also be at issue.<sup>119</sup>

As mentioned in the preceding section,<sup>120</sup> the Federal Circuit held, in *Markman*, that the construction of patent claims is an issue of law, to be decided solely by the judge, whereas the issue of infringement is one of fact,

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<sup>116</sup> *Id.* at 970 (Judge Archer's opinion joined by Judges Rich, Nies, Michel, Plager, Lourie, Clevenger, and Schall). Judges Archer, Michel, Plager, Lourie, Clevenger, Schall, and Mayer are still on the court. *See U.S. Court of Appeals for the Federal Circuit; Judicial Biographies* (visited Dec. 3, 2000) <<http://www.fedcir.gov/judgbios.html>>.

<sup>117</sup> *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996) [hereinafter *Markman II*].

<sup>118</sup> *See id.*

<sup>119</sup> *See, e.g., In re Lockwood*, 50 F.3d 966 (Fed. Cir. 1995).

<sup>120</sup> *See supra* text accompanying notes 104-114.

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to be decided by the jury.<sup>121</sup> This holding has been affirmed by the Supreme Court.<sup>122</sup>

The ultimate question of validity is one of law, but if the action is brought before a jury, the jury must find the facts necessary to make the legal determination.<sup>123</sup> In particular, the question of obviousness is a question of law, but the trier of fact must determine: “(1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the art; and (4) [any] objective evidence [of] nonobviousness.”<sup>124</sup> Anticipation — i.e., lack of novelty — is also a question of fact.<sup>125</sup>

Based upon the rules cited above, it can be seen that even after *Markman*, there are still important issues of fact which must be decided by the jury. However, as a practical matter, one must consider Judge Mayer’s statement, in his *Markman* concurrence, that “to decide what the claims mean is nearly always to decide the case.”<sup>126</sup> If Judge Mayer was correct,

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<sup>121</sup> *Markman I*, 52 F.3d at 984.

<sup>122</sup> *Markman II*, 517 U.S. at 384, 391.

<sup>123</sup> See, e.g., *Lockwood*, 50 F.3d at 970-71, n.4 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)).

<sup>124</sup> *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1547 (Fed. Cir. 1983).

<sup>125</sup> See, e.g., *General Electric Co. v. Nintendo Co., Ltd.*, 179 F.3d 1350, 1353 (Fed. Cir. 1999) (citing *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 299, 302 (Fed. Cir. 1995) (citing *Glaverbel Societe Anonyme v. Northlake Marketing & Supply, Inc.*, 54 F.3d 1550, 1554 (Fed. Cir. 1995); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984))).

<sup>126</sup> *Markman I*, 52 F.3d at 989 (Mayer, J., concurring in the judgment).

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*Markman* should have caused an increase in the number of cases settled shortly after claim construction. As noted by one observer, this effect would presumably be evidenced by a decline in the number of cases that have gone to trial each year since *Markman* was decided.<sup>127</sup> If claim construction is indeed dispositive in most circumstances, one would expect an especially acute reduction in the number of jury trials. Yet, the empirical evidence indicates that there has not been a tremendous decline. For example, in the two fiscal years 1991-92 and 1993-94, prior to both the Federal Circuit and Supreme Court decisions in *Markman*, 163 patent cases (an average of 81.5 per year) were tried to juries.<sup>128</sup> In 1998, subsequent to both *Markman* decisions, 62 patent cases were tried to juries.<sup>129</sup> This difference of approximately 24%, even if caused solely by *Markman*—and not merely by statistical fluctuations—can hardly be considered such a huge change as to suggest that the jury trial is no longer relevant in patent litigation. In short, despite the removal of claim construction from the province of the jury, the remaining factual issues will continue to have an important impact on the outcomes of patent trials. Since these issues will often pose insurmountable difficulties for unskilled jurors, the basic fairness of patent litigation is still at stake.

### B. *Blue Ribbon Juries in Complex Patent Cases*

#### 1. *Legality of Expert Juries in Patent Cases*

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<sup>127</sup> Laurence H. Pretty, *The Judicial Attack on Infringement*, in PATENT LITIGATION 1999, at 245, 257 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 572, 1999).

<sup>128</sup> See Ted D. Lee & Michelle Evans, *The Charade: Trying a Patent Case to All “Three” Juries*, 8 TEX. INTELL. PROP. L.J. 1, 8 (1999).

<sup>129</sup> *Id.*

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### a. *Is an Ordinary Jury Unconstitutional?*

As discussed above,<sup>130</sup> the Federal Circuit has shown signs that it will probably resist any efforts to take undisputedly factual issues out of the hands of the jury, even in complex patent cases. Both the law/equity distinction and the due process rationale are likely to be rejected, which raises the issue of how a court can justify its refusal to adopt the complexity exception without solving the very real problems which form the basis of both the equity and due process arguments.

An exception based on the traditions of equity is perhaps less compelling, since this theory appears to be primarily a matter of interpreting the historical patterns of English and American jury use. Courts such as those of *Bernstein* and *Financial Securities*, which have examined these patterns, have set forth quite plausible arguments both for and against recognition of equity jurisdiction over complex cases. Therefore, since the history of the equitable exception may be reasonably interpreted in more than one way, I submit that the choice of interpretation must be based upon the fundamental fairness of using a jury to try a difficult case. We need common sense, not history, to guide us in this determination. If the jury is not sufficiently knowledgeable and intelligent to understand the issues, then it cannot possibly be fair to subject the parties to the arbitrary decision that must necessarily result. Accordingly, equitable jurisdiction should apply if it is not possible to obtain a sufficiently capable jury.

These considerations take on even greater urgency in the context of the Constitution's due process requirement. Due process requires at least a minimum level of rationality in the adjudication process, as was strikingly illustrated in *Sullivan v. Fogg*, the insane juror case. If a non-

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<sup>130</sup> See discussion *supra* Part IV.A.2.



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expert jury is utterly incapable of comprehending the technology in a patent case, can its decision-making be any more rational than that of an insane jury? The answer must surely be no. If discovering the truth is dependent upon understanding the issues, and the person charged with the task of discovery cannot achieve this understanding, then the person's conclusions cannot bear any relationship to the truth, beyond that which is stumbled upon by sheer luck.

Moreover, as recognized by the Third Circuit in *Japanese Electronic Products*, the same logic that demonstrates that an incompetent jury violates due process also has crucial implications for the Seventh Amendment analysis.<sup>131</sup> The very features which give the jury its importance, such as the ability to apply community values to modify harsh results of law, and the lending of legitimacy to the legal line-drawing process, simply do not exist when the jury does not understand the case.<sup>132</sup> Under such circumstances, the Seventh Amendment considerations are less compelling than the due process considerations, and therefore, the right to a jury must be subject to an exception in order to accommodate due process.<sup>133</sup>

The foregoing discussion leads us to two irresistible conclusions which have been denied by no judge in any of the cases discussed herein. First, there can be no Seventh Amendment right to a jury incapable of understanding the facts and legal issues in the case. Second, the due process clause of the Fifth Amendment would, at any rate, be violated by

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<sup>131</sup> *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069, 1084 (3d Cir. 1980).

<sup>132</sup> *Id.* at 1085.

<sup>133</sup> *Id.* at 1086.

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such a jury. This leaves us with the question of whether there are, in fact, any juries who, despite all efforts to help them grasp the facts and legal issues in their cases, are simply incapable of understanding enough of the subject matter to make rational decisions. The answer is almost certainly yes.

As discussed earlier, judges who have expressly rejected the Seventh Amendment complexity exception have, in part, based their rejections on an assumption that there is no area of knowledge beyond the capability of a jury, provided that the material is explained well enough.<sup>134</sup> Of particular interest in the patent context are Judge Markey's comments in *SRI*: "[t]here is no peculiar cachet which removes 'technical' subject matter from the competency of a jury when competent counsel have carefully marshalled and presented the evidence of that subject matter and a competent judge has supplied carefully prepared instructions."<sup>135</sup>

There is ample evidence that the enthusiastic judicial confidence in the abilities of jurors is misplaced. It is revealing that, as discussed in the Introduction, this confidence is not echoed by the patent bar.<sup>136</sup> Judges writing opinions are constrained by considerations of how their statements will impact the law. Lawyers writing practice manuals are not thus burdened, and can therefore afford to be more candid. Accordingly, I

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<sup>134</sup> See *supra* text accompanying notes 40-43; see also *In re* U.S. Financial Securities Litigation, 609 F.2d 411, 432 (9<sup>th</sup> Cir. 1979) ("[W]e do not believe that any case is so overwhelmingly complex that it is beyond the abilities of a jury."); *Kian v. Mirro Aluminum Co.*, 88 F.R.D. 351, 355 (E.D. Mich. 1980) (quoting the above statement from *Financial Securities*).

<sup>135</sup> *SRI Int'l v. Matsushita Electric Corp. of America*, 775 F.2d 1107, 1130 (Fed. Cir. 1985) (Markey, C.J., additional views).

<sup>136</sup> See discussion *supra* Part I.

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propose that the effectiveness of ordinary juries as fact-finders in patent cases is better judged by the statements of practicing litigation attorneys.

Furthermore, the organization of educational curricula supports the conclusion that certain subjects cannot realistically be learned without the proper background. For example, undergraduate physics programs do not teach quantum mechanics in the first semester,<sup>137</sup> and this is clearly because the students do not possess the basic scientific and mathematical tools needed to comprehend it. Patented inventions are often at the forefront of technology, and the concepts underlying the most advanced inventions are likely to be far beyond even what is covered in any undergraduate curriculum. It seems highly unrealistic to assume that a typical juror, who probably has very little scientific or mathematical background, will be able to learn, during the course of a patent infringement trial, subject matter which otherwise requires years of study by a highly select set of full-time students.

What really goes on in the jury room is perhaps best illustrated by the widely-cited exchange between a trial judge and the frustrated foreman of a deadlocked jury in an extremely complex, technology-related antitrust case:

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<sup>137</sup> See, e.g., University of Rochester, *General Information for a Preconcentration in Physics or in Physics & Astronomy* (visited Apr. 3, 2000) <<http://www.pas.rochester.edu/mainFrame/education/undergrad/preconGen.html>> (Introductory mechanics class should be taken before “Modern Physics” class, which provides introduction to quantum mechanics) (linking to University of Rochester, *PHY 123 Modern Physics* (visited Apr. 3, 2000) <[http://www.pas.rochester.edu/mainFrame/education/pages/PHY\\_123.html](http://www.pas.rochester.edu/mainFrame/education/pages/PHY_123.html)> (“Modern Physics” class includes introduction to quantum mechanics)); The Pennsylvania State University, *Physics Options for Undergraduates at Penn State* (visited Apr. 3, 2000) <<http://www.phys.psu.edu/undergraduate/options/>> (linking to exemplary curricula, e.g., The Pennsylvania State University, *General Physics Option; Suggested Schedule by Semester*, (visited Apr. 3, 2000) <<http://www.phys.psu.edu/undergraduate/options/generaloption.html>> (listing introductory mechanics and electricity and magnetism courses before “General Physics” course including modern physics)).

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Throughout the trial, the court felt that the jury was having trouble grasping the concepts that were being discussed by the expert witnesses, most of whom had doctorate degrees in their specialties . . . . When asked by the court whether a case of this type should be tried to a jury, the foreman of the jury said, “If you can find a jury that’s both a computer technician, a lawyer, an economist, knows all about that stuff, yes, I think you could have a qualified jury, but we don’t know anything about that.”<sup>138</sup>

Had the aforementioned jury reached a decision, would this decision have been sufficiently rational to satisfy due process? I think not.

### b. *The Constitutional Obligation to Provide a Sufficiently Skilled Jury*

In light of the foregoing discussion, there is compelling evidence that judicial confidence in the abilities of ordinary jurors is misguided. On the other hand, courts which have adopted a complexity exception to the Seventh Amendment have been equally wrong in assuming that certain cases are necessarily beyond the competence of a jury. All that is needed is the right jury. As commentators have noted with respect to complex litigation in general, a panel with sufficient skill and knowledge to make rational decisions would satisfy the requirements of due process, thereby resolving any conflict between the Fifth and Seventh Amendments.<sup>139</sup>

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<sup>138</sup> ILC Peripherals Leasing Corp. v. International Business Machines Corp., 458 F.Supp. 423, 447 (N.D. Ca. 1978).

<sup>139</sup> See, e.g., Rita Sutton, *A More Rational Approach to Complex Civil Litigation in the Federal Courts: the Special Jury*, 1990 U. CHI. LEGAL F. 575, 584 (1990); Lisa Meyer, *Taking the “Complexity” Out of Complex Litigation: Preserving the*

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Without this conflict, there is no need for a complexity exception.<sup>140</sup> Moreover, even if the Federal Circuit were to adopt the Third Circuit rule of *Japanese Electronic Products*, the complexity exception under this rule only applies when the jury will not be able to understand the case well enough to perform its “task of rational decisionmaking.”<sup>141</sup> This problem would not exist for a sufficiently qualified jury. Furthermore, such a jury would eliminate any justification for classifying the case as equitable. Equity jurisdiction must be based either on fairness or on the historical treatment of cases too complex for juries, and if a panel of experts can overcome the complexity and render a fair verdict, the case necessarily falls into the “common law” category.

Accordingly, since it would violate the Seventh Amendment not to honor a jury demand if a sufficiently competent jury could be summoned, and since it would violate the Fifth Amendment to use an ordinary jury to try a case too complex for the jurors to understand, it seems evident that in a case beyond the competence of an ordinary jury, a party must have a constitutional right to a jury with special expertise in the relevant subject

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*Constitutional Right to a Civil Jury Trial*, 28 VAL. U. L. REV. 337, 367-68, 370-73 (1993).

<sup>140</sup> See, e.g., Sutton, *supra* note 138, at 584; Meyer, *supra* note 138, at 359.

<sup>141</sup> *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069, 1086. (3d Cir. 1980).

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matter.<sup>142</sup> This, of course, assumes that it is feasible to empanel such a jury, a topic which is addressed in detail below.<sup>143</sup>

Ironically, a blue ribbon jury would be consistent with the Third Circuit's holding in *Japanese Electronic Products*, the Ninth Circuit's holding in *Financial Securities*, and the Federal Circuit's reluctance to recognize a complexity exception to the Seventh Amendment. Remember that the complexity exception rule in *Japanese Electronic Products* did not apply until after consideration of "special trial techniques to increase [the] juries' capabilities."<sup>144</sup> Although the Third Circuit did not specifically suggest the use of a jury of experts, I submit that this method would be just such a "special trial technique," and would therefore render the complexity exception inapplicable, even under the Third Circuit rule.

With regard to the assertion, in *Financial Securities*, that "[no] case is so overwhelmingly complex that it is beyond the abilities of a jury,"<sup>145</sup> the Ninth Circuit is correct, provided that its definition of "jury" is not limited to a panel of ordinary citizens. If no such limit is imposed, the use of a blue ribbon panel satisfies the Ninth Circuit rule as well.

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<sup>142</sup> Cf. Kristy Lee Bertelsen, *From Specialized Courts to Specialized Juries: Calling for Professional Juries in Complex Civil Litigation*, 3 SUFFOLK J. TRIAL & APP. ADVOC. 1, 34 (1998) (suggesting that, in complex trials, the use of a special jury or statutorily heightened jury qualifications are the only ways to ensure that a party obtains the capable jury needed to satisfy the due process right).

<sup>143</sup> See discussion *infra* Part IV.B.3.b.

<sup>144</sup> *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069, 1089 (3d Cir. 1980).

<sup>145</sup> *In re U.S. Financial Securities Litigation*, 609 F.2d 411, 432 (9<sup>th</sup> Cir. 1979).

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Equally importantly, if an expert jury system were implemented for patent cases, the Federal Circuit would probably never need to decide expressly whether to recognize a complexity exception. Arguing against this exception, Judge Markey once made an assertion that can hardly be rebutted: “not all judges are inevitably more competent than all juries . . . .”<sup>146</sup> This statement will be especially true if patent cases are heard by jurors with years of education in the technologies of the patents at issue. The strongest argument against applying a complexity exception in any particular case would be to establish that the jury can understand the case better than the judge can.

### *c. But What About the Fair Cross Section Requirement?*

A fair cross section requirement based solely upon the supervisory power of the federal courts<sup>147</sup> or upon a statute<sup>148</sup> clearly must give way before the above-described,<sup>149</sup> constitutional imperative.<sup>150</sup> However, if the requirement is based upon the Equal Protection Clause of the Fourteenth

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<sup>146</sup> *SRI Int'l v. Matsushita Electric Corp. of America*, 775 F.2d 1107, 1128 (Fed. Cir. 1985) (Markey, C.J., additional views).

<sup>147</sup> *See, e.g., U.S. v. Butera*, 420 F.2d 564, 568 (1<sup>st</sup> Cir. 1970); *Barber v. Ponte*, 772 F.2d 982, 984 (1<sup>st</sup> Cir. 1985).

<sup>148</sup> *See* 28 U.S.C.A. § 1861 (West 1999) (“[A]ll litigants in Federal courts entitled to trial by jury shall have the right to grand and petit juries selected at random from a fair cross section of the community in the district or division wherein the court convenes.”); *see also U.S. v. Kleifgen*, 557 F.2d 1293, 1295-97 (9<sup>th</sup> Cir. 1977) (applying § 1861 to selection of a grand jury).

<sup>149</sup> *See supra* text accompanying notes 138-45.

<sup>150</sup> *Cf. Douglas G. Smith, The Historical and Constitutional Contexts of Jury Reform*, 25 HOFSTRA L. REV. 377, 469 (1996) (“[A]bandonment of the goal of accuracy in favor of a blind adherence to the principle of representativeness arguably tramples on the litigants’ due process rights . . .”).

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Amendment,<sup>151</sup> it is not as easily subdued. Have we resolved a conflict between the Fifth and Seventh Amendments only to be thwarted by yet another constitutional amendment? If the less educated were unquestionably a cognizable group, it would indeed be difficult to establish a jury selection policy compatible with all three amendments. However, as discussed above,<sup>152</sup> there is a circuit split on the cognizability of the less educated. Accordingly, in light of the need for some constitutionally acceptable solution, and considering the existing uncertainty in the scope of the fair cross section requirement, I think that the only possible conclusion is that the cognizability issue must be resolved in favor of allowing selection based upon educational background.

Admittedly, a jury composed solely of members of a single profession might, on the surface, seem to represent anything but a fair cross section of the community. Indeed, it has been suggested that such jurors might be biased in favor of their own technical theories, and furthermore, would not be capable of representing “the conscience of the general community.”<sup>153</sup> However, I think that this view undeservedly ascribes to engineers and scientists a peculiar amount of dogmatism, closed-mindedness, and provincialism. For one thing, the scientific method itself is based upon fair consideration of alternative theories. Furthermore, although the demographic characteristics of engineers and scientists, as a group, do

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<sup>151</sup> See, e.g., *Barber v. Ponte*, 772 F.2d 982, 984 (1<sup>st</sup> Cir. 1985).

<sup>152</sup> See *supra* text accompanying notes 64-65.

<sup>153</sup> 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, 653-54 (1996) (citing John W. Wesley, Note, *Scientific Evidence and the Question of Judicial Capacity*, 25 WM. & MARY L. REV. 675, 681-82 (1984)).



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not perfectly match those of the population as a whole,<sup>154</sup> the group does at least represent a variety of ethnic backgrounds<sup>155</sup> and a wide range of income levels.<sup>156</sup> There is no good reason to assume that a jury of engineers and scientists would be significantly more biased than a jury selected under the current system.

### 2. *Deciding When a Case is Too Complex for an Ordinary Jury*

In the context of complex litigation in general, it has been proposed that before granting a motion for trial by special jury, a court should first

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<sup>154</sup> See, e.g., Kathy Kowalenko, *Increasing Diversity in America's Science, Engineering and Technology Fields*, THE INSTITUTE, Dec. 2000, at 1 (citing National Science Foundation studies which indicated that in 1997, the U.S. science, engineering, and technology (SET) workforce was 67.9% white male, 15.4% white female, 3.2% black, 3% Hispanic, 10.2% Asian, and 0.3% American Indian, and consisted of 6 percent persons with disabilities, compared to the 1997 U.S. workforce as a whole, which was 41.7% white male, 34.7% white female, 10.3% black, 9.2% Hispanic, and 4% Asian and other, and consisted of 14 percent persons with disabilities); Michael Heylin, *ChemCensus 2000*, CHEMICAL & ENGINEERING NEWS, Aug. 14, 2000, at 46 (citing results of 2000 survey of members of the American Chemical Society, indicating that racial makeup of the organization's members is 85.6% white, 11.0% Asian, 1.9% black, 0.2% American Indian, and 1.4% other, with 2.6% of respondents identifying themselves as Hispanic in a separate question, compared to overall U.S. population, which is 82.3% white, 12.8% black, 4.0% Asian, and 0.9% American Indian, with 11.7% identified as having Hispanic origin, independent of race).

<sup>155</sup> See, e.g., Kowalenko, *supra* note 153; Heylin, *supra* note 153.

<sup>156</sup> See, e.g., *Engineering Workforce Commission: Survey Shows Decrease in Base Salaries*, THE INSTITUTE, Nov. 1995, at 16 (listing median, yearly, engineers' salaries in 1995, ranging from \$31,700 to \$75,100, depending on specialty and number of years of experience); Heylin, *supra* note 153 (listing median, yearly, chemists' salaries in 2000, ranging from \$38,500 to \$93,400, depending on level of education and number of years of experience, with 10<sup>th</sup> percentile level of \$28,900 for bachelor's degree chemists, and 90<sup>th</sup> percentile level of \$147,300 for Ph.D. degree chemists).

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make a finding that the case is beyond the capabilities of an ordinary jury.<sup>157</sup> This would be a reasonable method, and would in fact be analogous to the judicial evaluation of complexity in the Seventh Amendment cases discussed above.<sup>158</sup> An alternative method might be to create, by statute, a right to an expert jury on demand, as once existed in the Delaware state courts.<sup>159</sup> To discourage litigants from abusing this right, the statute could require the party requesting the expert panel to pay for the additional costs of the panel (as discussed in further detail below<sup>160</sup>). If a special jury would make a difference, it would most likely be for the right reasons: improved understanding and accuracy. On the other hand, if such a jury would have little effect, neither party would have an incentive to incur the expense of demanding one.

### 3. *Implementation of a Blue Ribbon Jury System for Patent Litigation*

#### a. *Federal Jury Selection Procedures: Statutory Control, with Broad Areas of Judicial Discretion*

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<sup>157</sup> See, e.g., William V. Luneburg & Mark A. Nordenberg, *Specially Qualified Juries and Expert Nonjury Tribunals: Alternatives for Coping with the Complexities of Modern Civil Litigation*, 67 VA. L. REV. 887, 943 (1981); Charles W. Fournier, Note, *The Case for Special Juries in Complex Civil Litigation*, 89 YALE L. J. 1155, 1172-73 (1980).

<sup>158</sup> See supra text accompanying notes 16-26, 32-39; see also *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069, 1089-90 (3d Cir. 1980) (holding that the trial court must rule on whether a particular lawsuit is “too complex for a jury to understand and decide rationally.”); *Kirby v. Lake Shore & Mich. S. R. R. Co.*, 120 U.S. 130, 134 (1887); *Bernstein v. Universal Pictures, Inc.*, 79 F.R.D. 59 (S.D.N.Y. 1978).

<sup>159</sup> See, e.g., *Haas v. United Technologies Corp.*, 450 A.2d 1173, 1180-85 (Del. 1982) (applying a state statute directing the court to order a special jury upon the application of either party).

<sup>160</sup> See *infra* text accompanying notes 201-205.

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Each federal district court has discretion in the design of its own specific jury selection procedures, subject to statutory limitations.<sup>161</sup> Historically, Congress has either prescribed specific federal rules governing juror qualification and impanelment,<sup>162</sup> or has directed the federal courts to adopt some or all of the rules of the respective state courts.<sup>163</sup> Prior to 1957, juror qualifications for each district court were controlled by the law of the state in which the court was situated.<sup>164</sup> The 1957 Civil Rights Act helped to resolve the divergent practices among the states by imposing uniform federal juror eligibility standards.<sup>165</sup> Detailed procedures for selecting jurors were added to the federal code by the Jury Selection and Service Act of 1968.<sup>166</sup>

The statutes provide a great deal of specificity as to the proper methods for choosing people to be summoned for jury duty. Prospective jurors are selected from lists of registered or actual voters, or from other

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<sup>161</sup> See, e.g., *Pointer v. U.S.*, 151 U.S. 396, 407-08 (1894); *Thiel v. Southern Pac. Co.*, 328 U.S. 217, 220-21 (1946).

<sup>162</sup> See 28 U.S.C.A. §§ 1861-78 (West 2000).

<sup>163</sup> See, e.g., *Pointer*, 151 U.S. at 407-08; *Thiel*, 328 U.S. at 221 (citing 28 U.S.C. § 411 (1946) (current version at 28 U.S.C.A. §§ 1861-78 (2000))); *U.S. v. Shackelford*, 59 U.S. 588, 589-90 (1855); *U.S. v. Richardson*, 28 F. 61, 68-69 (1886).

<sup>164</sup> See, e.g., *Sanders v. U.S.*, 357 F.Supp. 1055, 1055-56 (D. Md. 1973); *U.S. v. Zirpolo*, 450 F.2d 424, 429-30 (3d Cir. 1971).

<sup>165</sup> Civil Rights Act of 1957, Pub. L. No. 85-315, 71 Stat. 634 (1957) (current version at 28 U.S.C.A. §§ 1861-78 (2000)); see also *Zirpolo*, 450 F.2d at 429-30 (citing 103 Cong. Rec. 13154); *Rabinowitz v. U.S.*, 366 F.2d 34, 53-54 (5<sup>th</sup> Cir. 1966).

<sup>166</sup> Jury Selection and Service Act of 1968, Pub. L. 90-274, 82 Stat. 54 (1968) (current version at 28 U.S.C.A. §§ 1861-78 (2000)).

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sources if necessary to promote the policies of the statutes.<sup>167</sup> A minimum number of names are selected from the above sources and placed in a “master jury wheel.”<sup>168</sup> The master jury wheel, which can be either mechanical or electronic, is used to randomly select people who, if “qualified as jurors,” will have their names included in a “qualified jury wheel.”<sup>169</sup> Periodically, when required by the court, juror names are drawn at random from the qualified jury wheel, and those individuals whose names have been drawn are summoned for jury duty.<sup>170</sup> In order to assess potential jurors’ eligibility for inclusion in drawings from the qualified jury wheel, each person whose name is drawn from the master jury wheel is sent a juror qualification form which elicits information such as the person’s age, occupation, education, citizenship, physical or mental infirmities, English language skills, and criminal record.<sup>171</sup> Unless otherwise exempt from service,<sup>172</sup> a potential juror must be deemed qualified to serve on grand and petit juries unless she is not a U.S. citizen, is less than eighteen years old, has not resided in the district for at least one year, lacks sufficient English skills, has a mental or physical infirmity making it impossible to render

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<sup>167</sup> 28 U.S.C.A. § 1863(b)(2) (West 2000).

<sup>168</sup> *Id.* § 1863(b)(3), (4).

<sup>169</sup> *Id.* §§ 1866(a), 1869(g).

<sup>170</sup> *Id.* § 1866(a), (b).

<sup>171</sup> *Id.* §§ 1865(a), 1869(h).

<sup>172</sup> *Id.* § 1863(b)(5)(B), (b)(6)(exempting volunteer safety personnel (upon individual request), members of the Armed Forces, members of fire or police departments, and public officials).

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satisfactory service, or has a conviction or pending charge involving a serious crime.<sup>173</sup>

Yet, although the statutes impose many uniform requirements upon the courts, each individual court retains some discretion as to the specific procedures it adopts.<sup>174</sup> In particular, 28 U.S.C. § 1863 directs each district court to implement its own written plan for random selection of grand and petit jurors, subject to approval by a “reviewing panel.”<sup>175</sup> The reviewing panel includes the members of the judicial council of the circuit, as well as either the chief judge of the district or another judge designed by the chief judge.<sup>176</sup> The district court may modify its plan at any time,<sup>177</sup> and if the modifications are approved by the reviewing panel, they become effective within ninety days of approval.<sup>178</sup>

Moreover, despite the code’s substantial level of detail with respect to the jury summoning process, the statutes provide minimal direction regarding the final steps of selecting a particular panel from among the

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<sup>173</sup> *Id.* § 1865(b).

<sup>174</sup> *See, e.g.*, U.S. v. Kouri-Perez, 992 F.Supp. 502, 503 (D.P.R. 1998) (citing 28 U.S.C. § 1863).

<sup>175</sup> 28 U.S.C.A. § 1863(a) (West 2000).

<sup>176</sup> *Id.*

<sup>177</sup> *Id.*

<sup>178</sup> *Id.* § 1863(c).

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summoned jurors.<sup>179</sup> The implementation of these final procedures, including voir dire, varies among judges.<sup>180</sup> Sections 1866(c)(2), (3), and (4) offer some guidance by providing that a court may exclude a juror from a particular case based upon lack of impartiality, a peremptory challenge (each party is entitled to three), or “good cause.”<sup>181</sup> However, beyond these general instructions, the statutes do not appear to greatly restrict the manner in which a trial judge can assign jurors to a particular case.

### b. *Proposal for Random Selection of Special Jurors*

Unlike conventional voir dire, the empaneling of a blue ribbon jury could not be administered by the judge alone. In order to select special jurors at random, as required by 28 U.S.C. § 1861, a court would need to establish some additional infrastructure to set aside the names of jurors qualified to serve on particular types of complex patent cases. For example, it might be necessary to establish several different “qualified jury wheels,” one for ordinary jurors, and one for each type of technology likely to arise in patent litigation. In fact, a separate qualified jury wheel for special jurors has been proposed for use in complex litigation generally.<sup>182</sup> The difficulty

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<sup>179</sup> See JODY GEORGE *ET AL.*, HANDBOOK ON JURY USE IN THE FEDERAL DISTRICT COURTS 43-44 (1989).

<sup>180</sup> *See id.* at 44-56.

<sup>181</sup> 28 U.S.C.A. §§ 1866(c)(2), (3), (4), 1870 (West 2000).

<sup>182</sup> *See, e.g.*, William V. Luneburg & Mark A. Nordenberg, *Specially Qualified Juries and Expert Nonjury Tribunals: Alternatives for Coping with the Complexities of Modern Civil Litigation*, 67 VA. L. REV. 887, 946 (1981); Lisa S. Meyer, Note, *Taking the “Complexity” Out of Complex Litigation: Preserving the Constitutional Right to a Civil Jury Trial*, 28 VAL. U. L. REV. 337, 368 (1993).

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with this method, however, is that it arguably violates the letter of the code, which mentions only a single qualified jury wheel.<sup>183</sup>

It might be preferable to set up an expert jury wheel as a third stage of random selection, which would be applied to the general list of jurors drawn from the qualified jury wheel. Starting with the general list, the names of people with relevant educational backgrounds would be specially selected for the expert jury wheel on a case-by-case basis, according to the specific type of expertise required for each trial. The selection would be based upon the jurors' responses to the occupation and education questions on their juror qualification forms. For example, in a case involving a software patent, the names of all computer scientists and programmers would be entered into the expert jury wheel, which would then select the required number of jurors. The summonses issued to the selected experts would direct these jurors to appear in court on the day of the trial for which they were chosen. Those whose names were not drawn for a particular case would be assigned either to a different software case or to an ordinary, non-patent case, depending upon the demands of the trial docket.

Using an expert jury wheel as a third stage of random selection would allow the court to retain the statutorily-mandated master jury wheel and qualified jury wheel, and would add an extra level of selection only after the court has generated the list of people to be summoned for jury duty. Accordingly, such a procedure would reduce the likelihood of conflict with the federal code. As discussed above, the statutes impose few restrictions upon the methods used after the jurors have been chosen for summoning,<sup>184</sup>

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<sup>183</sup> 28 U.S.C.A. § 1866(a) (West 2000).

<sup>184</sup> *See supra* text accompanying notes 178-80.

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and the court is therefore likely to have the most discretion over the final stages of the process.

Furthermore, there are already existing jury-selection procedures which would help to determine who possesses the specialized knowledge necessary for inclusion in expert jury drawings. For example, the federal district courts currently employ a juror qualification questionnaire containing a standardized set of questions.<sup>185</sup> In accordance with the statute, the form inquires into the potential juror's age, possible physical and mental disabilities, literacy, and occupation.<sup>186</sup> With regard to educational background, the questionnaire is relatively specific. The respondent must indicate the number of years of education she has undergone in high school, above high school, and in any trade or vocational school.<sup>187</sup> In addition, judges have the ability to collect supplemental information prior to voir dire. For example, Judge Vaughn R. Walker of the Northern District of California uses a questionnaire which asks jurors to list their undergraduate and graduate degrees, areas of study, and work experience.<sup>188</sup> It is clearly possible to obtain enough information about individual jurors to select not only college-educated people, but people with training in areas of science or technology relevant to a particular patent suit.

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<sup>185</sup> Telephone Interview with Jury Administrator of the U.S. District Court for the Northern District of California (Mar. 28, 2000).

<sup>186</sup> Juror Qualification Questionnaire, United States District Courts, in use as of March 28, 2000.

<sup>187</sup> *Id.*

<sup>188</sup> Juror Questionnaire completed by jurors called to the courtroom of Judge Vaughn R. Walker, U.S. District Court for the Northern District of California.



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Of course, there will be some lawsuits which involve more than one area of knowledge. In such cases, the court could require each juror to have a background in at least one discipline related to the patents in dispute. In fact, in the context of Alternative Dispute Resolution (ADR), one commentator has suggested the use of a hybrid panel of decision-makers, each member skilled in one area relevant to the case.<sup>189</sup> I submit that a similar technique could be used in the courtroom.

### *c. Authority to Implement Changes*

As discussed above, where the code is silent, each district court has broad discretion over how it empanels its juries.<sup>190</sup> Therefore, if the trial judge were the only person needed to conduct the procedure, it would be within her authority to select an expert panel from among the summoned jurors. However, since the expert jury wheel method would necessitate significant additional administration, it would be subject to scrutiny by a reviewing panel. For comparison, consider the conventional master jury wheel and qualified jury wheel. Under the code, these devices are to be maintained and operated by the court's jury commission or clerk, according to procedures set forth in the jury selection plan.<sup>191</sup> Similarly, an expert jury wheel would most appropriately be administered by the jury commission or clerk, and the jury selection plan would need to include detailed rules governing the expert selection process. Since the ultimate authority over

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<sup>189</sup> Tom Arnold, *Why ADR?*, in PATENT LITIGATION 1999, at 1040 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 572, 1999) (suggesting a three-member ADR panel of "one patent lawyer, one technologist and one business man").

<sup>190</sup> See *supra* text accompanying note 160.

<sup>191</sup> 28 U.S.C.A. §§ 1863(b)(3), (4), 1866(a) (West 2000).

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the content of a jury selection plan resides with the reviewing panel,<sup>192</sup> an individual court cannot single-handedly provide for a blue ribbon jury system. Barring an amendment to the statutes, it appears that the only way for a district court to create such a system would be seek the approval of the reviewing panel.

The requirements of additional infrastructure and approval by a reviewing panel raise the issue of exactly what would happen the first time an expert jury request were made in a particular court. Suppose, for example, that a party in a complex electrical patent case were to file a motion for an expert jury of electrical engineers. To obtain the expert jury (without appealing the case), the requesting party would be required to persuade not only the trial judge, but the reviewing panel, that such a jury would be appropriate. Even assuming that the trial judge and the panel could be convinced, there would probably be a substantial delay, because it would take time for the court to draft the proposed amendments to the jury plan, for the panel to approve the changes, and for the expert jury wheel to be created and tested. Consequently, a litigant interested in rapid resolution of its case might be discouraged from requesting an expert jury.

However, patent cases can last for years,<sup>193</sup> and it therefore seems unlikely that the changes to the jury plan and the practical implementation of the additional jury wheel would cause an unacceptable bottleneck in every case. Provided that the trial judge and reviewing panel would not take excessively long to make their decisions, the prospect of obtaining a better jury would likely be worth the potential delay in a trial which is already expected to be lengthy.

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<sup>192</sup> *Id.* § 1863(a), (c).

<sup>193</sup> *See* Arnold, *supra* note 189, at 1016-17.

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### d. *Practical Issues: Finding Enough People, and Paying Them*

One potential concern associated with such an exclusive jury selection process is whether it would be possible to obtain enough qualified jurors to satisfy the demands of the courts without requiring highly educated people to serve more time in court than the general populace. Some commentators have suggested that it might not be feasible to gather the necessary jurors.<sup>194</sup> However, to address this issue properly, it is important to consider the demographics of the federal district court jury pool. Assuming that jurors can be drawn primarily from among working people, the jury pool should roughly reflect the demographics of the U.S. workforce. The U.S. Bureau of Labor Statistics (BLS) has compiled data on approximately 98 million U.S. workers aged 16 years and over.<sup>195</sup> Of these workers, 2% (1.9 million) were classified as engineers (including aerospace, chemical, civil, electrical/electronic, industrial, and mechanical), 1.7% (1.6 million) were mathematical and computer scientists, 0.6% (564,000) were computer programmers, 0.5% (514,000) were natural scientists (including chemists, physical scientists, biological and life scientists, and medical scientists), and 0.5% (460,000) were physicians.<sup>196</sup> Adding these numbers gives the result that approximately 5% of working people (5.1 million in total) belong to one of the aforementioned highly trained groups. Among those eligible for jury duty, the percentage of

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<sup>194</sup> See, e.g., Gregory D. Leibold, *In Juries We Do Not Trust: Appellate Review of Patent-Infringement Litigation*, 67 U. COLO. L. REV. 623, 650 (1996); 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, 654 (1996).

<sup>195</sup> U.S. Bureau of Labor Statistics, *Median Usual Weekly Earnings of Full-Time Wage and Salary Workers by Detailed Occupation and Sex* (visited March 30, 2000) <<ftp://ftp.bls.gov/pub/special.requests/lf/aat39.txt>>.

<sup>196</sup> *Id.*

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college-educated engineers and scientists can be considered even higher, since the BLS data includes workers as young as 16 years of age.

Is 5% of the working population sufficient to support a blue ribbon jury system for patent cases? This depends not only upon how much of the district courts' trial docket is occupied by patent litigation, but upon how often trial by expert jury would be granted. With regard to the court docket, it has been estimated the average federal trial judge spends no more than 2% of his time hearing patent disputes.<sup>197</sup> Even under the most pessimistic assumptions, it appears that the workforce could probably support this burden. Specifically, I will assume that an expert jury would be empaneled in every patent case. In addition, although my research has uncovered no study breaking down the courts' total patent trial time by technical specialty, I will choose several exemplary specialties and, in each example, make the worst-case assumption that every trial would involve that particular technical discipline. This second assumption, of course, imposes the maximum possible burden upon members of that discipline.

Suppose, for example, that every patent case (2% of the federal trial docket) were to involve an electrical, electronic, or computer hardware-related invention. Since 2% of the workforce (2 million people) consists of electrical engineers, electronic engineers, computer systems analysts, and computer scientists,<sup>198</sup> and the federal court jury pool should reflect this percentage, it should be feasible to earmark this 2% of jurors for the aforementioned patent cases. As another example, suppose that every patent case were to involve a software invention. Since 2% of the

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<sup>197</sup> See TOM ARNOLD, PATENT ALTERNATIVE DISPUTE RESOLUTION HANDBOOK, § 5.02 (1991).

<sup>198</sup> See U.S. Bureau of Labor Statistics, *Median Usual Weekly Earnings of Full-Time Wage and Salary Workers by Detailed Occupation and Sex* (visited March 30, 2000) <<ftp://ftp.bls.gov/pub/special.requests/lf/aat39.txt>>.

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workforce (1.9 million people) consists of computer scientists and computer programmers,<sup>199</sup> it appears that an all-software patent docket could also be accommodated by the jury pool. As a final example, suppose that every allegedly infringed patent were in the pharmaceutical or biochemical arts. This would pose somewhat greater difficulty, because only 1% (944,000) of the workforce is classified under the categories most likely to be helpful in such cases: chemists, biological and life scientists, medical scientists, physicians, and pharmacists.<sup>200</sup> However, one should remember the very pessimistic assumptions have been made for the purposes of simplifying these calculations. The aforementioned 1% of the population would at least be able to provide expert jurors for half of all patent trials, and this may very well be sufficient, considering that: (1) not all patent trials involve pharmaceutical or biochemical inventions, and (2) it is unlikely that an expert jury trial would be granted in every case.

An additional concern raised by the proposed blue ribbon jury system is the potential difficulty of finding highly educated specialists who would not suffer undue hardship from being compelled to sit through a lengthy patent litigation. Patent trials usually range in duration from one week to one month,<sup>201</sup> and it is likely that the relatively highly-paid professionals called for expert jury duty would find it extremely objectionable to be forced away from their jobs for such long trials. Furthermore, even assuming that jurors working for salary would continue to get paid, some employers might pressure their employees to find excuses

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<sup>199</sup> *Id.*

<sup>200</sup> *Id.*

<sup>201</sup> See Kevin R. Casey, *Alternative Dispute Resolution and Patent Law*, 3 FED. CIR. B.J. 1, 4 n.12 (1993).

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to avoid jury duty, despite the fact that such pressure is illegal.<sup>202</sup> Moreover, self-employed engineers and scientists would have an even stronger incentive to claim hardship; they might lose a great deal of income for which they would have no meaningful source of reimbursement.

The blow would be softened significantly, and expert participation would be more enthusiastic, if the party demanding an expert panel were required to pay the jurors fair compensation for their participation in the trial.<sup>203</sup> Such a requirement would not unreasonably increase trial costs. The median weekly earnings of physicians, the highest paid workers who might be called for expert jury duty, amounted to \$1,266 in 1999.<sup>204</sup> If a full-sized panel of 12 physicians were paid a fee equal to this median salary to hear five weeks of testimony, the cost would be about \$76,000, and this number could be reduced by using a smaller number of jurors. Patent cases typically cost at least \$500,000 to litigate,<sup>205</sup> and even a 15% cost increase

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<sup>202</sup> See 28 U.S.C.A. § 1875(a) (West 2000) (“No employer shall discharge, threaten to discharge, intimidate, or coerce any permanent employee by reason of such employee’s jury service . . . in any court of the United States.”).

<sup>203</sup> See Franklin Strier, *The Educated Jury: A Proposal for Complex Litigation*, 47 DEPAUL L. REV. 49, 73-74 (1997) (proposing a substantial increase in juror compensation, which could be paid by the state, the juror’s employer, or the litigants).

<sup>204</sup> See U.S. Bureau of Labor Statistics, *Median Usual Weekly Earnings of Full-Time Wage and Salary Workers by Detailed Occupation and Sex* (visited March 30, 2000) <<ftp://ftp.bls.gov/pub/special.requests/lf/aat39.txt>>.

<sup>205</sup> See, e.g., Kevin R. Casey, *Alternate Dispute Resolution and Patent Law*, 3 FED. CIR. B.J. 1, 4 (1993); Tom Arnold, *Why ADR?*, in PATENT LITIGATION 1999, at 1038 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 572, 1999) (“[I]n the courthouse it is almost hard to find the patent or other computer case where you can truly assure the client of a budget under a million dollars, inclusive of the cost of inside personnel support.”); Tom Arnold, *Fundamentals of Alternative Dispute Resolution: Why Prefer ADR?*, in PATENT LITIGATION 1993, at 655, 661 (PLI Patents, Copyrights, Trademarks, & Literary Property Course Handbook Series No. 376, 1993) (“One million dollars per party for a patent trial and appeal, or almost any other two-week trial plus appeal, is now almost routine—two to five million and more, not uncommon. Over \$200 million, total for both sides, estimated in the Polaroid v. Kodak case of 1991.”).

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does not seem outrageous, considering the enormous amount of money at stake and the potentially vast improvement in the accuracy and predictability of the process. A litigant with a strong, but complex case, and many millions of dollars riding on the outcome, would be ill-advised to simply roll the dice rather than spending a comparatively small sum of money to dramatically increase his chances of achieving his rightful victory.

### V. CONCLUSION

The Seventh Amendment right to have a jury is meaningless if the jury lacks the ability to make a non-arbitrary decision. In addition, due process cannot be satisfied unless jurors have the intellectual ability and background to understand the issues. In extremely complex patent disputes tried before a jury, only a panel of experts can do the job properly. Although there is no way to guarantee that every patent case will be understood by its fact-finders, in complex trials the courts arguably have a constitutional duty to summon, on request, a panel of jurors educated in the relevant science and technology.

Under the current jury-selection statutes, the courts, through their reviewing panels, already have the authority to implement a special jury system. Although there may be some practical difficulties to this approach, the difficulties seem far from insurmountable. In particular, the labor data suggest that the U.S. workforce contains enough highly educated specialists to supply the federal courts with as many blue ribbon juries as are likely to be necessary.