

University of Michigan Journal of Law Reform

Volume 20

1987

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Recommended Citation

Martin J. Adelman, *The New World of Patents Created by the Court of Appeals for the Federal Circuit*, 20 U. MICH. J. L. REFORM 979 (1987).

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THE NEW WORLD OF PATENTS CREATED BY THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Martin J. Adelman*

A decisive shift in the regulation of technology occurred during the last days of the Carter administration and continued during the Reagan administration. The antitrust laws, which for most of the postwar years reigned supreme both in their own sphere and as applied to the creation and exploitation of technology, suddenly were deemphasized. At the same time, the patent system, which had been relegated to an obscure corner by many opinion makers, made a startling comeback.¹

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1. Indeed, popular magazines now regularly run articles calling attention to the system's resurgence. Andresky, *A Weapon at Last [pro-patent decisions]*, FORBES, Mar. 10, 1986, at 46; Baldo, *Juries Love the Patent Holder*, FORBES, June 17, 1985, at 147; Mack, *A Change in the Legal Climate*, FORBES, Oct. 7, 1985, at 41; Perry, *The Surprising New Power of Patents*, FORTUNE, June 23, 1986, at 57; Work, *Inventors' Just Rewards*, U.S. NEWS & WORLD REP., Mar. 3, 1986, at 43.

Academic opinion toward patents has changed less radically, however. No substantial revision in the lukewarm view of patents has taken place in the economics literature. See, e.g., DeBrock, *Market Structure, Innovation, and Optimal Patent Life*, 28 J.L. & ECON. 223 (1985).

Perhaps the most detailed review of the economic literature relating to the patent system is found in Professor Machlup's famous Study No. 15. SUBCOMM. ON PATENTS, TRADEMARKS, AND COPYRIGHTS OF SENATE COMM. ON THE JUDICIARY, 85TH CONG., 2D SESS., AN ECONOMIC REVIEW OF THE PATENT SYSTEM (Comm. Print 1958) (Study No. 15 prepared by Fritz Machlup, Department of Political Economy, Johns Hopkins University). Professor Machlup sums up his argument as follows:

If we did not have a patent system, it would be irresponsible, on the basis of our present knowledge of its economic consequences, to recommend instituting one.

But since we have had a patent system for a long time, it would be irresponsible, on the basis of our present knowledge, to recommend abolishing it.

Id. at 80. I have explained elsewhere why the economic analysis Professor Machlup used to reach this startling conclusion is erroneous. Adelman, *The Supreme Court, Market Structure, and Innovation: Chakrabarty, Rohm and Haas*, 27 ANTITRUST BULL. 457, 461-66 (1982) [hereinafter Adelman, *The Supreme Court*]; see also Adelman, *Property Rights Theory and Patent-Antitrust: The Role of Compulsory Licensing*, 52 N.Y.U. L. REV. 977, 987 (1977) [hereinafter Adelman, *Property Rights*].

Nevertheless, there is a modest revival in academic scholarship concerning patents that does not emphasize, as did earlier work, the defects of the system. See Caves, Crookell & Killing, *The Imperfect Market for Technology Licenses*, 45 OXFORD BULL.

The patent system comeback broke a long-standing governmental bias against patents. The Supreme Court had been anti-patent since the 1930's.² The Department of Justice had a special section of its Antitrust Division devoted to antipatent advocacy and litigation,³ and to some it appeared that the anti-trust noose would constantly be tightened.⁴ The FTC, not to be outdone, attacked Xerox for building a great company through the judicious use of patents.⁵

ECON. & STAT. 249 (1983); Fudenberg, Gilbert, Stiglitz & Tirole, *Preemption, Leapfrogging and Competition in Patent Races*, 22 EUR. ECON. REV. 3 (1983); Horstmann, MacDonald & Slivinski, *Patents as Information Transfer Mechanisms: To Patent or (Maybe) Not to Patent*, 93 J. POL. ECON. 837 (1985).

One strongly pro-patent article from a former Chicago academic is Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977). See also Creel & Winttingham, *Patent Systems and Their Role in the Technological Advance of Developing Nations*, 10 RUTGERS COMPUTER & TECH. L.J. 255 (1984); Lunn, *The Roles of Property Rights and Market Power in Appropriating Innovative Output*, 14 J. LEGAL STUD. 423 (1985); Peckham, *Should the U.S. Patent Laws be Abolished?*, 11 J. CONTEMP. L. 389 (1985) (concluding that benefits of system outweigh costs); Note, *An Appraisal of the Court of Appeals for the Federal Circuit*, 57 S. CAL. L. REV. 301 (1984). But see Jaffe, *Technological Opportunity and Spillovers of R & D: Evidence from Firms' Patents, Profits, and Market Value*, 76 AM. ECON. REV. 984 (1986); Tandon, *Optimal Patents and Compulsory Licensing*, 90 J. POL. ECON. 470 (1982); Wright, *The Economics of Invention Incentives: Patents, Prizes, and Research Contracts*, 73 AM. ECON. REV. 691 (1983).

Even law schools are beginning to pay more attention to patents, although the number of patent experts on tenured law school faculties remains small. Although my own state, Michigan, may be atypical, Michigan's law schools have increased their commitment to the teaching of intellectual property law. Wayne State University has entered into a consortium with the University of Detroit and Canada's University of Windsor concerning the teaching of intellectual property subjects. Each member school will specialize in one area and students will register in their home school for classes offered at the other schools. Wayne State is specializing in patent law and has already added a seminar in advanced patent law to accompany its basic patent law course. Windsor has instituted a new course in trademarks and related unfair competition doctrines and the University of Detroit is planning to strengthen its copyright and entertainment law curriculum. In addition, the University of Michigan has added full-time specialists in both copyright law and in patent and trade secret law.

2. This trend is carefully described in D. CHISUM, PATENTS § 5.02[3] (1986). See *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969).

3. The Department's activities are extensively discussed and criticized in Adelman & Juenger, *Patent-Antitrust: Patent Dynamics and Field-Of-Use Licensing*, 50 N.Y.U. L. REV. 273, 273-78 (1975).

4. Easterbrook, *Is There a Ratchet in Antitrust Law?*, 60 TEX. L. REV. 705 (1982).

5. The proceeding was ultimately settled by the entry of a consent decree. See *Xerox Corp.*, 86 F.T.C. 364 (1975). The implications of the proceeding for innovation policy are extensively discussed in Goetz & Schwartz, *Industry Structure Investigations: Xerox's Multiple Patents and Competition*, in FEDERAL TRADE COMMISSION SINCE 1970: ECONOMIC REGULATION AND BUREAUCRATIC BEHAVIOR 121 (K. Clarkson & T. Muris eds. 1981).

An important private antitrust action challenging the acquisition by Xerox of the most important patents ended up in favor of Xerox, however. *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195 (2d Cir. 1981), cert. denied, 455 U.S. 1016 (1982).

The year of 1982 marked the end of the antipatent era. The Department of Justice removed itself from the business of patent bashing.⁶ The Supreme Court, albeit by a narrow majority, decided that the patent laws applied to living organisms⁷ and could be used to create a monopoly in an unpatented product so long as that product has no other substantial commercial use.⁸ Legislation upgraded the Patent and Trademark Office (PTO) and appropriated more money for it.⁹ Lastly, Congress created a new court of appeals, the Federal Circuit, with jurisdiction over almost all appealed patent issues.¹⁰

6. The Department of Justice lost an important case in *United States v. Studiengesellschaft Kohle, m.b.H.*, 670 F.2d 1122 (D.C. Cir. 1981), but by that time it was advocating the position expressed by the Court. See Lipsky, *Current Antitrust Division Views on Patent Licensing Practices*, 50 ANTITRUST L.J. 515 (1981). *Studiengesellschaft* was a landmark case that embraced a far warmer view of patents than most prior cases. See 6 D. DUNNER, J. GAMBRELL, M. ADELMAN & C. LIPSEY, *PATENT LAW PERSPECTIVES* § 18.6[3.-5] n.31.1 (2d ed. 1982) [hereinafter D. DUNNER & J. GAMBRELL] for a review of the case.

7. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (holding that the fact that a new organism was "alive" does not take it outside the reach of the patent system). Although the decision was five to four, it still reflected the fact that a narrow majority of the Court favored the patent system. Because there was no policy reason whatsoever for arguing that a "live" organism, albeit created in the laboratory, for that reason alone should be outside the scope of patent protection, *Chakrabarty* was a relatively pure test for how well disposed each Justice was toward the patent system. See Adelman, *The Supreme Court*, *supra* note 1, at 467, for a thorough discussion of the case.

8. *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 201-02 (1980). Although this case was also decided by a five to four vote, I do not believe it is a pure test of how one views the patent system. The dissenting Justices were clearly imbued with the anti-trust theory that a patentee should not be able to control an unpatented product used in his patented process even if that product has no other use but to be employed in the patented process. This is the leverage theory run amuck, and it infected the dissent. Belief in this theory, as misguided as it may be, however, is not inconsistent with a belief in a strong patent system.

9. Power to reexamine patents was granted by the Act of Dec. 12, 1980, Pub. L. No. 96-517, 94 Stat. 3015 (codified as amended at 35 U.S.C. §§ 301-307 (1982)). Pub. L. No. 96-517 also increased funding to the PTO.

10. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (codified at 28 U.S.C. § 1295 (1982 & Supp. III 1985)). Section 1295(a)(1) provides in pertinent part:

The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction . . . of an appeal from a final decision of a district court . . . if the jurisdiction of that court was based, in whole or in part, on section 1338 of this title, except that a case involving a claim arising under any Act of Congress relating to copyrights or trademarks and no other claims under section 1338(a) shall be governed by sections 1291, 1292, and 1294 of this title.

In turn, § 1338 provides:

The district courts shall have original jurisdiction of any civil action arising under the Act of Congress relating to patents, plant variety protection, copyrights and trade-marks. Such jurisdiction shall be exclusive of the courts of the states in patent, plant variety protection and copyright cases.

28 U.S.C. § 1338 (1982).

The purpose of this Article is to outline the creation of this new circuit and to analyze its position on several substantive issues. Part I discusses the origin and power of the Federal Circuit. Part II analyzes the court's recent decisions on the issues of nonobviousness, infringement, inequitable conduct, patent misuse, and jury trials. This Article concludes that the Federal Circuit has in general performed well, but there are areas of patent law that must be refined for the court to further its intended goals.

I. THE ORIGIN AND POWERS OF THE FEDERAL CIRCUIT

On October 1, 1982, the Court of Appeals for the Federal Circuit, whose importance may equal or perhaps even exceed other acclaimed federal appellate courts such as the District of Columbia Circuit or the Second Circuit, came into existence.¹¹ The Federal Circuit was not created solely because the patent system was so important that it merited its own court. Rather, the creation of the Federal Circuit was also an outgrowth of the dissatisfaction with the functioning of both the Supreme Court and the federal appellate courts.¹² Whatever the reason for its creation,

11. Commenting on the importance of this new court, Judge Coffin, former Chief Judge of the First Circuit, stated that legislation creating the Federal Circuit was "in the tradition of the three other major legislative sources of the shape of the judicial establishment: the Judiciary Act of 1789, the Circuit Court of Appeals Act of 1891, and the Judges' bill of 1925." *Federal Courts Improvement of 1979: Hearings on S. 677 and S. 678 Before the Subcomm. on Improvements in Judicial Machinery of the Senate Comm. on the Judiciary*, 96th Cong., 1st Sess. 3 (1979).

12. This dissatisfaction drove Congress and the Federal Judiciary Center to establish the Freund and Hruska Commissions. The Freund Report was based on a series of studies initiated in 1971 by the Federal Judicial Center to analyze the number of cases being appealed to federal courts of appeals and the Supreme Court. The report recommended establishment of a national court of appeals to ameliorate the problem. Congress furthered the inquiry with the creation of the Commission on Revision of the Federal Appellate Court System [hereinafter Hruska Commission]. Although the Hruska Commission also recommended a national court of appeals, it noted certain areas of federal litigation it believed were in need of special attention. These areas were tax, patents, and environmental law.

Excellent histories of these Commissions are found in the literature. See Lever, *The New Court of Appeals for the Federal Circuit* (Parts I & II) 64 J. PAT. OFF. SOC'Y 178, 243 (1982); Meador, *A Proposal For A New Federal Intermediate Appellate Court*, 60 J. PAT. OFF. SOC'Y 665 (1978); Petrowitz, *Federal Court Reform: The Federal Courts Improvement Act of 1982—And Beyond*, 32 AM. U.L. REV. 543 (1983); see also COMMISSION ON REVISION OF THE FED. COURT APPELLATE SYS., STRUCTURE, AND INTERNAL PROCEDURE: RECOMMENDATIONS FOR CHANGE, reprinted in 67 F.R.D. 195 (1975) (Hruska Commission Report).

Interestingly, the specific proposal that led to the Federal Circuit included exclusive jurisdiction in that court for tax and environmental appeals as well as for patent

the Federal Circuit is important for two reasons. First, it is an experiment on the much publicized and often belittled idea of specialty courts.¹³ Second, it is a court whose importance argua-

appeals. The proposal that ultimately created the Federal Circuit was issued by the Department of Justice. It proposed an appellate court of national geographic jurisdiction over discrete areas of the law. It called for the court to be formed by merging the Court of Claims and the Court of Customs and Patent Appeals. The court would also have jurisdiction over all appeals from district court final decisions in tax cases, patent cases, and environmental cases. See Petrowitz, *supra*, at 550-51 (citing OFFICE FOR IMPROVEMENTS IN THE ADMIN. OF JUSTICE, U.S. DEP'T OF JUSTICE, A PROPOSAL TO IMPROVE THE FEDERAL APPELLATE SYSTEM 9, 21, 22 (June 21, 1978) (draft report)).

It is possible that the Justice Department proposal was based on an article written by Judge Harold Leventhal of the D.C. Circuit. The judge noted that a significant problem in the federal courts was the conflict of decisions among the circuits in certain areas of the law. He commented that appropriate subject matter areas for a new appellate court of national jurisdiction would be tax law, environmental law, securities law, labor law, and patent law. Leventhal, *A Modest Proposal for a Multi-Circuit Court of Appeals*, 24 AM. U.L. REV. 881 (1975).

The former were ultimately dropped, but the patent system got its court, and it need not share that court with either tax or environmental law. Although jurisdiction over tax appeals from the Court of Claims survived, Congress eliminated exclusive appellate jurisdiction over environmental and civil tax cases from the proposal. The reason why environmental and tax jurisdiction was dropped is an interesting question. Special interest groups opposed tax and environmental jurisdiction, but certain special interest groups opposed patent jurisdiction as well. See *Federal Courts Improvement Act of 1981—S. 21 and State Justice Institute Act of 1981—S. 537: Hearings on S. 21 and S. 537 Before the Subcomm. on Courts of the Senate Comm. on the Judiciary*, 97th Cong., 1st Sess. 88-110 (1981).

Some commentators explain the situation by pointing to the problems of intercircuit conflicts and "forum shopping" that existed in the patent law. This reasoning seems unpersuasive because similar if not equal conflicts existed in tax law and environmental law. These conflicts were well recognized as early as the Hruska Commission. Thus, perhaps patents were singled out for exclusive jurisdiction due to the realization by Congress that a uniform and more reliable patent system was necessary for sustained economic growth and to rise to the challenge of Japanese and German industrial competition.

13. In his article, *Will the Federal Courts of Appeals Survive Until 1984? An Essay on Delegation and Specialization of the Judicial Function*, 56 S. CAL. L. REV. 761, 777 (1983), Judge Posner stated that because of the creation of the Court of Appeals for the Federal Circuit, "[p]atent infringement [litigation] will become the most important area of specialized federal appellate jurisdiction we have ever had." Thus, the Federal Circuit represents an experiment for the idea of specialized courts.

Specialized courts, however, have been criticized on a variety of grounds. In his article, Posner noted eight problems: (1) rapid vacillations in policy due to changing domination of the court by opposed schools of thought; (2) increased likelihood of identification with government programs; (3) decreased independence from political branches of government due to ease of congressional intervention; (4) judicial monopoly resulting in greater concentration of government power and a reduction in diversity of ideas; (5) reduction in geographical diversity of the federal judiciary; (6) reduction in "cross-pollination" of judicial ideas from varying substantive areas; (7) potentially serious boundary questions; and (8) reduced ability to cope with unforeseen changes in case load mix. See also Rifkind, *A Special Court for Patent Litigation? The Danger of a Specialized Judiciary*, 37 A.B.A. J. 425 (1951).

Significantly, Posner noted that these problems will likely arise in the Federal Circuit due to deep "theoretical cleavages" in patent theory over whether patents should be

bly rivals or exceeds any other circuit court because of its control over the patent system.¹⁴

Patent systems are governmental efforts directed at a basic defect of capitalistic economies, the inability of inventors or their sponsors to capture the value of their creations. In essence, a competitive capitalistic economy has a defective engine because much new technology can readily and cheaply be copied.¹⁵ In the absence of a legal mechanism to protect the efforts of inventors, investments in such efforts would decrease, thereby stifling innovation. To treat all technology equally and insure that the engine will function properly, the United States, as do all other capitalistic countries, uses a patent system.¹⁶ Because the United States economy remains the most important in the world of competitive capitalism, its patent system is the world's most important. Because, as I argue, the Federal Circuit appears to be in a position largely to supplant the Supreme Court as the court controlling the patent system,¹⁷ which in turn fuels the competitive economy, it can fairly claim to be an important governmental institution in the United States.

Ironically, the Supreme Court may be partially responsible for the Federal Circuit. Congress had good reason to be dissatisfied with the Supreme Court's history of mishandling patent issues. Beginning in the 1930's, the Supreme Court adopted a rather

construed liberally to stimulate innovation or narrowly to decrease the monopoly power of a patent. Posner analogized the ideological differences in patent law to the deep-seated differences between the Harvard and Chicago schools of antitrust thought.

Some commentators have argued that the Federal Circuit is not a specialized court due to the wide spectrum of cases within its appellate jurisdiction. See Haworth & Meador, *A Proposed New Federal Intermediate Appellate Court*, 12 U. MICH. J.L. REF. 201 (1978). But see Note, *An Appraisal of the Court of Appeals for the Federal Circuit*, 57 S. CAL. L. REV. 301, 307 (1984) (concluding that the Federal Circuit "ranks near the specialized end of the spectrum").

14. See *infra* notes 30-31 and accompanying text.

15. Although firms that obtain a free ride on the research and development efforts of other companies may always be a few months behind in bringing the copied product to market, firms save much time and money by foregoing the costs of having their own research team. Thus, they can offer lower prices because there is no investment of resources.

16. In the absence of a patent system, technology that can be protected from appropriation by competitors, either under the law of trade secrets (due to its inability to be detected and thus copied), or via the structure of the market using the technology, would be developed far more rapidly. Thus, technology that is unsuitable for secrecy, such as new products, would be produced primarily by monopolies or perhaps oligopolies. Economists have written countless papers discussing the effect of market structure on invention, but the beauty of a patent system is that it renders market structure essentially irrelevant. Novel, useful, and nonobvious innovations are protected and encouraged regardless of market structure or of the ability to keep the invention a secret.

17. See *infra* notes 29-30 and accompanying text.

harsh stand toward patents—an approach that culminated in the infamous *A & P* decision in 1950.¹⁸ Congress reacted by passing a new patent code that for the first time set forth a statutory standard for patentability.¹⁹ The Supreme Court responded by leaving the circuits to determine whether the antipatent days were over. Judge Learned Hand wrote some landmark opinions for the Second Circuit during this period that promoted patent use, but at least some circuits remained hostile to the system.²⁰ Finally, in 1966 the Court once again entered the patent field by writing a fairly balanced trilogy of opinions involving the proper interpretation of 35 U.S.C. § 103, the section governing one element of patent validity, nonobviousness.²¹ Although the trilogy seemingly adopted the strict standards that the Court increasingly applied after 1930, the tone demonstrated that the Court was certainly no longer blindly antipatent.²² Shortly thereafter, however, the Court returned to its old ways,²³ culminating in the creation of the synergism controversy of the late 1970's.²⁴ The

18. *Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147 (1950) (holding a combination patent invalid for lack of invention because the combination “merely unite[d] old elements with no change in their respective functions”). Although the invention may have radically changed supermarket checkout procedures, the Supreme Court said that the patent did not add to the sum total of human knowledge.

19. 35 U.S.C. § 103 (1982 & Supp. III 1985). The concept of obviousness first entered the law in *Hotchkiss v. Greenwood*, 52 U.S. 248 (1850).

20. See, e.g., *Reiner v. I. Leon Co.*, 285 F.2d 501 (2d Cir. 1960), cert. denied, 366 U.S. 929 (1961); *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530 (2d Cir.), cert. denied, 350 U.S. 911 (1955); *Safety Car Heating & Lighting Co. v. General Elec. Co.*, 155 F.2d 937 (2d Cir. 1946). For a historical review of the circuits' approach to patent law, and specifically the weight given to secondary considerations, see 1 D. DUNNER & J. GAMBRELL, *supra* note 6, § 2.6[2.-2].

21. *Graham v. John Deere Co.*, 383 U.S. 1 (1966) (consolidating *Graham v. John Deere Co.* (dealing with first patent), and *Calmar, Inc. v. Cook Chem. Co. and Colgate-Palmolive Co. v. Cook Chem. Co.* (both dealing with a second patent)); *United States v. Adams*, 383 U.S. 39 (1966); see also Note, *A Proposal to View Patent Claim Nonobviousness from the Policy Perspective of Federal Rule of Civil Procedure 52(a)*, 20 U. MICH. J.L. REF. 1157, 1165-69 (1987) (discussing the *Graham* decision in detail).

22. An example of this tone is found in *United States v. Adams*, 383 U.S. 39 (1966), where the Court examined not only the scope and content of the prior art, but also mentioned other factors such as the commercial success of Adams's battery, the extensive use of the battery by the government, the invention's assistance to military activity and scientific research, and the government's shady business dealings with Adams.

23. See *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62 (1969) (“We conclude that while the combination of old elements performed a useful function, it added nothing to the nature and quality of the [invention].”).

24. *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976). Synergism was reinserted into the law by Justice Brennan's careless use of language. The idea, if applied seriously, would eliminate patents in the mechanical and electrical arts. Ironically, Woodward and Armstrong report that the Supreme Court referred to *Sakraida* as the “cow shit case” (the patent involved a system for removing cow manure from barn floors), and generally felt that the case was of no significance and did not even pose an interesting question “in

Court was unable to devote the time and intellectual effort necessary to administer properly the patent system. Once again many believed something had to be done. That something evolved into the creation of the Federal Circuit.

Of course, certiorari jurisdiction still remains available to a losing party in the Federal Circuit. Thus in theory the patent system remains under the auspices of the Supreme Court. The possibility exists that the Court could attempt to reassert control.²⁵ In reality, however, the possibility of Court review will have little effect on the Federal Circuit's actual control of the patent system. The Federal Circuit can establish substantial precedent in patent law over a period of years and, by virtue of controlling all patent issues, can simply have its way on any serious dispute with the Court.²⁶ Moreover, any such dispute between the Federal Circuit and the Court would provide a focused dispute for Congress to resolve. The creation of the Federal Circuit, due in part to Congress's dissatisfaction with the effectiveness of Supreme Court review of patent issues,

the arcane field of patent law." B. WOODWARD & S. ARMSTRONG, *THE BRETHERN* 419 (1979). In fact, the book suggests that Chief Justice Burger assigned the "cow shit case" to Justice Brennan in retaliation for a power play after Justice Douglas retired. Moreover, it is reported that Justice Brennan was so humiliated that he decided to write the entire opinion by himself to save his clerks the humiliation of working on the case. Given that his careless use of language resurrected the synergism controversy, maybe he should have subjected his clerks to the humiliation—perhaps they could have decided the issue correctly. Moreover, this episode discloses the distorted priorities of the Court in that the minutiae of criminal procedure routinely receive more serious attention than important questions of patent law.

The Court of Appeals for the Seventh Circuit, after explaining why the notion of synergism is nonsense in the mechanical and electrical arts, refused to apply it. The Federal Circuit has now finally put synergism to rest. *Chore-Time Equip., Inc. v. Cumberland Corp.*, 713 F.2d 774, 781 (Fed. Cir. 1983).

25. The Supreme Court has intervened in one controversy, *Panduit Corp. v. Dennison Mfg. Co.*, 106 S. Ct. 1578 (1986), *vacating* 774 F.2d 1082 (Fed. Cir. 1985), but did so merely to obtain a clear statement of the court's approach under Federal Rule of Civil Procedure 52. The court responded by fully explaining its reasons. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir.), *cert. denied*, 107 S. Ct. 2187 (1987). In the interim, the court had already carefully explained its approach to Rule 52. See *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367 (Fed. Cir. 1986), *cert. denied*, 107 S. Ct. 1606 (1987) (explaining that each finding of fact was clearly erroneous). This has not ended the controversy, however. See, e.g., Note, *supra* note 21, at 1164-65 & n.41.

26. This reality is buttressed by the fact that the Supreme Court, due to a crowded docket, is in a position to grant certiorari in very few cases, while the Federal Circuit hears a great number of patent cases each year. Furthermore, certiorari may be even less likely due to the fact that the jurisdiction of the Federal Circuit ensures uniformity on patent issues among the circuits; thus, circuit conflict as a basis for review is now essentially unavailable.

makes such a congressional resolution more likely.²⁷ Thus, the creation of the Federal Circuit has essentially removed the Supreme Court from playing any substantial role in the administration of the patent system.

The Federal Circuit is in the unique position of controlling the law that it administers due to its exclusive appellate position and control of technical substantive law. For economic and historical reasons, this enviable position may be justified. Unfortunately, this position prevents the structural counterbalances of appellate criticism or distinction that so often necessitates a grant of certiorari. Thus, the literature may provide a greater proportion of solutions for reform than in other areas of the law. It is with this reflection that the following analysis of Federal Circuit case law is presented.

II. ANALYSIS OF FEDERAL CIRCUIT TRENDS

The uniqueness and importance of the Federal Circuit in relation to other circuit courts and in relation to the fundamentals of our economic system demand attention to its decisions. In the years that have passed since the Federal Circuit began functioning, the Federal Circuit has moved rapidly toward assuming full control of the patent system.²⁸ Although many of its opinions contain extensive dicta,²⁹ it has used that dicta to create a body of law quickly. It has substantially changed the law relating to patent validity and infringement law. It has given substantial guidance on "inequitable conduct" issues, and it has driven terror into the hearts of potential infringers by requiring either that charges of infringement be treated seriously or that compensatory damages be enhanced and attorney fees awarded.³⁰ It

27. For example, 35 U.S.C. § 156 was enacted partially in response to *Roche Prod. v. Bolar Pharmaceutical*, 733 F.2d 898 (Fed. Cir.), *cert. denied*, 469 U.S. 856 (1984).

28. The patent decisions of the Federal Circuit are conveniently arranged in Chisum, *Cumulative Guide to the Patent-Related Decisions of the Court of Appeals for the Federal Circuit*, in 6 D. CHISUM, PATENTS 3-261 (1987).

29. See *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107 (Fed. Cir. 1985) (particularly Chief Judge Markey's addendum opinion joined by Judge Newman); *Atari, Inc. v. JS & A Group, Inc.*, 747 F.2d 1422 (Fed. Cir. 1984) (jurisdiction and choice of law). In each of these instances, at least one concurring opinion has chastised the Chief Judge for overusing dicta. See, e.g., Judge Davis' concurrence in *Atari*, 747 F.2d at 1441 (majority opinion unnecessarily broad, suggesting answers to other cases and issues not yet considered).

30. See generally 3 D. DUNNER & J. GAMBRELL, *supra* note 6, §§ 5.2[2], 5.2[3], 5.2[5].

has striven, albeit mistakenly in some cases,³¹ to affirm high damage awards even where the basis of such awards is questionable. The court has also attempted to work out the appropriate role of juries in patent litigation.

The Federal Circuit has also moved to clarify its own jurisdiction. In so doing it has clarified its dominant role in patent law, and shunned ancillary matters relating to technological development that are not formally patent issues.³² Thus, the court has indicated that trade secret, patent antitrust, and patent licensing issues arising in the context of patent litigation will be decided in accordance with the law of the circuit in which the case was tried.³³

In a few areas the court's work is substantially complete. In many areas its work is unfinished, and in areas such as patent misuse its work has just begun. One can, however, already see the effect of the Federal Circuit on the patent system. This effect may be seen by studying the court's work in the critical substantive areas of validity, infringement, "inequitable conduct," and patent misuse, as well as in the role of juries in patent litigation. This Article studies the court's early approach to these vital areas in order to assess where the court has been and what its agenda should be.

31. See, e.g., *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056, 1069 (Fed. Cir. 1983) (affirming use of "projected lost profits" to calculate damages). Due to problems of proof and a plethora of possible intervening factors, it should not be automatically assumed that preinfringement rates of growth will continue. Such a situation seems to call for careful appellate review of the evidence presented at trial.

32. Despite the fact that the Federal Circuit may hear and decide nonpatent issues associated with a patent case due to its broad "arising under" jurisdiction, see *Rhone-Poulenc Specialties Chimiques v. SCM Corp.*, 769 F.2d 1569, 1571-72 (Fed. Cir. 1985), it follows regional circuit precedent as to the nonpatent issues it entertains. *Panduit Corp. v. All States Plastic Mfg. Co.*, 744 F.2d 1564, 1574-75 (Fed. Cir. 1984); see *Atari, Inc. v. JS & A Group*, 747 F.2d 1422 (Fed. Cir. 1984); *In re International Medical Prosthetics Research Assoc.* 739 F.2d 618, 620-21 (Fed. Cir. 1984).

The scope of "arising under" jurisdiction has been a perplexing topic in and of itself for the Federal Circuit. See also *Wyden v. Commissioner of Patents & Trademarks*, 807 F.2d 934 (Fed. Cir. 1986). Compare *USM Corp. v. SPS Technologies, Inc.*, 770 F.2d 1035 (Fed. Cir. 1985) with *Atari, Inc. v. JS & A*, 747 F.2d 1422 (Fed. Cir. 1984).

33. However, the Seventh Circuit in *Christianson v. Colt Indus.*, 798 F.2d 1051, 1059 (7th Cir. 1986), indicated that the jurisdiction of the Federal Circuit extends to all patent issues even where such issues do not arise in the context of a patent infringement action. See also *Wyden*, 807 F.2d at 936-37.

A. *Nonobviousness*

The most important section of the Patent Code is section 103.³⁴ This section differentiates new developments that are worthy of protection from those that must go unrewarded by the test of whether an invention would be obvious to a person of ordinary skill in the art at the time the invention was made. Section 103's interpretation is central to the functioning of the patent system, because if its standards are too high, the incentives provided by the patent system are gravely diminished, and if too liberal, the public overpays for trivial advances.

In interpreting section 103, the Federal Circuit has moved swiftly to make it more difficult to invalidate patents. In doing so, the court has emphasized the importance of the way the claim is constructed when a party wants to determine patent validity.³⁵ The court has decided that claim construction is to be treated as an issue of law based on the claim specification itself, the relationship between claims, the patent application's prosecution history, and expert testimony.³⁶ Each claim, be it independent or dependent, is to be treated separately and attention must be paid to each claim of the patent.³⁷

The Federal Circuit has reinterpreted the Supreme Court's opinion in *Graham v. John Deere Co.*³⁸ so that the so-called "objective factors,"³⁹ such as commercial success and long felt need, are placed on an equal footing with the three *Graham* factors: (1) interpreting the scope of the claims, (2) determining the differences between the claims so interpreted and the prior art, and (3) determining the level of skill in the art.⁴⁰ In essence, the

34. 35 U.S.C. § 103 (1982 & Supp. III 1985), in pertinent part, provides:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. For a brief discussion of § 103, see Note, *supra* note 21, at 1161-62.

35. *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984).

36. *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 864 (Fed. Cir. 1985); *McGill Inc. v. John Zink Co.*, 736 F.2d 666, 672-75 (Fed. Cir.), *cert. denied*, 469 U.S. 1037 (1984).

37. *Datascope Corp. v. SMEC, Inc.*, 776 F.2d 320, 327 (Fed. Cir. 1985); *Gardner v. TEC Sys.*, 725 F.2d 1338, 1339 n.1 (Fed. Cir. 1984).

38. 383 U.S. 1 (1966).

39. See *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538-40 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984); *In re Sernaker*, 702 F.2d 989, 996-97 (Fed. Cir. 1983).

40. *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 1546 (Fed. Cir. 1984) (objective factors entitled to great weight); *Stratoflex*, 713 F.2d at 1535-38. The *Graham* Court considered evidence of commercial success, failure of others, and longfelt

Federal Circuit, in emphasizing objective considerations, has adopted the approach to patents taken by Judge Learned Hand.⁴¹

Making a full record of all relevant facts without some uniform way to balance them, however, does not decide individual cases. Invalidity determinations are mostly inquiries focusing on events occurring prior to the invention date, although subsequent events may cast light on the pre-invention situation. Thus, industry reaction to the invention, such as copying and other forms of praise, may be relevant.⁴² The commercial success of the invention may also be a signpost of the nonobviousness of an invention in relation to prior art, provided a nexus can be shown between the invention and that success.⁴³ In sum, the world's judgment of the inventiveness of the claimed discovery may be helpful in determining whether the invention would have been obvious at the time of invention to one of ordinary skill in the art.

Jurisprudentially, the problem with determining whether a claim is obvious revolves around how to balance and weigh appropriately the various facts bearing on obviousness. Merely

but unsolved need relevant factual inquiries germane to the obviousness question, but labelled them "secondary factors." 383 U.S. at 17.

In *Simmons Fastener Corp. v. Illinois Tool Works*, 739 F.2d 1573, 1575-76 (Fed. Cir. 1984), *cert. denied*, 471 U.S. 1065 (1985), the court went so far as to suggest that evidence of commercial success alone may require reversal of a finding of invalidity, even where the lower court correctly found that "the teachings of the prior ar[t] prima facie would have suggested to one of ordinary skill in the art the claimed invention." *See also* *Alco Standard Corp. v. Tennessee Valley Auth.*, 808 F.2d 1490 (Fed. Cir. 1986), where the majority, over the vigorous and technically correct dissent of Judge Rich, held the patent in suit valid based on commercial success. The court reached this conclusion even though the element that made the patented method successful was not disclosed in the application as filed. The court viewed the method as inherently disclosed because one of ordinary skill in the art would understand that it was there.

41. Judge Hand was probably the greatest patent judge of this century. *See, e.g.*, *Reiner v. I. Leon Co.*, 285 F.2d 501 (2d Cir. 1960); *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530 (2d Cir. 1955) (emphasizing objective considerations).

42. *See* *Windsurfing Int'l v. AMF*, 782 F.2d 995, 1000 (Fed. Cir.), *cert. denied*, 106 S. Ct. 3275 (1986).

43. To be relevant, commercial success must be shown "to have in some way been due to the nature of the claimed invention, as opposed to other economic and commercial factors unrelated to the technical quality of the patented subject matter." *Cable Elec. Prods. v. Genmark, Inc.*, 770 F.2d 1015, 1027 (Fed. Cir. 1985); *accord In re Vamco Mach. & Tool*, 752 F.2d 1564, 1577 (Fed. Cir. 1985). This nexus requirement makes sense as commercial success can be due to marketing and advertising as much as to a nonobvious invention.

Lack of commercialization alone, however, will not support a finding of invalidity. *Datascope Corp. v. SMEC, Inc.*, 776 F.2d 320, 327 (Fed. Cir. 1985). Similarly, absent an identifiable intervening event, delay in achieving commercial success will not negate the probative value of commercial success. *Windsurfing Int'l*, 782 F.2d at 1000.

spelling out a verbal test does not suffice. Although the law correctly employs a single verbal test for all technologies, modern technologies are sufficiently varied so that they may require differing approaches toward obviousness and require that the group deciding the obviousness question has sufficient experience in that technological area.⁴⁴ The Federal Circuit will ultimately develop the necessary approaches to different technologies because all appeals of nonobviousness determinations will be brought before it.⁴⁵ Thus, although there is a wide difference between biotechnology, complex electronics, and inventions involving relatively simple mechanical devices, the Federal Circuit will likely develop a sense for when inventions in those technologies are obvious and when they are not; such a development will serve to guide patent attorneys and trial court judges in predicting their decisions.

So far the court has failed to articulate clearly the policy behind its approach to obviousness determinations. Its decisions have been somewhat unpredictable, except for its bias in favor of nonobviousness.⁴⁶ This potential bias flows from the court's insistence that patents granted by the PTO are born valid and

44. For example, the pace of innovation in the electronic and biological arts may call for a more heavily weighted emphasis on the "objective" factors because the risk of hindsight determinations may be greater. *See, e.g., Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367 (Fed. Cir. 1986). In addition, the volume of arguably relevant prior art may make the determination very difficult. Furthermore, complex electronic inventions may call for expertise in that technological area. Laymen may have trouble understanding the terms and jargon of the art, let alone accurately comparing and contrasting the differences between the claimed invention and the prior art.

45. Though Congress acknowledged that exclusive jurisdiction over patent appeals would result in increasing expertise in the court, it relied upon § 305 of the Federal Courts Improvement Act to discourage the President from appointing patent lawyers to the court. "This [section] does not prohibit the President from appointing a patent lawyer to the Court of Appeals for the Federal Circuit. . . . It does, however, clearly send a message to the President that he should avoid undue specialization" H.R. REP. NO. 312, 97th Cong., 1st Sess. 50 (1981). On the current court only Judges Rich, Newman, and Chief Judge Markey have patent law backgrounds.

46. Some commentators, including Chief Judge Markey, have denied that such a bias exists. These commentators support their assertion by pointing out that of all cases reaching the Federal Circuit, roughly 50% of patents challenged are upheld, while 50% are invalidated. *See Dunner, Federal Circuit Statistics: An Analysis of the Federal Circuit Box Score*, in PRACTICING BEFORE THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT 237 (D. Dunner ed. 1985) (Practicing Law Inst. Litig. & Admin. Practice Series Number 282). When compared to pre-Federal Circuit percentages (30-40% rate of upholding validity), however, an ideological shift is apparent. Federico, *Adjudicated Patents, 1948-54*, 38 J. PAT. OFF. SOC'Y 233, 236 (1956) (Table 2). This becomes even more apparent from a reading of the court's opinions. For example, the Federal Circuit recently held a blatantly invalid patent valid over a vigorous dissent authored by Judge Rich. *Alco Standard Corp. v. Tennessee Valley Auth.*, 808 F.2d 1490, 1504 (Fed. Cir. 1986); *see supra* note 40.

that the PTO's determination is presumed to have been correct.⁴⁷ Moreover, clear and convincing evidence of invalidity must be put forth by the patent challenger before the court finds the PTO's decision of validity erroneous.⁴⁸ It is no longer sufficient to show that the prior art applied by the PTO was not as good as the prior art before the court to overcome the presumption of administrative correctness.⁴⁹ Under pre-Federal Circuit law, such a showing would ordinarily have prompted the court to make an independent determination of obviousness because the record before the court was different from the record reviewed by the PTO.⁵⁰

According to the Federal Circuit, overcoming the presumption of administrative correctness merely makes it easier to show by clear and convincing evidence that the claim or claims are obvious.⁵¹ Although one may question why clear and convincing evidence should be the standard of proof as applied to facts in civil cases, the use of this standard is another indication that the Federal Circuit wants patents to be taken seriously. The court has not, however, clarified the standard once all the underlying facts have been decided. In other words, should deference be given to the judgment of the PTO on the ultimate issue of law once all the underlying facts are determined? If such deference is given to the PTO's legal judgment, patents are, of course, more likely to be upheld.

47. *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360 (Fed. Cir.), *cert. denied*, 463 U.S. 821 (1984); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1534 (Fed. Cir. 1983) (holding that a party asserting invalidity has the burden of proceeding first, the burden of establishing a prima facie case, and the burden of persuasion that lasts to final decision). This presumption arises from deference to the expertise of the patent office and the notion of administrative regularity. *American Hoist & Derrick*, 725 F.2d at 1359.

48. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1549 (Fed. Cir. 1983); *SSIH Equip. S.A. v. United States Int'l Trade Comm'n*, 718 F.2d 365, 375 (Fed. Cir. 1983). The Federal Circuit is clearly aware of the differences between the beyond a reasonable doubt, clear and convincing, and preponderance of evidence standards. *SSIH Equip.*, 718 F.2d at 371.

49. *American Hoist & Derrick*, 725 F.2d at 1360; *cf. Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 773 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984).

50. *Aluminum Co. of Am. v. Amerola Prods. Corp.*, 552 F.2d 1020, 1025 (3d Cir. 1976); *Kahn v. Dynamics Corp.*, 508 F.2d 939, 942 (2d Cir. 1974), *cert. denied*, 421 U.S. 930 (1975). *But see Saf-Gard Prods., Inc. v. Service Parts, Inc.*, 532 F.2d 1266, 1271 (9th Cir.), *cert. denied*, 429 U.S. 896 (1976) (presumption of validity not diminished by virtue of art cited to court but not to the PTO).

51. *American Hoist & Derrick*, 725 F.2d at 1360 (presumption of validity not weakened by introduction during litigation of prior art not previously considered by patent examiner, but may be more easily overcome); *Kalman*, 713 F.2d at 773 (burden may be more easily carried by evidence of more pertinent art than considered by PTO).

Furthermore, such deference would encourage defendants to go to the PTO when challenging a patent rather than filing suit. Defendants would challenge patents in the PTO due to the inapplicability of the presumption of validity during reexaminations and therefore the burden on the defendant of clear and convincing evidence is absent. This exodus from the courts to the PTO can occur because the PTO now has the power to reexamine patents.⁵² Reexamination increases the authority of the PTO because it allows the PTO to resume the patent examination process on granted patents.⁵³ Such an investigation may be instigated by anyone, including a patent challenger or a patentee. Furthermore, the record that the PTO reviews during reexamination will be similar to the one made in court.

Despite the apparent advantage to defendants of challenging a patent in the PTO,⁵⁴ in reality this incentive may prove illusory. The Federal Circuit has strengthened the reexamination procedure from the point of view of patentees by indicating that once

52. Taking effect July 1, 1981, the Patent Reexamination Act comprises §§ 301-307 of 35 U.S.C. The Reexamination Act grew out of dissatisfaction with the cost and length of infringement litigation resulting in a "chilling effect on those businesses and independent investors who have repeatedly demonstrated their ability to successfully innovate and develop new products." H.R. REP. NO. 1307, 96th Cong., 2d Sess., pt. 1, at 4, reprinted in 1980 U.S. CODE CONG. & ADMIN. NEWS 6460, 6463. The reexamination scheme was thus intended to be an efficient and streamlined method where the continuing validity of a patent could be examined in light of prior art cited by a petitioner.

53. The reexamination statute allows the PTO to reevaluate the claims of an issued patent whenever a substantial new question of patentability arises based on prior art patents and publications. This reexamination procedure can be requested by anyone—a party to pending litigation, including the patentee, or a third party. 35 U.S.C. § 303 (1982); see 37 C.F.R. §§ 1.501-570 (1987).

The procedure works as follows: once a petitioner requests a reexamination of a patent in light of certain prior art, the PTO determines if the prior art raises a substantial new question of patentability. 35 U.S.C. § 303 (1982). When this threshold is passed, formal reexamination is ordered. Formal reexamination closely parallels initial examination. It is *ex parte*, the patent owner may file a statement regarding the newly cited prior art, and amendments as well as new or different claims may be offered to distinguish the newly cited art. If the patent owner does opt to amend or change his claims, § 307 of the Act incorporates the doctrine of intervening rights, which states that a patentee cannot recover damages for past infringement where the patentee during reissue or reexamination amends or changes his claims in any way—unless the substance of the infringed claim was in the original patent. *Kaufman Co. v. Lantech, Inc.*, 807 F.2d 970, 978 (Fed. Cir. 1986).

54. It is argued that this advantage occurs because district courts by statute must presume the validity of an issued patent, 35 U.S.C. § 282 (1982 & Supp. III 1985), although no such presumption applies during reexamination. *In re Etter*, 756 F.2d 852, 856 (Fed. Cir. 1985); see Note, *Examining the Federal Circuit's Position on the Presumption of Validity During Patent Reexamination*, 32 WAYNE L. REV. 1405 (1986) (arguing that for a discrete class of cases, reexamination rather than litigation would be favored by infringers attempting to invalidate the patent). The Note also examines the legislative and constitutional implications of the Federal Circuit's conclusion.

the PTO has reexamined the patent and upheld its validity, the challenger must show by clear and convincing evidence that the PTO was wrong.⁵⁵ The challenger thus runs the risk that a review favorable to patentability during reexamination will strengthen his opponent's position, particularly because the law allows only limited participation by the challenger and does not grant a challenger the right to appeal a ruling favorable to the patentee in the reexamination.

B. *Infringement*

Infringement questions arise from two basic problems that occur at the time when claims are drafted. The first is the difficulty of defining at the time of the patent grant all of the ways of using existing technology to make or use the patented invention. The inventor and his attorney frequently err in defining the scope of existing technology to be included in the patent claims. These errors in claim scope evoke questions as to when, if at all, relief from such errors should be granted. The second source of difficulty flows from the dynamic nature of technology. In some cases, technology not in existence nor foreseeable at the time of the patent grant is involved in the infringing device or process. The failure of the claims to read on the accused device⁵⁶ may be the result of unanticipated developments that cannot be literally embraced because of formal requirements embedded in the patent laws.⁵⁷

American infringement law is based on the notion that the granting of a patent puts the public on notice as to what it may and may not legally do.⁵⁸ Thus we do not wait for a court to decide during infringement litigation what structures or processes are within the patent's scope. Instead, the law imposes on the patentee the burden of drafting claims, while imposing on the PTO the job of properly examining them for patentability in

55. *Windsurfing Int'l v. AMF Inc.*, 782 F.2d 995, 998 (Fed. Cir. 1986).

56. To "read on" an infringing device means that each element of the claim is found in the accused device or process.

57. A good example of the effect of new technology on infringement questions is found in *Hughes Aircraft Co. v. United States*, 717 F.2d 1351 (Fed. Cir. 1983), where the development of microprocessors made the alleged infringing device possible. *See also* *Atlas Powder Co. v. E.I. DuPont De Nemours & Co.*, 750 F.2d 1569 (Fed. Cir. 1984).

58. *See McClain v. Ortmyer*, 141 U.S. 419 (1891); *Brooks v. Fiske*, 56 U.S. (15 How.) 212 (1853); *Wayne Knitting Mills v. Russell Hosiery Mills, Inc.*, 400 F.2d 964, 968 (4th Cir. 1968), *cert. denied*, 393 U.S. 1064 (1969).

light of the metes and bounds set out by the claims.⁵⁹ This requirement on the patentee brings forth the art of the patent attorney. Claim drafting is central to the patent attorney's craft and is not learned easily. The ability to draft good patent claims is a scarce resource, and not all patent applicants enjoy the benefits of a skilled attorney. Hence, a strict application of the doctrine that the patent monopoly is defined by the claims inevitably leads, in some cases, to undercompensation or no compensation for meritorious inventions.

The patent statute, however, has long recognized that mistakes can occur in the process of claim drafting and permits a patentee to correct errors by filing a reissue application.⁶⁰ The reissue procedure simultaneously protects the inventor and the public by providing for "intervening rights" and by limiting broadened reissues only to those who file within two years of the issuance of the patent.⁶¹ Moreover, under the reexamination statute, claim errors can be corrected under the guise of amending them in view of the prior art when a substantial new issue of patentability is presented.⁶² However, the scope of the patent may not be broadened. To do so requires reissue.⁶³

The common law has created another approach to ameliorate the effect of claim drafting errors, as well as the problem of new technology. Under what is known as the "doctrine of equivalents," courts prior to the Federal Circuit, in circumstances not always clearly defined, expanded claims to cover products or processes that were literally outside the scope of the patent monopoly.⁶⁴

59. 35 U.S.C. § 112 requires that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention," while 35 U.S.C. §§ 102 and 103 give the conditions by which these claims are to be examined for patentability. 35 U.S.C. §§ 102, 103, 112 (1982 & Supp. III 1985).

60. Patents may be reissued to correct errors made without deceptive intent. 35 U.S.C. § 251 (1982). The Federal Circuit has used its discretion liberally in determining when error is shown. *Ball Corp. v. United States*, 729 F.2d 1429, 1437 (Fed. Cir. 1984); *In re Hounsfeld*, 699 F.2d 1320, 1323 (Fed. Cir. 1983). *But see In re Weiler*, 790 F.2d 1576, 1582 (Fed. Cir. 1986).

61. 35 U.S.C. § 252 (1982). The patentee has only two years after the patent issues to enlarge an erroneously drafted claim. 35 U.S.C. § 251 (1982).

62. *See* 35 U.S.C. § 305 (Supp. III 1985); 37 C.F.R. §§ 1.525-.565 (1987).

63. 35 U.S.C. § 251 allows broadened reissues to be filed, if filed within two years of the grant of the original patent. *See In re Bennett*, 766 F.2d 524 (Fed. Cir. 1985).

64. The leading modern case dealing with the doctrine of equivalents is *Graver Tank & Manufacturing v. Linde Air Products Co.*, 339 U.S. 605 (1950). This case involved an accused product contemplated by the patentee to be within the scope of his monopoly, and covered by several of his claims. However, the claims that covered the product were held to be invalid for technical reasons, so it was necessary to expand a valid claim to

The doctrine of equivalents protects inventors by holding that a process or product infringes on a patent even though it is outside the literal scope of the claim if it does "substantially the same thing in substantially the same way to achieve substantially the same result"—the function, way, result test.⁶⁵ In practice, the only disputed issue becomes whether the accused product or process functions in the same "way."

This doctrine, if applied in every case, has the potential to overwhelm the peripheral claiming system. If patent infringement turns upon whether one's product or process does the same thing in the same way and achieves the same result instead of whether the product or process is outside the literal scope of the patent claims, there is no way to determine with reliability prior to suit whether or not one is infringing another's patent. Thus the public is not notified at the time of the patent grant of the legitimate scope of the patent monopoly, and the rationale for the peripheral claiming system is undermined. Arguably this has been the result of Federal Circuit decisions.⁶⁶

In order to preserve the peripheral claiming system, the Federal Circuit should develop standards for when the doctrine of equivalents is available to the patentee. Only by returning to the root purposes of the doctrine will meaningful standards be generated. As it currently stands, a patentee is entitled to enlarge his claim to cover equivalents if he can show as a question of fact that the accused product or process functions in the same

cover what was literally outside its scope. *Id.* at 612. There was no question that a claim literally covering the accused product could have been put into the patent that would have been free of the defect that plagued the actual claims. Thus, this case was one where there was an overwhelming equitable case for expanding the valid claim to cover the accused product. The error, however, would also have been correctable under reissue at any time since such a rewritten claim would not have broadened the patent.

65. *Id.* at 608.

66. Other than the doctrine of prosecution history estoppel, *see supra* notes 71-75 and accompanying text, the Federal Circuit has not enunciated any situation where the doctrine is not applicable. Moreover, although the court has suggested that the pioneering status of the invention should be considered in determining the range of equivalents, *Texas Instruments v. United States Int'l Trade Comm'n*, 805 F.2d 1558, 1568 (Fed. Cir. 1986), equitable considerations relating to the range of equivalents may not be readily applied by the courts because the Federal Circuit has indicated that equivalency is a question of fact, and thus a question for the jury. *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 862 (Fed. Cir. 1985), *cert. denied*, 106 S. Ct. 1197 (1986); *Radio Steel & Mfg. v. MTD Prods.*, 731 F.2d 840, 847 (Fed. Cir. 1984); *see also* *Great N. Corp. v. Davis Core & Pad Co.*, 782 F.2d 159, 166 (Fed. Cir. 1986) (recognizing that if the court extends the claims under the doctrine of equivalents too far it could destroy the peripheral claiming system).

Of course, equivalents that expand claims broad enough to be invalid under § 103 are not permitted. *See Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 900 (Fed. Cir.), *cert. denied*, 469 U.S. 857 (1984).

way, unless precluded by prosecution history estoppel,⁶⁷ or the prior art. However, the doctrine of equivalents was designed with a very limited purpose, to prevent fraud on the patent,⁶⁸ and not to undermine the peripheral theory of patents. Thus, more detailed controls on the doctrine may be appropriate.

One possible approach would be to limit the use of the doctrine to situations where the accused product or process uses technology that was not in existence at the time of the patent grant, or where the claim limitation that must be overcome was required by the formal rules of claiming.⁶⁹ A more limited approach would permit the use of equivalents where the accused device uses technology not in existence at the time of the patent grant to imitate the invention. This approach would only apply if the formal rules prevented the claims from literally reading on the accused structure or process.⁷⁰

To date, the courts limit the expansion of claims by applying the doctrine of prosecution history estoppel (formerly "file wrapper estoppel").⁷¹ The theory of the doctrine is that one should not be able to recapture in court what was given up to secure patentability during the prosecution of the claims before the PTO.⁷²

In the doctrine's most expansive form, claim limitations introduced by amendment, even to merely satisfy formal require-

67. See *infra* notes 71-78 and accompanying text.

68. *Graver Tank*, 339 U.S. at 607-08:

[C]ourts have . . . recognized that to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing. . . . The doctrine of equivalence evolved in response to this experience. The essence of the doctrine is that one may not practice a fraud on a patent.

See also *Westinghouse v. Boyden Power Brake Co.*, 170 U.S. 537, 568 (1897).

69. *Hughes Aircraft Co. v. United States*, 717 F.2d 1351 (Fed. Cir. 1983), was a situation where new technology made the infringing device possible. The case did not indicate, however, that the accused product could not have been embraced by broad claims allowed under formal PTO rules. Ordinarily it is in the area of chemical inventions where rules derived from 35 U.S.C. § 112 come into play.

70. Perhaps the toughest case comes about when the patentee has made a mistake and unnecessarily narrowed his claim in a way that could have been fixed by reissue, but reissue is either not attempted or is unavailable owing to the two year limitation. The Federal Circuit should devote itself to reconciling situations such as this, for only by addressing the "hard" cases will the court adequately reconcile the doctrine of equivalents with the peripheral claiming system.

71. The leading modern case on prosecution history estoppel is *Exhibit Supply Co. v. Ace Patents Corp.*, 315 U.S. 126 (1942).

72. See *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985); see also *Williams v. V.R. Myers Pump & Supply*, 371 F.2d 192, 195 (7th Cir. 1966); *Architectural Models, Inc. v. Neklason*, 264 F. Supp. 312, 316 (N.D. Cal. 1967), *aff'd*, 397 F.2d 405 (9th Cir.), *cert. denied*, 393 U.S. 999 (1968).

ments of the Patent Act, are treated as creating such an estoppel.⁷³ Most courts, even those applying the doctrine expansively, have limited its application to amendments added to overcome prior art rejections.⁷⁴ Thus, in this approach an element added by amendment to a claim is treated differently than an element found in the claim as originally filed, even though it may have been included because of known prior art and even though it may have played a role in the ultimate allowance by the PTO of the claim. In addition, many courts in the past gave similar prosecution history estoppel effect to arguments made by the applicant that mention elements originally in the claims. This was particularly true of arguments discussing prior art, so as to give such discussed elements the same status as elements that were added by amendment.⁷⁵

This formalistic approach to prosecution history estoppel limits the use of equivalents, but does so in a random, unfocused manner. The Federal Circuit, though it may have wavered somewhat along the way, seems to have rejected this strict and inflexible approach.⁷⁶ By stating that prosecution history can have an

73. See *Borg-Warner Corp. v. Paragon Gears Works*, 355 F.2d 400, 405-06 (1st Cir. 1965); *Hughes Tool Co. v. Varel Mfg.*, 336 F.2d 61, 64-65 (5th Cir. 1964).

74. The courts apparently theorized that limitations introduced by amendment to distinguish prior art must have been relied upon by the PTO when the PTO granted the patent. Thus, the subject matter that lies between the original claim and the claim as amended is disclaimed. *William Hodges & Co. v. Stewart Corp.*, 348 F. Supp. 383, 385 n.2 (E.D.N.Y. 1972); see *Bushman Mfg. v. Stewart-Warner Corp.*, 380 F.2d 336, 340 (7th Cir.), cert. denied, 389 U.S. 897 (1967).

75. Learned Hand strongly opposed attorney arguments that patents are contracts and that the negotiations leading up to them should be used to interpret them. As a result, the Second Circuit for many years refused to refer to such arguments. See *Catalin Corp. v. Catalazuli Mfg.*, 79 F.2d 593, 594 (1935); *Delamere Co. v. Taylor-Bell Co.*, 249 F. Supp. 471, 478 n.4 (S.D.N.Y. 1966). The Second Circuit has changed its view, *Moore Business Forms, Inc. v. Minnesota Mining & Mfg.*, 521 F.2d 1178, 1183-84 (2d Cir. 1975), and in any event such arguments are now routinely, and justifiably, used by the Federal Circuit. *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 870-71 (Fed. Cir. 1985). Surely if an element in a claim is interpreted in a certain way to overcome prior art, that element so interpreted should be treated as if it were an amendment.

76. In *Hughes Aircraft v. United States*, 717 F.2d 1351, 1361-63 (Fed. Cir. 1983), the Federal Circuit stated that prosecution history estoppel may or may not arise from amendments made during prosecution of the patent depending on the purpose of the amendment. Although *Hughes* seemed to embrace a flexible notion of prosecution history estoppel, the court in *Kinzenbaw v. Deere & Co.*, 741 F.2d 383, 389 (Fed. Cir. 1984), cert. denied, 470 U.S. 1004 (1985), refused to allow a patentee to expand his amended claims beyond their literal interpretation. The court noted that it would not undertake the speculative inquiry into the nature or purpose of the amendment. But *Loctite*, 781 F.2d at 871, and *Moeller v. Ionetics, Inc.*, 794 F.2d 653, 658-59 (Fed. Cir. 1986) have limited *Kinzenbaw* to its facts, returning to the rule that depending upon the nature and purpose of an amendment during prosecution, prosecution history may have a great limiting effect or no limiting effect at all. Thus, although the court wavered along the way, it now appears that *Hughes* is the general rule.

effect from zero to one hundred percent depending upon the circumstances, the court seems to be applying what may be viewed as an all-factors approach.⁷⁷ Although such an approach is less formalistic and tends to recognize the common sense view that claims are amended for many reasons, it suffers from a lack of predictability. It does lend itself, however, to what I believe is the proper approach, which is that a patentee should not be able to adopt a position in court contrary to that taken in the PTO—an approach that does require a detailed and painstaking analysis of the actual position taken before the PTO by the patentee.

In any event, prosecution history estoppel, however defined, should not be expanded simply to serve as a brake on a patentee's use of equivalents. Although the doctrines of equivalents and estoppel are intertwined, they have different underlying roots. Instead of trying to limit the use of equivalents by application of prosecution history estoppel, the best approach would be to view equivalents and prosecution history as distinct. The court should develop appropriate doctrines limiting the use of equivalents.⁷⁸ It should also continue to limit the use of the doctrine of prosecution history estoppel to prevent patentees from arguing inconsistent positions in the PTO and in court. Furthermore, the court should assume, when in doubt, that any such inconsistent position was important to the decision of the PTO

77. In *Loctite*, 781 F.2d at 871 n.7, the Federal Circuit elaborated on the many factors entering this determination, while attempting to harmonize *Kinzenbaw* with *Hughes Aircraft*: "The results reached there [in *Kinzenbaw*] only highlight that application of prosecution history estoppel to limit the doctrine of equivalents should be performed as a legal matter on a case-by-case basis, guided by equitable principles underlying the doctrines involved and by the facts of the particular case."

78. The court's decision in *Texas Instruments v. United States Int'l Trade Comm'n*, 805 F.2d 1558 (Fed. Cir. 1986) suggests that it may be beginning to move in this direction. Although the court dealt essentially with the use of equivalents under the sixth paragraph of § 112, the court concluded its discussion as follows:

The doctrine of equivalents . . . exists solely for the equitable purpose of "pre-vent[ing] an infringer from stealing the benefit of an invention." To achieve this purpose, equivalency is judicially determined by reviewing the content of the patent, the prior art, and the accused device, and essentially redefining the scope of the claims. This constitutes a deviation from the need of the public to know the precise legal limits of patent protection without recourse to judicial ruling. For the occasional pioneering invention, devoid of significant prior art . . . whose boundaries probe the policy behind the law, there are no immutable rules. We caution that the incentive to innovation that flows from "inventing around" an adversely held patent must be preserved. To the extent that the doctrine of equivalents represents an exception to the requirement that the claims define the metes and bounds of the patent protection, we hearken to the wisdom of the Court in *Graver Tank*, that the purpose of the rule is "to temper unsparing logic" and thus to serve the greater interest of justice.

805 F.2d at 1572 (citations omitted).

in allowing the claim. Such a formulation of the doctrine of prosecution history estoppel would appropriately protect the public and enhance predictability.

C. *Inequitable Conduct in the Patent and Trademark Office*

Courts for at least twenty years have struggled with the questions of how and when to punish a patentee for misbehavior during the prosecution of his patent.⁷⁹ The PTO in 1977 formalized the duty of applicants, their counsel, and related parties to make certain information that a reasonable examiner would consider important known to the PTO.⁸⁰ By requiring disclosure of such information, the rule requires courts and the PTO to decide when a failure to disclose has taken place, a more difficult determination than deciding that an affirmative misstatement has been made to the PTO.

In this complicated area, the Federal Circuit generally has been effective in developing reasonable positions concerning a variety of legal questions involving "inequitable conduct." For example, the court has indicated that it will enforce the PTO's 1977 standard.⁸¹ Such a disclosure must be made even where it is subsequently shown that the PTO's decision would have been unaffected by the nondisclosure.⁸² In addition, the failure to disclose can be the product of gross negligence.⁸³ This requirement puts a heavy burden on an applicant to behave honorably before

79. The modern emphasis on conduct before the PTO began with *Walker Process Equip. v. Food Mach. & Chem. Corp.*, 382 U.S. 172 (1965), although there is earlier Supreme Court precedent such as *Precision Instrument Mfg. v. Automotive Maintenance Mach. Co.*, 324 U.S. 806 (1945).

80. 37 C.F.R. § 1.56 (1987).

81. *Argus Chem. Corp. v. Fibre Glass-Evercoat Co.*, 759 F.2d 10, 14-15 (Fed. Cir.), cert. denied, 474 U.S. 903 (1985); *J.P. Stevens & Co. v. Lex Tex, Ltd.*, 747 F.2d 1553, 1559-60 (Fed. Cir. 1984). The Patent Office standard is embodied in 37 C.F.R. § 1.56.

82. *A.B. Dick Co. v. Burroughs Corp.*, 798 F.2d 1392 (Fed. Cir. 1986).

83. The only questionable opinion of the Federal Circuit in the inequitable conduct area is *Argus Chemical*, where the withheld prior art did not render the claims obvious. In my view, a reasonable applicant may well have believed that it would not have been important to the PTO's decision, particularly because at the critical time there was serious question as to whether the withheld information constituted legal prior art. In fact, a year after the failure to disclose, the Court of Customs and Patent Appeals incorrectly held that the type of information involved in *Argus Chemical* could not constitute prior art. *In re Palmquist*, 319 F.2d 547 (C.C.P.A. 1963). The *Palmquist* decision was criticized two years later in *In re Foster*, 343 F.2d 980 (C.C.P.A. 1965), cert. denied, 383 U.S. 966 (1966). In a subsequent antitrust case, the trial court essentially refused to follow the lead of the Federal Circuit, *Argus Chem. Corp. v. Fibre Glass-Evercoat Co.*, 645 F. Supp. 15 (C.D. Cal. 1986), and the Federal Circuit affirmed, 812 F.2d 1381 (Fed. Cir. 1987). For a thorough discussion of *Argus Chemical*, see 5 D. DUNNER & J. GAMBRELL, *supra* note 6,

the PTO or risk a finding that its patent, even if valid, is unenforceable.

The court has, however, injected some confusion in the law because it holds that once materiality and intent are shown, the court, as an issue of law, must balance these two factors to determine whether inequitable conduct has occurred.⁸⁴ I see no reason to conduct such balancing and know of no standard that indicates how such balancing is to be done.

Perhaps the most controversial decision the court has made in the area of inequitable conduct is the removal of the need to show PTO reliance on the applicant's nondisclosure or misrepresentation.⁸⁵ As a result, any attempt to mislead the PTO, even one that fails, still renders the patent unenforceable. The court's approach here is correct, for the purpose of the inequitable conduct doctrine is to discourage certain forms of behavior before the PTO. Thus courts must discourage any attempt to misrepresent prior art, even if unsuccessful.⁸⁶ This rule, though harsh, is not unreasonable. Moreover, "inequitable conduct" can be purged through confession to the PTO of the behavior.⁸⁷

The court has not, however, been as deft when dealing with antitrust suits claiming injuries owing to the issuance of a patent procured by fraud or inequitable conduct. Instead of treating these cases as important to the administration of the patent laws and therefore subject to the control of the Federal Circuit, the court has indicated that it will defer to the law of the circuit where the district court sits.⁸⁸

§ 17.2[1] n.27. Although the court purported to distinguish it, *Argus Chemical* was effectively overruled in *Allen Archery v. Browning Mfg.*, 819 F.2d 1087 (Fed. Cir. 1987).

84. *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1364 (Fed. Cir. 1984).

85. *A.B. Dick*, 798 F.2d at 1392; *Driscoll v. Cebalo*, 731 F.2d 878, 884-85 (Fed. Cir. 1984).

86. Some members of the patent bar believe that the reliance element should remain. They argue that the purpose of the rule against inequitable conduct is to prevent the issuance by the PTO of invalid claims which in turn force the public to use resources to invalidate them. Thus if no such claim issues, they reason that no "inequitable conduct" should be found. They do, of course, concede that the individual or individuals involved should be appropriately disciplined. I, however, believe that the patent law is filled with rules that destroy patent rights in what would otherwise be patentable inventions, an example being the statutory bars found in 35 U.S.C. § 102(b), in order to encourage people to behave in a certain way. Hence, I see no principled basis for permitting deliberate misrepresentations, or grossly negligent behavior designed to obtain a claim or claims, not to destroy the patent rights flowing from that application even if the PTO did not rely on such behavior when it issued the patent.

87. *Rohm & Haas Co. v. Crystal Chem. Co.*, 722 F.2d 1556, 1571-72 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

88. See *American Hoist & Derrick*, 725 F.2d at 1365-67.

This choice of law preference is probably irrelevant to PTO practice because to prove an antitrust violation, it is necessary to show that the patent is objectively invalid and would not have been issued but for the fraud on the PTO. In addition, the mental element requirement is at least as stringent as the intent requirement for "inequitable conduct." Therefore, the "inequitable conduct" standard is more inclusive and will govern how proceedings are conducted in the PTO.

My major concern is that the Federal Circuit, by deferring to the law of the circuits, will fail to reexamine the purpose or necessity of showing that the patent covers a relevant market. I have shown in other writings that patents are monopolies and that a valuable patent obtained by fraud will increase the price for the patented product or process.⁸⁹ Thus I see no basis for the relevant market requirement. The Federal Circuit, however, has already denied that patents create monopolies, probably because the word carries a pejorative connotation.⁹⁰ In fact, patents create desirable monopolies, but they are nonetheless monopolies because the first inventor obtains total control of the invention—even against a subsequent independent inventor. This is what monopoly is all about. I hope that the Federal Circuit will eliminate this semantic confusion, admit that patents are monopolies, albeit good ones, and eliminate the requirement of a relevant market in section 2 cases. This acknowledgment would have the effect of making it even more dangerous to play "fast and loose" with the PTO.

In sum, the Federal Circuit has generally been effective in this complicated area. The court's adoption of the Patent Office's section 1.56 standard has provided some basis for certainty. This certainty has been diminished by the materiality and intent balance that has been developed by the court, however. The court's facially harsh stance on the irrelevance of actual PTO reliance on improper conduct is reasonable, but its requirement of a relevant market in antitrust cases may be improper.

89. Adelman, *Relevant Market Paradox—Attempted and Completed Patent Fraud Monopolization*, 38 OHIO ST. L.J. 289 (1977).

90. The Federal Circuit has shown little understanding of the fact that patents grant monopolies to patentees. Instead the court has asserted that patents merely give patentees property rights. *Schenck v. Nortron Corp.*, 713 F.2d 782, 784 (Fed. Cir. 1983). *But see Roberts v. Sears, Roebuck & Co.*, 723 F.2d 1324, 1345 (7th Cir. 1983) (Posner, J., concurring and dissenting).

D. Patent Misuse

In contrast to its work in the above areas, the Federal Circuit has just begun to develop the law in the area of patent misuse.⁹¹ Here, as opposed to the area of patent-antitrust, the court apparently considers misuse law to be under its exclusive control because it is a potential defense to a claim of patent infringement.

The doctrine of patent misuse was born out of hostility to the patent system; it is antipatent in theory and, if blindly applied, potentially destructive to the patent system.⁹² Essentially this doctrine has two branches. The first, which may be called substantive misuse, defines conduct by a patentee that purportedly extends the patent monopoly.⁹³ Thus, although rooted in antitrust, substantive misuse does not require the patentee to have engaged in an antitrust violation.⁹⁴ Indeed, there are many cases where the conduct that is classified as a misuse is expressly found not to violate the federal antitrust laws.⁹⁵ The second, which may be called remedial misuse, provides a special penalty for the commission of misuse: An infringer, by proving substantive misuse, can obtain a royalty-free license, even when unaffected by such misuse.⁹⁶ Of course this special penalty is available where the acts constitute an antitrust violation, but the point is that they need not do so. As a result, trials can be unduly lengthened by an infringer alleging acts that affect only

91. The Federal Circuit has decided two important cases in the area, *Windsurfing Int'l v. AMF, Inc.*, 782 F.2d 995 (Fed. Cir. 1986) and *Senza-Gel Corp. v. Seiffhart*, 803 F.2d 661 (Fed. Cir. 1986). In *Windsurfing* the court suggested that it might apply a reasoned economic analysis to the area, 782 F.2d at 1001-02, but in *Senza-Gel* it contradicted itself by suggesting that it will simply apply Supreme Court precedent untempered by modern economic learning, 803 F.2d at 670. See generally *USM Corp. v. SPS Technologies*, 694 F.2d 505 (7th Cir. 1982), *cert. denied*, 462 U.S. 1107 (1983) for a sophisticated judicial analysis of the misuse doctrine.

92. The antipatent aspects of the misuse doctrine are discussed in Adelman, *Property Rights*, *supra* note 1, at 1010-13.

93. *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 490-91 (1942).

94. *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 140 (1969).

95. A particularly egregious example of a court expressly finding misuse and then finding that the same conduct did not violate the antitrust laws is *Duplan Corp. v. Deering Milliken, Inc.*, 444 F. Supp. 648 (D.S.C. 1977), *rev'd on other grounds*, 594 F.2d 979 (4th Cir. 1979) (per curiam), *cert. denied*, 444 U.S. 1015 (1980). The case is discussed in 6 D. DUNNER & J. GAMBRELL, *supra* note 6, § 18.4[3.-2-2] n.3, § 18.6[2.-5-2] n.15.

96. This was the actual fact pattern of *Morton Salt*, 314 U.S. at 488, where the infringer was actually using the same tying practice that was found to be a substantive misuse when used by the patentee.

third parties.⁹⁷ Therefore, the Federal Circuit should have made an attempt to adopt the position of the Department of Justice that misuse, if it must be kept as an additional antitrust remedy, should be limited to antitrust violations.⁹⁸ Unfortunately, the Federal Circuit, without attempting any detailed analysis, is now saying that because of Supreme Court precedent it must apply the remedy of misuse to acts that do not violate the antitrust laws.⁹⁹

E. Jury Trials

In my view, there is little room for juries in patent cases because there is every reason to believe that federal district court judges are far better equipped to make accurate findings of fact in complicated patent cases than are lay juries. The notable advantages such judges have include greater intelligence and better training, coupled with the ability to control the pace of the trial and to study transcripts and relevant documents outside the courtroom so as to maximize their ability to absorb the relevant facts.¹⁰⁰ Judges also have more time to digest the relevant materials after the trial is over.

97. An example of the abuse fostered by the misuse remedy is found in *Ansul Co. v. Uniroyal, Inc.*, 306 F. Supp. 541 (S.D.N.Y. 1969), *modified*, 448 F.2d 872 (2d Cir. 1971), *cert. denied*, 404 U.S. 1018 (1972). In *Ansul* the defendant successfully asserted that the plaintiff was using an unlawful resale price maintenance scheme in marketing the patented product. This practice either had no effect on the marketing efforts of the infringer or enabled the infringer to compete more effectively against the patentee. Moreover, because resale price maintenance was lawful in some states and it was used by manufacturers of both patented and unpatented products in their marketing, the fact that the product in *Ansul* was patented may have had little or no relationship to the price maintenance scheme found to justify a royalty-free license to the infringer.

98. Legislation was originally introduced by the Department of Justice in 1983 to accomplish this result. It was reintroduced as the Intellectual Property Rights Improvement Act of 1986, S. 2525, 99th Cong., 2d Sess. § 501 (1986). For an explanation of the Department's position, see Rule, *The Administration's Views: Antitrust Analysis After the Nine No-No's*, 55 ANTITRUST BULL. 365 (1986).

99. *Senza-Gel Corp. v. Seiffhart*, 803 F.2d 661, 670 (Fed. Cir. 1986).

100. I have served as a patent expert in many patent cases and I am almost always impressed with the diligence and intelligence of the judges sitting on the federal bench. In one case, the judge was getting to his chambers early in the morning to read the previous day's transcript. In another, the judge was talking knowledgeably about a complicated area of technology just a few days after the trial began. By way of contrast, I have been involved in cases where the trial judge, correctly in my view, had to throw out findings made by the jury. *Vieau v. Textron, Inc.*, 230 U.S.P.Q. 500 (E.D. Mich. 1985); *Calderon v. General Motors Corp.*, 206 U.S.P.Q. 782 (E.D. Mich. 1980).

Another reason why judges are inherently superior to juries is that the side with the technically weak case has every incentive to use its preemptory challenges to rid the jury of any potential juror likely to understand the issues.

Some proponents of the use of juries in patent cases argue, however, that jury trials are more efficient because the verdict comes promptly after trial. These arguments fail to consider many of the delays that result from jury trials. Setting aside the problems connected to hung juries, the decision of the jury usually is just the beginning of the process. First, a judgment notwithstanding the verdict motion is certain to be filed by the losing party along with a motion for a new trial, and the trial judge probably spends as much time deciding these motions as she would making the appropriate factual findings.¹⁰¹ Second, there is the inevitable difficulty of dealing with appeals based on the grant or denial of such motions.¹⁰² In patent cases, this process is especially difficult because of the inherent difficulty of separating findings of fact from decisions that are labeled questions of law in the area of nonobviousness and infringement.¹⁰³

Despite the disadvantages of jury trials in patent cases, however, the system must continue to live with juries because of two decisions that were probably wrongly decided: *Beacon Theatres, Inc. v. Westover*¹⁰⁴ and *Dairy Queen, Inc. v. Wood*.¹⁰⁵ These cases held that juries were constitutionally required whenever legal relief is requested. Because most patent cases include a claim for injunctive relief, juries could be substantially eliminated in

101. In *Vieau*, 230 U.S.P.Q. at 517, Judge Cohn commented as follows:

Prior to trial I naively assumed that a jury verdict in a patent trial would substantially lessen my work as a trial judge. I was wrong. A patent jury trial requires substantially more judicial effort than a bench trial, or at least that was so in this case. Not only did I have to constantly deal with evidentiary objections, I had to instruct the jury initially on the task before them, instruct them during trial when it appeared the lawyers lost sight of their presence, and then instruct them on the rules of law they were required to follow in their deliberation. I also had to shape a proper verdict form and a multitude of special questions to assure adequate factual findings. The jury's verdict and answers to the special questions were only a station stop. The judicial effort required to decide post-trial motions was no less than the effort which would have been required had I been the factfinder.

102. See *Witco Chem. Corp. v. Peachtree Doors Inc.*, 787 F.2d 1545 (Fed. Cir. 1986).

103. See *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707 (Fed. Cir. 1986).

104. 359 U.S. 500 (1959).

105. 369 U.S. 469 (1962). In *Dairy Queen* and *Beacon Theatres* the court read broadly the right to trial by jury. There is doubt whether such a reading of the seventh amendment is warranted. See Henderson, *The Background of the Seventh Amendment*, 80 HARV. L. REV. 289, 337 (1966) ("[C]onsidering the diversity of practice that lies behind the seventh amendment it seems unnecessary and undesirable to read the amendment as imposing any but the most general limits on the Court's power to make procedural changes.").

the patent field if the Supreme Court would return to earlier seventh amendment law.¹⁰⁶

Because it is unlikely that the Supreme Court will end quickly its ill-considered romance with juries, the best hope for controlling the use or abuse of juries is to apply the complexity exception to the seventh amendment right to jury trials in a sensible fashion.¹⁰⁷ If that fails, then the Federal Circuit should insist that trial judges systematically review jury verdicts.

Unfortunately, the Federal Circuit has not declared that it believes patent trials are too complex for juries to administer properly,¹⁰⁸ or that the jury's role should be limited to deciding factual issues with detailed instructions, special questions, or interrogatories.¹⁰⁹ To make matters worse, the court seems to be receptive to the use of juries in patent cases, an attitude that is unfortunate for the system's integrity. The court would do far better to evince a healthy suspicion towards their use and suggest that the patent system is too important to be subject to the inherent irrationality of juries.¹¹⁰ There is a substantial risk that the combination of the right to a jury trial with the court's section 103 nonobviousness jurisprudence will enable patentees

106. See *Kennedy v. Lakso Co.*, 414 F.2d 1249 (3d Cir. 1969).

107. Despite many possible arguments against the requirement of a jury, the most compelling argument in the context of patent law was addressed in *Ross v. Bernhard*, 396 U.S. 531 (1970). The Court indicated that the seventh amendment right to jury trial depended upon "the nature of the issue to be tried rather than the character of the overall action." *Id.* at 538. In footnote 10 the Court suggested a three-pronged inquiry: "[T]he '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." *Id.* n.10. Some courts have seized upon this last point to argue for a complexity exception. See *In re Japanese Elecs. Prods. Antitrust Litig.*, 631 F.2d 1069, 1079, 1084-86 (3d Cir. 1980); *Bernstein v. Universal Pictures, Inc.*, 79 F.R.D. 59, 66, 70 (S.D.N.Y. 1978); *In re Boise Cascade Sec. Litig.*, 420 F. Supp. 99, 104-05 (W.D. Wash. 1976); cf. Comment, *Complex Civil Litigation and the Seventh Amendment Right to a Jury Trial*, 51 U. CHI. L. REV. 581 (1984) (arguing historical analysis justifies complexity exception). But see *Radial Lip Mach. v. International Carbide Corp.*, 76 F.R.D. 224, 226-28 (N.D. Ill. 1977) (complexity exception rejected in patent case).

108. Although the Federal Circuit has not heard a case specifically addressing the complexity exception, dicta in *SRI International v. Matsushita Electric Corp. of America* clearly indicates that some judges on the court disfavor any such exception: "We discern no authority and no compelling need to apply in patent infringement suits for damages a 'complexity' exception denying litigants their constitutional right under the Seventh Amendment." 775 F.2d 1107, 1130 (Fed. Cir. 1985) (addendum opinion by Chief Judge Markey joined by Judge Newman).

109. See *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613 (Fed. Cir. 1985); *Railroad Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506 (Fed. Cir. 1984); *Connell v. Sears, Roebuck and Co.*, 722 F.2d 193 (Fed. Cir. 1983).

110. See *Dual Mfg. & Eng'g v. Burrus Indus.*, 619 F.2d 660, 667 (7th Cir.) (en banc), cert. denied, 449 U.S. 870 (1980).

owning objectively worthless patents to obtain large judgments from alleged infringers. It would be tragic if the court's desire to give patent law the dignity it deserves should result in the subversion of the patent system's goal—to encourage the creation and exploitation of useful, new, and nonobvious inventions.

CONCLUSION

The Federal Circuit, standing at the apex of the patent system, is now in a position to improve both the functioning and the perceived importance of the patent system. The court's decisions, if misguided, could lead to another historical period where the patent system is held in disrepute. Conversely, if it makes wise and thoughtful decisions, its activities will serve to preserve and even enhance the status that the patent system currently enjoys and thereby enhance the functioning of the economy. To date the Federal Circuit has functioned to enhance the importance of the patent system. Nevertheless, as I have attempted to show in this Article, there are areas of patent law that remain in particular need of concentrated attention by that court.

