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THE FEDERAL CIRCUIT'S FORGOTTEN LESSONS?: ANNEALING NEW FORMS OF INTELLECTUAL PROPERTY THROUGH CONSOLIDATED APPELLATE JURISDICTION

CHRIS J. KATOPIS*

The landmark case of *Marbury v. Madison* teaches us among its lessons that the hallmark of a strong legal right is the guarantee of an effective corresponding remedy. The nature and structure of the dispute resolution forum affect the disposition of an asserted right and shape the remedy. Policymakers serve the public interest when they review the role of the courts in our legal system. The many issues in question, for example, caseload, jurisdiction and federalism, all play a role for anyone who tries exercising rights as the laws were envisioned. Many commentators wisely remind us that everyone should have the

^{* 1994,} J.D., Temple University; 1990, B.S., University of Pennsylvania. The author is rumored to be the only patent attorney ever to work for a Member of Congress. Very special thanks go to the Honorable Pauline Newman for generously reading this article, the Honorable Glenn L. Archer, Jr., for his comments on this topic, and Mr. Michael J. Remington of the Washington law firm of Drinker, Biddle & Reath, LLP, and former House Judiciary Subcommittee on Courts, Intellectual Property, and the Administration of Justice, Chief Counsel, whose help and insightful comments regarding the history of many of the cited statutes were invaluable in the transmutation of this article. Additional thanks go to my favorite legal scholar, my brother, Theodore John. The author, however, is solely responsible for any of the following views, content or possible errors.

^{1. &}quot;If he has a right, and that right has been violated, do the laws of his country afford him a remedy? The very essence of civil liberty certainly consists in the right of every individual to claim the protection of laws, whenever he receives an injury." Marbury v. Madison, 5 U.S. (1 Cranch) 137, 162-63 (1803) (establishing judicial review, yet this historic case is at its heart primarily concerning jurisdiction of the federal courts). "A patent without a meaningful remedy against infringement is like no patent at all." 142 CONG. REC. S11845 (daily ed. Sept. 30, 1996) (letter of Sen. Orrin G. Hatch, Chairman, Committee on the Judiciary, urging colleagues to oppose the enactment of 35 U.S.C. § 287(c) relating to remedies for medical procedure patents).

^{2.} Judge Posner notes that caseload crisis in the federal courts is greatest in the appellate court system. RICHARD A. POSNER, THE FEDERAL COURTS: CHALLENGE AND REFORM 244 (1996).

benefit of laws that are understandable, uniform, reliable and consistent with the intent of the lawmakers.³

The United States Court of Appeals for the Federal Circuit (the Federal Circuit) is a unique institution in the United States legal system for two reasons. First, it is unique because of its structure—a consolidated or unified appellate forum with a national jurisdiction, unlike the regional federal courts of appeals. Second, it is unique because its national jurisdiction results in an annealing, or an increased uniformity, within the bodies of law it reviews. Uniformity is a positive jurisprudential principle and a practical asset that increases certainty and minimizes waste. Today, the Federal Circuit is credited with improving the law within its jurisdiction. A worthy question for policymakers is whether the Federal Circuit's jurisdiction should be expanded in an attempt to improve additional bodies of law.

This Article considers the public policy advantages of expanding the Federal Circuit's jurisdiction to include new forms of intellectual property law. Part I begins with an overview of intellectual property law. Part I also discusses the value of uniformity within a legal system by looking at history and theory behind intellectual property law. Part II discusses the history of the Federal Circuit and evaluates the advantages and disadvantages of a national court of appeals. Part III explains that both new and old intellectual property laws benefit from the exclusive appellate review of a consolidated appellate forum. Part IV gives advice to Congress for expanding the court's jurisdiction. Finally, a few words of conclusion are offered to help guide future policymakers who address this issue.

^{3.} See COMMISSION ON STRUCTURAL ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS, FINAL REPORT, SUBMITTED TO THE PRESIDENT AND CONGRESS PURSUANT TO PUB. L. NO. 105-119, at ix (Dec. 18, 1998) [hereinafter COMMISSION ON STRUCTURAL ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS, FINAL REPORT].

Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 1982
U.S.C.C.A.N. (96 Stat.) 25.

^{5. &}quot;The geographic circuit is an ancient concept of judicial administration, imported to this country from England as a means of getting more work from judges by having them hold court throughout a region." REPORT OF THE FEDERAL COURTS STUDY COMMITTEE 113 (1990).

^{6.} See Frank M. Gasparo, Markham v. Westview Instruments, Inc. and Its Procedural Shock Wave: The Markham Hearing, 5 J.L. & POLY 723, 739-40 (1979) (noting the importance of uniformity in the federal courts). See also Markham v. Westview Instruments, Inc., 517 U.S. 370, 390-91 (1996) (citing General Elec. Co. v. Wabash Appliance Corp., 304 U.S. 364, 369 (1938) (explaining types of waste avoided through uniformity)).

^{7.} See infra note 93.

^{8.} Recently, this very question was raised by members of the federal judiciary and the bar in the course of the 1998 analysis of the regional courts of appeals. COMMISSION ON STRUCTURAL ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS, FINAL REPORT, supra note 3, at 72-73.

I. THE U.S. INTELLECTUAL PROPERTY LEGAL SYSTEM PRIMARILY GUARANTEES ECONOMIC RIGHTS AND IS STRENGTHENED BY UNIFORMITY OF THE LAW

The historical and philosophical underpinnings of intellectual property show that its purpose is to provide a narrowly-tailored, private monopoly privilege as an incentive to produce various types of works for the public good. In the United States, intellectual property rights comprise a combination of state and federal legal protection for a variety of works. These include patents (e.g., useful inventions and processes), copyrights (e.g., creative expression), trademarks (e.g., commercial logos), trade secrets (e.g., proprietary information), semiconductor mask works (i.e., computer chip technology), and the rights of publicity and privacy (e.g., famous personae).

The United States Constitution, through the Patent and Copyright Clause, vests Congress with authority in this area, although the clause is not self-executing. Congress is responsible for creating federal protective devices, such as enacting intellectual property statutes. Patents are entirely a creature of federal statute. There is no common law of patents. Likewise, Congress has the power to change these laws at its pleasure.

^{9.} Willard K. Tom & Joshua A. Newberg, Antitrust and Intellectual Property: From Separate Spheres to Unified Field, 66 ANTITRUST L.J. 167, 171 (1997); Ryan J. Swingle, Tanisi v. N.Y. Times: The Problem of Unauthorized Secondary Usage of an Author's Works, 5 J. INTELL. PROP. L. 601, 620 (1998).

^{10.} A mask work is defined under the Semiconductor Chip Protection Act

a series of related images, however fixed or encoded-(A) having or representing the predetermined, three dimensional pattern of metallic, insulating, or semiconductor material present or removed from the layers of a semiconductor chip product; and (B) in which series the relation of the images to one another is that each image has the pattern of the surface of one form of the semiconductor chip product.

¹⁷ U.S.C. § 901(a)(2) (1998).

^{11.} The dictionary definition reads, "[t]he right of an individual, especially a public figure or celebrity, to control commercial value and exploitation of his name or picture or likeness or to prevent others from unfairly appropriating that value for their commercial benefit." BLACK'S LAW DICTIONARY 1325 (6th ed. 1990).

^{12.} The Constitution grants Congress the power "[t]o promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. CONST., art. I, § 8, cl. 8.

^{13.} Wheaton v. Peters, 33 U.S. 591 (8 Pet.) 658 (1834). "Patent property is the creature of [federal] statute law and [the] incidents [of that property] depend upon [those patent] statutes." Crown Die & Tool Co. v. Nye Tool & Mach. Works, 261 U.S. 24, 40 (1923). The first patent statute was enacted in 1790. Pub. L. No. 99-523, 100 Stat. 3002 (1986).

^{14.} In re McKellin, 529 F.2d 1324, 1333 (C.C.P.A. 1976) (Markey, C.J., concurring).

^{15.} McClurg v. Kingsland, 42 U.S. (1 How.) 202, 206 (1843) (concerning

Supreme Court has upheld Congress' federal supremacy in this sphere. ¹⁶ For these reasons, all legislative activity pertaining to intellectual property—including hearings, floor activity, and new statutes—is particularly worthy of careful attention.

Federal intellectual property laws primarily guarantee economic rights.¹⁷ The intellectual property protection available on the state level acknowledges non-economic rights.¹⁸ Moreover, trade secrets and misappropriation law, primarily areas of state law, seek to protect general societal, ethical and equitable principles such as fair play and good faith.¹⁹ Non-economic rights are creative incentives within their own right, although they are not guaranteed by the bulk of federal law.²⁰

Any argument to modify a court's jurisdiction must include a sound and persuasive analysis that is based on discrete and concrete criteria. Federal intellectual property policy primarily acknowledges economic rights that are considered morally neutral. Thus, any analysis or debate concerning the law's jurisdictional

patents).

^{16.} See cases cited infra note 39.

^{17.} The major exception in current federal law is moral rights and the Visual Artists' Rights Act of 1990 (VARA). Pub. L. No. 101-650, 104 Stat. 5089 (1990). Generally moral rights are principal among non-economic rights. See The Visual Artists' Rights Act of 1989; Hearings on H.R. 2690 Before the Subcomm. on Courts, Intellectual Property, and the Administration of Justice of the House Comm. on the Judiciary, 101st Cong., 1st Sess. (1989) [hereinafter VARA Hearings] ") (statement of Professor Jane C. Ginsburg) (indicating "[m]oral rights claims go to creators' reputation, not to rights of economic exploitation). "In France, droit moral [or moral rights] encompasses four distinct rights: the rights of disclosure [deciding whether and when the work is made public], attribution, integrity [the preservation of the work from any alteration or mutilation], and withdrawal [the right of an author to reclaim or modify her work whenever it no longer accurately represents his personality]. The Berne Convention requires member countries to protect only the rights of attribution and integrity." BUSINESS TORTS § 29-297 (Joseph D. Zamore, et al. eds., 1998). See also Edward J. Damich, The New York Artists' Authorship Rights Act: A Comparative Critique, 84 COLUM. L. REV. 1733, 1734 (1984) (stating that "[f]rom the time of its creation, the artwork continuously embodies the creative personality of the author; consequently, the transfer of the material object—or the economic rights—is irrelevant to the existence of [moral] rights"); Edward J. Damich, The Right of Personality: A Common-Law Basis for the Protection of the Moral Rights of Authors, 23 GA. L. REV. 1 (1988).

^{18.} A number of states have enacted some type of moral rights laws to protect the creative rights of artists. New York and California are considered having the model laws. 3 NIMMER ON COPYRIGHT § 8D.09 nn. 2-8 (1997) (noting that Arizona, Connecticut, Georgia, Iowa, Maine, Massachusetts, New Jersey, New Mexico and Rhode Island have enacted "moral rights" laws).

^{19.} Gordon L. Doerfer, The Limits of Trade Secret Law Imposed by Federal Patent and Antitrust Supremacy, 80 HARV. L. REV. 1432, 1432 (1967).

^{20. &}quot;The theory of moral rights [teaches us] that they result in a climate of artistic worth and honor that encourages the author in the arduous act of creation." VARA Hearings, supra note 17 (statement of Ralph Oman, Register of Copyrights).

aspects is justifiably limited to economic and practical factors, rather than esoteric and non-quantifiable issues (e.g., the scope of the moral right of reputation in copyright). The relevant economic factors include production volume, cost, and certainty.

The economics of artistry abhor uncertainty, just as all industrial activity abhors uncertainty. In the business realm, this activity refers to the initiation, operation and harvesting of an investment. The same proposition equally applies to the economics underlying the innovative processes used in the furtherance of other types of intellectual property. One safely concludes, after jointly reading these propositions, that strong intellectual property rights require certainty regarding their corresponding legal remedies.

A. The Economics of Uniformity and Uncertainty

Congress' policy decisions—both affirmative choices and abstentions—guarantee worldwide economic consequences. Today, the breadth and dynamism of the global economy present a fierce competition for resources. Factors such as the mobility of capital mean that industry and investors face increasingly difficult choices as to how best devote any unit of resources, whether it is a single dollar or one hour of toil.²¹ At one time the choice might have been very simple—whether to put one's money into the proverbial mattress. This traditional choice is now supplemented by many sophisticated investment options, including investing in a product or firm, the mutual fund market or a wide array of other financial devices.

As new economic rights, such as intellectual property rights, are established, the choices for investing resources for their most productive use multiply. For individuals and firms, the marketplace consequence posed by any new right is the creation of a new choice: where to invest? The question is whether one should place resources into works secured by the traditional creative outlets (such as those secured by patents and copyrights) or the activities secured by the new rights (such as database compilation). This resource allocation dilemma is especially true when the choices are mutually exclusive.

Establishing rights in compilations of information or databases is equivalent to restoring the legal protection for works that were protected under the traditional "sweat of the brow" doctrine.²² This poses a dilemma, for example, in the case of the

^{21.} Judge Posner notes "one of the most tenacious fallacies about economics [is the notion that] it is about money. On the contrary, it is about resource use, money being merely a claim on resources." RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 6 (3d ed. 1986).

^{22.} See Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 352 (1991) (holding that a residential phone directory, or "white pages," did not

database protection bill that would reinstate the protection for the compilations of information. This property right is mutually exclusive from the traditional copyright protection for original creative expression. A computer program could simultaneously enjoy protection under the patent and copyright laws. Yet, the recent database and compilations bill proposals specifically would not confer any additional protection on a computer program.²³ As a result of the proposed bill's limitation, the question now is whether it is more economically rational for one to invest resources in works of original creativity as opposed to the sweat of brow effort of compiling facts.

The Supreme Court's determination that a minimum level of requisite originality is necessary for a work under the Constitution's Copyright Clause forces many new rights to be established upon another constitutional basis.²⁴ It is likely that many of the new intellectual property rights will confer economic rights mutually exclusive of those subject to the creative mandate of the Patent and Copyright Clause. Instead, the Constitution's Commerce Clause could be the constitutional basis for many of the new forms of intellectual property.²⁵ In fact, this is one basis for the legal protection underlying semiconductor chip mask works.²⁶ It is also likely to be the basis for unoriginal types of works, such as compilations of information, vessel hull designs, and a national right of publicity.

This nicely frames the forthcoming discussion—that an analysis of the exploitation of these rights must recognize that this is about commercial and economic activity and not about high-level creativity or abstraction.²⁷ The key focus in analyzing what

contain the necessary level of original creativity to qualify for copyright protection, and striking down the traditional sweat of brow doctrine). The Court notes that with "sweat of the brow' or 'industrious collection,' the underlying notion was that copyright was a reward for the hard work that went into compiling facts," without regard to originality in authorship. Id.

^{23. &}quot;The Collections of Information Antipiracy Act," H.R. 2652, 105th Cong., 1st Sess. § 2, 144 CONG. REC. H3399 (1998); H.R. 354, 106th Cong., 1 Sess., 145 CONG. REC. E84 (1999).

^{24.} Feist Publications, 499 U.S. at 363.

^{25.} U.S. CONST., art. I, § 8, cl 3. Harvard Professor Arthur Miller testified, "the use of two constitutional clauses to protect a copyrighted work is nothing more than using a belt and suspenders to protect that work." The Semiconductor Chip Protection Act of 1983, Hearings on S. 1201 Before the Subcomm. on Patents, Copyrights, and Trademarks of the Senate Comm. on the Judiciary, 98th Cong., 1st Sess. 91 (1983).

^{26.} The Semiconductor Chip Protection Act of 1983, Hearings on S. 1201 Before the Subcomm. on Patents, Copyrights, and Trademarks of the Senate Comm. on the Judiciary, 98th Cong., 1st Sess. 91 (1983).

^{27.} These species of legal yet intangible property may also be called "industrial property" or "unintellectual property" depending on your perspective.

factors secure or undermine the incentives for investment activity is more commonly known as risk.

Risk arises from many different avenues. Any non-uniformity²⁸ in the application of the laws implies risk, decreases certainty²⁹ and leads to waste.³⁰ The greater the non-uniformity in the legal system, the greater the risk. The intercircuit conflicts that exist among the regional appellate courts concerning the application of economic rights laws create non-uniformity and increase risk.³¹

Economic theory makes several assumptions about risk. In general, the decision of whether, or how much, to invest is a function of the firm's risk preference and its ability to estimate the probability of success.³² Economists list several questions for a prospective inventor to gauge uncertainty:

- (1) the nature of the payoff;
- (2) the degree to which the information is available or outside her control; and
- (3) the ability to reduce relevant uncertainties.³³

Increasing uniformity within a system, as with annealing the law, decreases many of the relevant uncertainties. In addition, another very important factor for this problem's analysis is the extent to which a decision-maker can keep the set of possible alternatives open, and thus not commit, until more information

^{28.} The dictionary defines "uniformity" as "[c] onforming to one rule, mode, pattern, or unvarying standard; not different at different times or places; applicable to all places or divisions of a country. Equable; applying alike to all within a class; sameness . . . the uniformity must be coextensive with the territory to which it applies." BLACK'S LAW DICTIONARY 1530-31 (6th ed. 1990).

^{29.} The dictionary definition reads, "[a]bsence of doubt; accuracy; precision; definite. The quality of being specific, accurate, and distinct." *Id.* at 225.

^{30. &}quot;[U]ncertainty about what the law requires or permits will encourage wasteful litigation; and where litigation cannot be avoided, the existence of apparently inconsistent appellate decisions will add to the costs and other burdens of court proceedings." Arthur D. Hellman, Jumboism and Jurisprudence: The Theory and Practice of Precedent in the Large Appellate Court, 56 U. CHI. L. REV. 541, 544 (1989).

^{31. &}quot;[I]t is important not to equate uncertainty with inconsistency. Inconsistency does lead to uncertainty, but uncertainty may have many other causes." *Id.* at 597.

^{32.} Rebecca Eisenberg, Patents and the Progress of Science: Exclusive Rights and Experimental Use, 56 U. CHI. L. REV. 1017, 1025 n.33 (1989). The author notes that firms tend to over predict success. Id.

^{33.} Richard R. Nelson, The Link Between Science and Invention: the Case of the Transistor, in The RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 550-51 (Princeton Univ. Press 1962). See generally Ronald Coase, The Problem of Social Cost, 3 J.L. & ECON. 1 (1960).

regarding the consequences of any choice is received.³⁴ These choices embody the ability to assert one's economic rights and to promote socially constructive activity.

Policymakers and firms have available several methods to minimize, if not wholly eliminate, the risk and uncertainty for investment. In theory, a firm can self-insure against losses attributed to the inventive process. Economic theory dictates that when a device is available that can insure against loss, it has the positive effect of increasing investment to a higher level that is closer to the societal optimum. Accordingly, economist Kenneth Arrow postulated that if individuals cannot avoid risk, and there is no "insurance" mechanism available, then there is less invested on risky activities than is socially desirable.

As the risk of initiating an investment increases, so does the likelihood of under-investment in these activities.³⁸ The public policy problem is that non-uniformity in the law translates into societal risks. This is irrefutable and also true for intellectual property and its related activities. Under-investment in medicine poses serious risks for the public health. Under-investment in academic resources and libraries pose risks for the public too. Inventorship, authorship, film-making, songwriting and compiling facts are risky activities from an economic perspective.

Congress has the ability to perfect economic rights through legislation providing for the uniform application of the laws. Hence it can minimize certain risks by either substantive or procedural approaches. This policy option is especially evident from the intellectual property fields where Congress has tried to guarantee uniformity in the past.

B. Ensuring Uniformity in Intellectual Property

The Supreme Court emphasized that the Patent and Copyright Clause of the United States Constitution reflects a fundamental policy to ensure the national uniformity of the intellectual property laws. ³⁹ It is noted, "[g]reater [legal] certainty and predictability would foster technological growth and industrial

^{34.} Nelson, supra note 33, at 550-51.

^{35.} Kenneth J. Arrow, Economic Welfare and the Allocation of Resources for Invention, in The Rate and Direction of Inventive Activity: Economic and Social Factors 609, 616 (1962).

^{36.} Id. at 612.

^{37.} Id. at 617.

^{38.} Eisenberg, supra note 32, at 1037.

^{39.} See Compco Corp. v. Day-Brite Lighting, Inc., 376 U.S. 234, 237-38 (1964) (holding that intellectual property left within the public domain by Patent and Copyright laws is not entitled to patent protection); Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 231-32 (1964) (holding that government cannot prevent copying information within the public domain).

innovation and would facilitate business planning." The national uniformity present in intellectual property law is considered a major federal policy objective based on this area's vast history and tradition, as well as its import in promoting industry and innovation. Congress attempts to execute its constitutional goals through legislation affecting both the field's substantive and procedural aspects.

Economic theory states that uniformity in intellectual property laws serves everyone—authors, inventors and the public. The constitutional objective behind intellectual property is providing a limited private incentive for the public benefit. Uniformity in the law serves the public in several important ways. A strong intellectual property system is not only credited with getting new works, products, and services to the public. It also helps moderate prices because it secures relatively low prices by distributing creation costs (the initial investment) over time and among many users. It promotes diverse, voluntary conduct. Uniformity also brings about the certainty to permit users to maximize their enjoyment of works and products in the most economically sound fashion possible.

The important economic and societal interests at stake make intellectual property a frequent beneficiary of statutory attempts for uniformity, especially regarding the substantive provisions of the law. Recent legislative activity in intellectual property illustrates an attempt to increase uniformity and certainty, while minimizing waste. One motivation may be the push of special interest groups within the business community. Regardless, the

^{40.} Rochelle Cooper Dreyfuss, The Federal Circuit: A Case Study in Specialized Courts, 64 N.Y.U. L. REV. 1, 7 (1989).

^{41.} The four traditional goals of the federal intellectual property law system are considered to be innovation, public disclosure, free competition, and uniformity. Note, Patent Preemption of Trade Secret Protection of Inventions Meeting Judicial Standards of Patentability, 87 HARV. L. REV. 807, 819 (1974).

^{42.} See Tom W. Bell, Fair Use v. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine, 76 N.C. L. REV. 557 (1998) (arguing that technological means relating to the licensing of copyrighted material will narrow the fair use doctrine). As a general rule, "as property rights to an asset grow more uncertain, the discounted present value of the income stream derived from the asset decreases." Id. at 588 n.140, (citing DAVID D. FRIEDMAN, PRICE THEORY 271-72 (1986)).

^{43. &}quot;Lawmakers enacted the Copyright Act to cure an alleged case of market failure: creating a work can cost authors a good deal, whereas copying a work costs free riders very little." *Id.* at 582. *See also* PAUL GOLDSTEIN, COPYRIGHT'S HIGHWAY: FROM GUTENBERG TO THE CELESTIAL JUKEBOX (1994).

^{44. &}quot;In general, an asset's current price internalizes the value of its future income stream." Bell, *supra* note 42, at 588, (citing EDGAR K. BROWNING & JACQUELINE M. BROWNING, MICROECONOMIC THEORY AND APPLICATIONS 118-20 (1983) and DAVID D. FRIEDMAN, PRICE THEORY 265-67 (1986)).

results were beneficial to both individual rights-holders and arguably to the public. Everyone benefits through increased voluntary activity (e.g., use and marketplace transactions), the promotion of innovation, and a level of litigation closer to the societal optimum. Wasteful litigation imposes costs throughout society, including on firms, rights-holders, and consumers. Wasteful litigation also strains the limited resources of the government and the courts.

In copyright law, several such important changes were adopted in the monumental 1976 law revisions including several attempts for providing certainty for both authors and users. The authors and owners of copyrights benefited under the 1976 copyright act through its establishment of federal preemption and clearer definitions and standards developed regarding the scope of copyright, its term, and fair use. The such that the several such as the

In recent years, there were other important substantive legislative actions striving to anneal other forms of intellectual property by increasing legal uniformity and certainty. Legislation in recent congressional sessions attempted to enact additional reforms for patent⁴⁷ and trademark law.⁴⁸ Recent bills establishing new species of intellectual property also attempt to ensure uniformity by preempting state law.⁴⁹

^{45.} Jessica D. Litman, Copyright, Compromise, and Legislative History, 72 CORNELL L. REV. 857, 887 (1987).

^{46.} Id. at 886. In addition, the academic community and other users enjoyed at least a level of "minimal certainty" in areas such as fair use for educators regarding photocopying and other common uses. Id. at 887. See 17 U.S.C. § 107 (1994); L. RAY PATTERSON ET AL., THE NATURE OF COPYRIGHT: A LAW OF USER'S RIGHTS 191-224 (1991).

^{47.} In patent law, a patent's term of duration was changed from 17 years from issuance to 20 years from the application's filing. 35 U.S.C. § 154(a)(2) (1994). This change arises from the U.S.'s implementation of the General Agreement on Tariffs and Trade (GATT). Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809 (1994). Despite this attempt to delineate a uniform and certain patent term, there are a variety of procedures for extending a patent's term. A term can be expended, for example, in response to time lost due to Federal Drug Administration review of pharmaceutical or medical devices. Drug Price Competition and Patent Term Restoration Act, 35 U.S.C. § 271(e) (1994). There were also attempts to permit the early publication of pending patent applications. H.R. 359, 104th Cong., 1st Sess. (1995) (introduced by Rep. Rohrabacher for early patent application publication at five years of pendency); H.R. 1733, 104th Cong., 2d Sess. (1995) (introduced by Rep. Moorhead for 18-month early patent application publication); H.R. 400, 105th Cong., 1st Sess. (1997) (omnibus patent reform package introduced by Rep. Coble that includes 18-month publication); S. 507, 105th Cong., 2d Sess. (1997) (omnibus patent reform introduced by Sen. Hatch that includes 18-month publication).

^{48.} The 1997 Trademark Dilution Act created a minimum national uniform standard for trademark dilution claims. Pub. L. No. 104-98, § 43(c), 15 U.S.C. § 1051 et seq. (1994).

^{49. &}quot;Collections of Information Antipiracy Act" H.R. 2652, 105th Cong., 1st

In addition to the many statutory provisions ensuring uniformity in the substance of the laws in a particular field, legal history shows that proper prescription of procedural rules crafting court jurisdiction increases uniformity.

C. Federal Jurisdiction and Uniformity

In tracing the legal uniformity, clarity, and certainty that the U.S. legal system provides to encourage creative and industrial activity, one must study the jurisdiction of the courts. Regardless of how we structure the intermediate appellate tier of review, the United States Supreme Court, the nation's highest court of last resort, remains the ultimate consolidated court of final appeal. Its place at the top of the legal hierarchy is reserved to resolve those cases that it decides present the appropriate level of legal abstraction or national importance.⁵⁰

If one of the most desirable, if not notable, features of the U.S. intellectual property system is its uniformity, then it is a result of years of congressional refinement upon federal court jurisdiction and its legal procedures. This is especially true with patent law. For this reason patent law supplies a useful case study for the proposition that the forum and the dispute resolution procedures can positively shape the substance of the law.

Congress has great latitude in this area since, as discussed earlier, the substance of patent law is predicated on one constitutional foundation,⁵¹ and the jurisdiction of the federal courts upon another.⁵² Based on their experience with the Articles of Confederation, the Founders realized the inherent problem of competing state patent systems. As a result they took care to prepare for a single federal system through the Patent and Copyright Clause. The Supreme Court reaffirmed the federal supremacy of the substance of patent law in the Sears-Compco cases.⁵³ In analyzing the historical importance of the legacy of

Sess. § 2 (1997). Section 1205(b) reads:

Preemption of State Law.- On or after the effective date of this chapter, all rights that are equivalent to the rights specified in section 1202 with respect to the subject matter of this chapter shall be governed exclusively by Federal law, and no person is entitled to any equivalent right in such subject matter under the common law or statutes of any State, State laws with respect to trademark, design rights, antitrust, trade secrets, privacy, access to public documents, and the law of contract shall not be deemed to provide equivalent rights for purposes of this subsection.

Id. § 1205(b).

^{50.} See Robert Bork, Neutral Principles and Some First Amendment Problems, 47 IND. L.J. 1 (1971) (presenting thoughts on how the courts should expand constitutional doctrine).

^{51.} U.S. CONST., art. I, § 8, cl. 8 (concerning patents and copyrights).

^{52.} U.S. CONST., art. III, § 1 (concerning judicial power).

^{53.} See cases cited supra note 39.

uniformity of in these areas, Justice Black takes care to note that subject matter jurisdiction⁵⁴ predates general federal diversity jurisdiction.⁵⁵

The broad interpretation of 28 U.S.C. § 1338's "arising under" language provides that a vast variety of domestic controversies in this area are subject to the federal courts, ⁵⁶ as well as limited extraterritorial circumstances. ⁵⁷ The jurisdictional statute contributes to the substantive uniformity in the law. ⁵⁸

The early patent laws reflected Anglo-American principles and procedures of the time, and with this, the historical separation between an action at law and an equitable remedy.⁵⁹ However, this created a separation of patent remedies available between the state and federal courts.⁶⁰ This legal tension posed severe

^{54. 28} U.S.C. § 1338 (1948). This section was enacted in 1948, yet contains the provisions from earlier statutes. Section 1338 reads:

⁽a) The district courts shall have original jurisdiction of any civil action arising under any 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.

⁽b) The district courts shall have original jurisdiction of any civil action asserting a claim of unfair competition when joined with a substantial and related claim under the copyright, patent, plant variety protection, or trademark laws.

²⁸ U.S.C. § 1338 (1948) (June 25, 1948, § 1, 62 Stat. 931; Dec. 24, 1970, Pub. L. 91-577, § 143(b), 84 Stat. 1559). Section 1338 is a consolidation of two prior federal statutes regarding the jurisdiction of the federal courts. The first was 28 U.S.C. § 41(7) (1911), which states:

The district courts shall have original jurisdiction . . . of all suits at law or in equity arising under the patent, the copyright, and the trade-mark laws.

²⁸ U.S.C. § 41(7) (1911). The second statute was 28 U.S.C. § 371(5) (1911), that reads:

The jurisdiction vested in the courts of the United States in the cases and proceedings hereinafter mentioned, shall be exclusive of the courts of the several states. . . . Of all cases arising under the patent-right, or copyright laws of the United States.

²⁸ U.S.C. § 371(5) (1911).

^{55. 28} U.S.C. § 1332 (1998). See Sears, Roebuck & Co. v. Stiffel, 376 U.S. 225, 231 n.7 (1964).

^{56.} Osborn v. Bank of the United States, 22 U.S. (1 Wheat.) 738, 822-27 (1824).

^{57.} See Update Art, Inc. v. Modin Publ'g, Ltd., 843 F.2d 67, 73 (2d Cir. 1988) (stating the general rule that there is no extra territorial jurisdiction, except where the infringement "permits further reproduction abroad").

^{58.} Congress considers the language of § 1338 "substantial" and unlikely to spur frivolous claims into the federal district, and likewise, federal circuit courts. S. REP. No. 275, 97th Cong., 1st Sess. (1981), reprinted in 1982 U.S.C.C.A.N. 11, 29 [hereinafter Federal Circuit Report].

^{59.} The first patent statute was enacted in 1790. Act of Apr. 10, 1790, 1 Stat. 109.

^{60.} See Jane C. Ginsburg, No "Sweat"? Copyright and Other Protection of Works of Information after Feist v. Rural Telephone, 92 COLUM. L. REV. 338,

difficulties for many patent owners.

Early in the Republic's history, Congress relied on its federal supremacy for its legislative attempts to clarify the uniformity of the patent law.⁶¹ In the second patent act that Congress passed in 1793, special care was taken to grant the federal courts concurrent jurisdiction over patent infringement claims and to prevent the proliferation of state patents.⁶² Congress finally developed the notion for subject matter jurisdiction for copyright and patents by continually narrowing, and finally ending the requirement of diversity for these cases.⁶³ This trend of tailoring the jurisdiction of court, in turn, increased uniformity in the law. The trend to promote legal uniformity continues today and the Federal Circuit is an important example.

The uncertainty arising out of the non-uniform jurisdictional procedures was a morass that in some cases rendered patent rights virtually meaningless. The Patent Act of 1793, despite all of its good, still effectively allowed for the state courts to declare a federal patent invalid in many cases. The law-equity distinction also threatened patent rights due to anomalous situations arising under various procedural postures. Congress did not confer

^{365 (1992) (}discussing the necessity of invoking the federalism debate in the course of analyzing the role of uniformity intellectual property).

^{61.} This comports with the intent of the Constitution's Patent and Copyright Clause. See THE FEDERALIST NO. 43, at 271-81 (James Madison) (Bantam Books 1982) for the Framers' intent.

^{62.} Act of Feb. 21, 1793, 3d Cong., 1 Stat. 318, 322.

That where a state, before its adoption of the present form of government shall have granted an exclusive right to any invention, the party, claiming the right, shall not be capable of obtaining an exclusive right under this act, but on relinquishing his right under such particular state, and of such relinquishment his obtaining an exclusive right under this act shall be sufficient evidence.

Id. § 7.

^{63.} A plaintiff was able to bring a copyright case to the federal circuit courts, which had original jurisdiction over copyright cases, if there was sufficient diversity jurisdiction in place, consisting of parties from different states and an amount of at least \$500 in controversy. Act of Feb. 15, 1819, 15th Cong., 2d Sess., 3 Stat. 481. In 1873, the federal court received exclusive jurisdiction over patent and copyright cases. Act of Dec. 1, 1873, § 711, 43d Cong., 1st Sess. In 1875, general federal question jurisdiction was established, but the requirement for a minimum amount in controversy was retained.

^{64.} Doerfer, *supra* note 19, at 1439. Today, state courts may also decide validity in certain circumstances. Finch v. Hughes Aircraft Co., 926 F.2d 1574, 1581 n.5 (Fed. Cir. 1991) (stating that "[i]n at least some cases, a state court deciding a suit . . . may consider . . . invalidity").

^{65.} In certain cases, a patent owner was unable to recover substantial monetary relief even though the infringer may have derived high profits from his activities:

The law-equity distinction created a particular hardship for patent owners who (1) could not prove lost profits or an established royalty in an action at law, and (2) could not allege a basis for equitable

equitable jurisdiction upon the federal courts for patent cases until later in the Nineteenth Century. Thus, the federal regional circuit courts fully and finally gained jurisdiction in both cases at law and in equity with the Patent Act of 1836. Of course, the circuit courts of that era were quite different from the modern institution of today's judiciary. The need for uniformity in patent appeals continued even as the modern federal system developed.

The establishment of the regional circuit courts of appeals bred other problems. Again, the severe intercircuit conflicts within the federal tier of review rendered some patents worthless and totally deprived them of their national character. A great concern regarding patent conflicts among the circuits emerged under Kessler v. Eldred, which held that the validity of a patent was limited to its circuit. The result was a balkanization among the circuits where a manufacturer could send patented goods with impunity into the one judicial circuit, even when the underlying patent was invalidated by the court of another circuit. A 1959 Senate Judiciary Committee study recounted these anomalous

jurisdiction to issue an injunction because the patent had expired or the defendant had ceased his infringing activity.

DONALD S. CHISUM, 8 CHISUM ON PATENTS: A TREATISE ON THE LAW OF PATENTABILITY, VALIDITY, AND INFRINGEMENT § 10-20 (1998) [hereinafter CHISUM ON PATENTS].

^{66.} There is continuing academic debate as to whether federal jurisdiction first became exclusive under the 1800 Act or the 1836 Act. Donald S. Chisum, The Allocation of Jurisdiction Between State and Federal Courts in Patent Litigation, 46 WASH. L. REV. 633, 635-36 (1971). Section 3 of the Act of 1800 provides that damages "may be recovered, by action on the case founded on this and the above-mentioned act, in the circuit court of the United States, having jurisdiction thereof." Act of Apr. 17, 1800, ch. 25, § 3, 2 Stat 37. (1800). Section 17 of the Act of 1836 states:

That all actions, suits, controversies, and cases arising under the law of the United States, granting or conforming to investors the exclusive right to their inventions or discoveries, shall be originally cognizable, as well in equity as at law, by the circuit courts of the United States, or any district court having the power and jurisdiction.

Act of July 4, 1836, ch. 357, § 17, 5 Stat. 117.

^{67.} Act of July 4, 1836, ch. 357 § 17, 5 Stat. 117. The statute provides that "all actions . . . and cases arising under any law of the United States, granting or confirming to inventors the exclusive right to their inventions or discoveries, shall be originally cognizable, as well in equity as at law, by the circuit courts of the United States." CHISUM ON PATENTS, supra note 65, § 21-7. Congress first attempted to confer law and equity jurisdiction to the circuit courts in the Patent Act of 1819. Act of Feb. 15, 1819, ch. 19, 3 Stat. 481-82. However, it is observed that this did not automatically confer a right to equitable relief, it merely eliminated certain jurisdictional obstacles. CHISUM ON PATENTS, supra note 65, § 20-13.

^{68. 206} U.S. 285 (1907).

^{69.} Single Court of Patent Appeals – A Legislative Hearing, Study of the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary, 85th Cong., 2d Sess. 13 (1959).

results:

Ever since... patent appeals to the circuit courts of appeal were substituted for direct appeals to the Supreme Court, patent appellate procedure has been the target for criticism because of the delay and inconsistencies supposedly resulting from nine different jurisdictions—and subsequently, even more—reaching independent decisions on the validity of patents, despite the fact that the national reach of the patent grant makes a single uniform national decision highly desirable.⁷⁰

This echoes the same concerns that could be said of other contemporary types of intellectual property and trade laws arising from severe intercircuit conflicts.

The ultimate result of consolidating federal appellate jurisdiction is a uniformity in the application of the laws. The unique concerns of patent law were a driving concern in this pioneering approach. Yet, despite the clear result, Congress's true motivation in enacting the statute is not clear even today. Professor Donald Chisum notes that neither uniformity nor technical expertise of the federal bench were the primary goals of Congress in enacting these statutes. Instead the intended benefit may have been overcoming the defects of the "perceived impropriety" of the state court systems reviewing some patent cases. 71

One of the most important and recent jurisdictional modifications that demonstrates that process can positively shape the substance, again was in patent law with the Federal Circuit's establishment in 1982. By creating this consolidated appellate forum, Congress secured an even greater degree of uniformity and certainty for patent law and the other fields within its jurisdiction.

D. Uniformity and Circuit Conflicts

While the federal courts contribute to the remarkable success of increased uniformity, it is not completely possible to structure a forum to foster absolute uniformity. Large regional courts of appeals prove that conflicts may emerge from differences among various intracircuit panels. It is worth discussing the role of the panel within the appellate court structure.

The magnitude of the intracircuit inconsistency problem is not directly related to the size of the circuit court and its total

^{70.} *Id.* Testimony in the study of Frederick P. Fish noted, "[w]hen a patent comes before . . . a circuit court of appeals, no other court is bound by that adjudication, except as between the particular parties and their privies." *Id.*

^{71.} Chisum, supra note 66, at 637.

^{72.} The Federal Circuit applies the procedural law of the regional circuit where the case was tried. Atari, Inc. v. J S & A Group, Inc., 747 F.2d 1422, 1438-39 (Fed. Cir. 1984).

number of judges.⁷³ In addition, the problem of inconsistency may be inherent to the nature of our legal system.⁷⁴ Some commentators believe that the inconsistency arising from panel decisions is a relatively minor problem of the current appellate system and not a justification for the creation of specialty courts of appeals.⁷⁵

The real threat that inconsistent panels present to uniformity in the law is another important factor in examining an appellate court structure, its benefits to litigants, and the shaping of the law. This may be addressed by a number of procedures, including the use of *en banc* panels. The proposal to create an intercircuit tribunal was considered and rejected by Congress several years ago. Another way to reduce this uncertainty and to reduce the number of these various regional courts of appeals intracircuit conflicts is to reduce the number appellate courts that consider these issues. A consolidated court of appeals such as the Federal Circuit is our only permanent example of such a system. It is considered a superior model for a tribunal than the specialty court.

Specialty courts are viewed as a solution to the frustration arising from the intercircuit conflicts among the regional courts of appeals. Judge Posner suggests that one solution to the crisis of

^{73. &}quot;[A] homogenous bench of twenty-eight is no more likely to issue inconsistent decisions than an equally homogenous bench of twelve. Conversely, an ideologically divided court of twelve will be no less prone to inconsistency than an ideologically divided court of twenty-eight." Hellman, supra note 30, at 546.

^{74. &}quot;[M]uch of the concern about unpredictability in a large court of appeals rests ultimately on an impatience with the case-by-case mode of adjudication that is the essence of our common law system." *Id.* at 598.

^{75. &}quot;Occasional inconsistencies in panel decisions may be a small price to pay... against the likely consequences of establishing specialized appellate courts—fragmentation of the law, tunnel vision, interest group dominated appointments, and centralization of power." *Id.* at 600.

^{76. &}quot;[E]n banc decisions contributed only minimally to the preservation of uniformity in the law of the Ninth Circuit." *Id.* at 550.

^{77.} REPORT OF THE FEDERAL COURTS STUDY COMMITTEE, Apr. 2, 1990, at 109.

^{78.} Currently, specialized appellate courts of limited jurisdiction include the U.S. Court of Military Appeals, the Foreign Intelligence Surveillance Court of Review. Specialized trial courts include the Bankruptcy Courts, the Tax Court, the Court of International Trade, the Court of Federal Claims. See Dreyfuss, supra note 40, at 3 n.17. S. Jay Plager notes:

⁽¹⁾ there are important conceptual and perhaps operational differences between a 'specialized' court and a non-regional subject matter court; (2) untested assumptions about such courts and their judges-their incentives, shared beliefs, origins, psychopathology, what have you-are not particularly useful; (3) little is known, empirically and verifiably, about whether such courts behave differently than geographically-based appellate courts, and if so, how, in what ways, and with what consequences.

S. Jay Plager, The United States Courts of Appeals, the Federal Circuit, and

caseload and complex subject matter of the federal courts is to implement a system of many, small specialized courts. Yet, the specialty court is not a judicial panacea and is unfavored for many reasons. There is a strong sentiment that generalist judges improve the legal system through the cross-pollinization of legal ideas. (This oddly presumes that some judges are intellectually isolated by their court and are never in contact with any new ideas brought forward from the many diverse avenues of legal community, litigants, clerks, and journals.)

The lesson of the intracircuit conflict is that a jumbo-sized appellate court must be avoided. In practice, a consolidated national court of appeals of a moderate size demonstrates its merit in addressing a variety of problems at an acceptable cost.

II. THE FEDERAL CIRCUIT: HISTORY, ADVANTAGES, AND DISADVANTAGES

The Federal Circuit's history is extensively described in many sources and recounts many distinguished figures. ⁸¹ Justice Harlan is credited with advancing the idea of the court when he suggested a "national court of last resort" for patent appeals in 1887. ⁸² Judge Learned Hand must also be credited, because of his long-lived interest in increasing the judiciary's expertise in this area. Judge Hand testified in favor of a national appellate patent court before the Senate Judiciary Committee in 1958. ⁸³ The issue came to fruition as part of the Carter Administration's efforts to improve the judiciary and with the President's appointment of Griffin B. Bell as U.S. Attorney General, and Daniel J. Meador as Assistant Attorney General. The Honorable Pauline Newman testified in support of the court before she joined the ranks of its distinguished

the Non-Regional Subject Matter Concept: Reflections on the Search for a Model, 39 Am. U. L. REV. 853, 866 (1990).

^{79.} POSNER, supra note 2, at 245.

^{80.} Id. at 258.

^{81.} Federal Circuit Report, supra note 58, at 11. See generally THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT: A HISTORY, 1982-1990 (Marion T. Bennett, ed.)

^{82.} See Howard T. Markey, The Court of Appeals for the Federal Circuit: Challenge and Opportunity, 34 Am. U. L. REV. 595, 596 (1985) (discussing the historical development of the recognition for the need of uniformity in specific fields of law).

^{83.} Single Court of Patent Appeals - A Legislative Hearing, Study of the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Comm. on the Judiciary, 85th Cong., 2d. Sess. 22 (1959). Mr. Frederick P. Fish of Boston testified in favor of such a court on behalf of the American Bar Association. Id. at 12-13. See also Learned Hand, Historical and Practical Considerations Regarding Expert Testimony, 15 HARV. L. REV. 40, 58 (1901) (formulating the position that specialization of courts, especially where expert testimony is necessary, would form a more consistent line of precedent).

jurists.84

Briefly, the origins of the Federal Circuit reflect decades of work to achieve several important goals. The first is procedural—the interest in improving the national appellate structure. The second is substantive—the interest in improving certain fields of law by nationwide uniformity where a "special need" is identified. At the time, one of the greatest special needs resided with improving intellectual property, and in turn, the nation's industrial base hand-in-hand with a totally new court structure. The court's goals were enumerated as creating an appellate forum for cases where there is a special need for nationwide uniformity, improving the administration of patent law through a centralized appeals process, and improving the procedures for government claims cases.

Ironically, the establishment of the Federal Circuit was possible because it earned support from some of the key opponents of "specialized courts." Their support was based on the uniqueness of patent law. The new court—a court of consolidated jurisdiction that is not a specialty court—has jurisdiction comprising that of the predecessor courts and those fields of law

^{84.} See Pauline Newman, The Federal Circuit: Judicial Stability or Judicial Activism, 42 Am. U. L. REV. 683, 687-88 (1993) [hereinafter The Federal Circuit: Judicial Stability or Judicial Activism] (expressing her view that a centralized court would provide "a greatly enhanced degree of predictability of the outcome of patent litigation"). There are many other professionals who worked toward the court's establishment, including Congressmen Robert W. Kastenmeier and Thomas F. Railsback, Senators Dennis W. DeConcini and Robert Dole, and House Judiciary Committee staff Thomas E. Mooney, Michael J. Remington, and Bruce Lehman. Readers are encouraged to review the previously cited historical sources regarding the numerous other individuals in the public and private sectors who made a contribution in this effort.

^{85.} Federal Circuit Report, supra note 58, at 1. The report cites some of the prominent studies of the time regarding the federal judiciary's structure, including the Freund Committee (1972) and the Commission on Revision of the Federal Court Appellate system (the "Hruska" Commission) Pub. L. No. 92-849, 86 Stat. 807 (Oct. 13, 1972), as amended by Pub. L. No. 93-420, 88 Stat. 1153. Id. at 11.

^{86.} In addition, Congress sought to improve the resolution of trials for claims against the federal government. Federal Circuit Report, supra note 58, at 12.

^{87.} The Federal Circuit: Judicial Stability or Judicial Activism, supra note 84, at 684 (citing Advisory Comm. on Indus. Innovation, U.S. Dep't of Commerce, Final Rep. (1979)).

^{88.} Federal Circuit Report, supra note 58, at 12.

^{89.} Senator Patrick J. Leahy, an opponent of specialty courts even for complex litigation such as that concerning environmental and tax laws, supported the establishment of the Federal Circuit, when he stated "I believe that patent law stands apart from virtually every other legal discipline both in its extreme focus on science and technology and its need for uniformity in decision-making." Federal Circuit Report, supra note 58, at 39.

that were predicted to benefit from national treatment. Ongress established the Federal Circuit in 1982 by combining the Court of Customs and Patent Appeals, and the Court of Claims.

The Federal Circuit, the only permanent consolidated national court of appeals, is a departure from the traditional regional appellate court. While its structure represents a philosophical and pragmatic change, its operation maintains traditional values. It keeps the judiciary's enduring goals of resolving controversies and shaping the law. The Federal Circuit continues the traditional, historical goals and functions of the appellate court system. These are a part of our legal system that even predate the Evarts Act's passage that, a century ago, established the traditional three-tier federal judicial system of today.

There are several jurisprudential justifications for a unified court of appeals. The Federal Circuit is credited with an annealing of the law through the important advantages of increasing uniformity, 3 doctrinal stability and predictability within the bodies of law in its jurisdiction. 5 Other advantages include a reduction in intercircuit conflicts. 6 of waste and costs.

^{90.} The Federal Circuit's jurisdiction is provided under 28 U.S.C. § 1295. See infra pp. 604-05 and note 129.

^{91.} Federal Courts Improvement Act of 1982, supra note 4.

^{92.} The Temporary Court of Appeals (TECA) was another consolidated appellate court, but it was not permanent. Congress established TECA in 1971 as part of the Economic Stabilization Act Amendments, which established price controls. TECA was abolished in 1992. CHARLES ALAN WRIGHT, ET AL., FEDERAL PRACTICE AND PROCEDURE: JURISDICTION AND RELATED MATTERS, § 4105 (2d ed. 1988 & Supp. 1999).

^{93.} Past United States Patent and Trademark Office Commissioner Harry F. Manbeck, Jr. remarked "[t]he first ten years of the Federal Circuit jurisprudence has restored efficiency and reliability to the patent law." Jon F. Merz & Nicholas M. Pace, Trends in Patent Litigation: The Apparent Influence of Strengthened Patents Attributable to the Court of Appeals for the Federal Circuit, 76 J. PAT. & TRADEMARK OFF. SOCY 579, 579 (Aug. 1994) (citing Harry F. Manbeck, Jr., The Federal Circuit—First Ten Years of Patentability Decisions, 14 GEO. MASON. L. REV. 499, 504 (1992)). "Not many other fields have experienced the happy annealing of ideological splits that patent law, at least temporarily, has." POSNER, supra note 2, at 253. "One generally unforeseen consequence of establishing a specialized patent court is that the conceptual strands of patent law have been integrated into a coherent whole." Dreyfuss, supra note 40, at 21.

^{94.} Federal Circuit Report, supra note 58, at 15.

^{95.} Thomas H. Case & Scott R. Miller, An Appraisal of the Court of Appeals for the Federal Circuit, 57 S. CAL. L. REV. 301, 318 (1984).

^{96. &}quot;[C]leavage in views on patent law had generated persistent intercircuit disagreements over the scope of patent protection" POSNER, supra note 2, at 253. "By making one appellate court responsible for the development of the law in particular areas, Congress, in a single stroke, eliminated intercircuit conflicts and achieved uniformity." Id. Yet, the court has not eliminated the problem of the intracircuit conflict. See supra at p. 107.

and in the caseload of the federal judiciary,⁹⁸ while still spurring innovation.⁹⁹ Another great advantage was eliminating forum shopping, especially in patent cases.¹⁰⁰ This development was badly needed as evidenced by Judge Henry J. Friendly's famous description of the "mad and undignified race" for forum shopping that was typical in patent cases.¹⁰¹

The Federal Circuit is itself an innovation. Its establishment reflects the reality of global economic and technological trends, as well as the United State's fiscal evolution into a high-tech economy. Certain bodies of law, including patents, now occupy a highlighted place in the economy that the legal community must specially recognize. The positive value of such a court structure is evidenced in its effect on industrial innovation, the nation's technological strength and international [trade and] competitiveness. The positive value of such a court structure and competitiveness.

^{97. &}quot;[W]ithout knowing where a patent would be litigated, it became impossible to adequately counsel technology developers or users. In such a legal environment, the promise of a patent could hardly be considered sufficient incentive to invest in research and development." Dreyfuss, supra note 40, at 7. See also Considering the Appropriate Allocation of Judgeships in the U.S. Courts of Appeal for the Second and Eighth Circuits and the First, Third, and Federal Circuits Before the Subcomm. on Administrative Oversight and the Courts of the Senate Comm. on the Judiciary, 105th Cong., 1st Sess. 132 (1997) (statement of then-Chief Judge of the Federal Circuit Glenn L. Archer, Jr., discussing the financial efficiency of the Federal Circuit) [hereinafter Archer Testimony].

^{98. &}quot;[T]he number of appeals resulting from attempts to obtain different rulings on disputed legal points can be expected to decrease." Federal Circuit Report, supra note 58, at 15.

^{99. &}quot;If it is to be a court that oversees technological progress, then it must interpret its jurisdictional grant accordingly and drop its reluctance to construe federal law independently." Dreyfuss, *supra* note 40, at 64.

^{100.} In contrast, one author notes, "[florum shopping could, however, be cured procedurally with a clear definition of what it means for a patent claim to be frivolous (backed up, perhaps, with stringent penalties) and with a strict doctrine of res judicata." *Id.*

^{101.} Pauline Newman, The Federal Circuit—A Reminiscence, 14 GEO. MASON U. L. REV. 513, 516 (1992) [hereinafter The Federal Circuit—A Reminiscence]. Commentators have written about the wide divergence of law "among regions of the country." Dreyfuss, supra note 40, at 6-7. "It is no wonder that forum shopping was rampant, and . . . a request to transfer a patent infringement [between circuits was] bitterly fought . . . and, ultimately in the Supreme Court." Id. at 7.

^{102.} The Federal Circuit: Judicial Stability or Judicial Activism, supra note 84, at 686.

^{103. &}quot;[C]hannelling patent cases into a single appellate forum would create a stable, uniform law and would eliminate forum shopping. Greater certainty and predictability would foster technological growth and industrial innovation and would facilitate business planning." Dreyfuss, *supra* note 40, at 7.

^{104.} The Federal Circuit: Judicial Stability or Judicial Activism, supra note 84, at 685.

A. Criticism of the Federal Circuit

There is a dazzling array of criticism aimed at the Federal Circuit from many quarters in the legal community. From the court's beginning and continuing today, these performance criticisms are rooted in its consolidated court of appeals structure. These broad claims include the propositions that the Federal Circuit has been captured by the "pro-patent" forces; contributes to an over-specialization of judges; yields poorly written opinions; encourages judicial activism; and leads to tunnel vision; extremism, a loss of objectivity and diversity among circuits; and special interest group control of judges. A national consolidated court system is criticized for potentially losing the congeniality necessary for a well-functioning appellate court. Any nationwide court based in the U.S. Capitol is also criticized for representing a trend in the concentration of Washington power.

105. Case & Miller, supra note 95, at 312. "[T]his isolation, coupled with the repetitive nature of the workload, is unlikely to attract the most talented jurists." RICHARD A. POSNER, THE FEDERAL COURTS 150 (1986). There is, however, no objective evidence supporting the argument that the quality or competence of a consolidated court are inferior than those of any of regional court of appeal. See POSNER, supra note 2, at 250.

106. "The shaping of the patent law is to an exceptional degree in the hands of the judiciary, for in patent cases a relatively simple statutory law is applied to an extraordinary complexity of factual circumstances." The Federal Circuit: Judicial Stability or Judicial Activism, supra note 84, at 685.

107. The repetitity of the same types of cases gives rise to the criticism of the judges developing a narrow perspective. Judge Henry J. Friendly disagreed with the tunnel vision criticism by noting, "the generalist judge is more susceptible to distorted perception because he rarely hears a patent case." Hearings on S. 677 and S. 678 Before the Subcomm. on Improvements in Judicial Machinery of the Comm. on the Judiciary, 96th Cong., 1st Sess. 193-96 (1979). See Case & Miller, supra note 95, at 308. Judge Friendly was addressing this issue in the context of tax cases. Id.

108. Case & Miller, supra note 95, at 313. They note that court supporters argue that while diversity may have a role concerning the common law, it has no place in the interpretation of a federal statute. *Id*.

109. Judge Posner argues that the one-dimensional nature of the docket will make such judges vulnerable to lobbyists, congressional committees, private watchdog groups, and hence their positions will be susceptible to ideological appointments. POSNER, supra note 2, at 252. The neutrality of the appointment process is defended on the grounds that specialty groups and practitioners are sufficiently on both sides of the issue. Case & Miller, supra note 95, at 310-11.

110. Statement of Jon Newman, United States Circuit Judge, U.S. Court of Appeals for the Second Circuit, before the Commission on Structural Alternatives for the Federal Courts of Appeals (visited Apr. 5, 1999) http://app.comm.uscourts.gov/hearings/newyork/0424NEWM.htm (reporting the comments of the Honorable Jon Newman, of the U.S. Court of Appeals for the Second Circuit). Judge Jon Newman is considered by some as one the great copyright jurists of our time.

111. See Additional Views of Senator Max Baucus on S. 1700 - The Federal Courts Improvement Act of 1981, in Federal Circuit Report, supra note 58, at

B. Federal Circuit Results

The successful results of the Federal Circuit's experiment have confirmed many of its supporters' hopes. In 1984, two commentators concluded that the Federal Circuit "will foster greater uniformity in patent law—at an acceptable cost if generalist judges occupy the bench—and a concomitant decrease in forum shopping and litigation costs." The court's success also disproved naysayers whose fears were appreciably wrong on some counts. 113

It is worth addressing the "pro-patent" criticism of the court in some detail, since this Article argues that the new forms of intellectual property are some of the best candidates for inclusion in the expanded exclusive appellate jurisdiction of a consolidated national court. These candidates are those that primarily convey morally-neutral, economic rights that concern investment, international trade and competitiveness, and innovation. Thus, whether a forum is "pro-patent," or disposed toward any form of property or legal position, questions the competence of the court in intellectual property areas, and it is a charge that deserves very close scrutiny.

No one doubts that the Federal Circuit is responsible for the renaissance in patent law. 114 Yet, there is a clear distinction between fairly adjudicating cases in an area of the law and "rubber stamping" all plaintiffs' patent cases. 115 The Federal Circuit has presided over several important legal developments. One study concluded that the court presided over a significant evolution in a number of patent law areas including validity, obviousness, 116 the

^{40 (}stating that "[m] any of us in Congress have been greatly disturbed by the growing trend toward centralizing decisionmaking in Washington, D.C."). Of course, a consolidated appellate court may be located outside Washington. Judge Posner notes that national tribunals are sometimes located elsewhere, for example, the Railroad Retirement Board is headquartered in Illinois. POSNER, supra note 2, at 258 n.24. Judge Posner further notes that video and computer technology may change the need for an appellate court to have any particular physical site. *Id.* The Federal Circuit was created with Congress' expectation that it would "ride the circuit" and hear cases around the country. *Id.*

^{112.} Case & Miller, supra note 95, at 301.

^{113.} See id. (stating that the Federal Circuit "will fail, however, to spur innovation among stagnant American industries").

^{114.} Robert L. Risberg, Comment, Five Years Without Infringement Litigation Under the Semiconductor Chip Protection Act: Unmasking the Spectre of Chip Piracy In an Era of Diverse and Incompatible Process Technologies, 1990 WIS. L. REV. 241, 245 (1990).

^{115. &}quot;Similarly, the uninformed, unsupported, and unsupportable assertion that the Federal Circuit might somehow become biased in favor of patents has apparently by now foundered on the facts." Howard T. Markey, *The Federal Circuit and Congressional Intent*, 2 FED. CIRCUIT B.J. 303, 305 (1992).

^{116. 35} U.S.C. § 103 (1998).

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on-sale bar, 117 infringement, the doctrine of equivalents, injunctions, damages, affirmative defenses, and the attorney-client privilege. 118

The Federal Circuit also presided over a quantitative change in its jurisdiction. Proponents of establishing the court predicted a change in the caseload. However, its caseload has exceeded expectations. Despite the expected results, the amount of patent litigation has increased. The increased number of patent cases is attributed to a greater certainty arising out of the uniformity possible through a national consolidated court of appeals. This certainty and enhanced coherency in patent law rejuvenated industry and increased patenting activity at a rate outpacing the reductions in efficiency. 121

Philosophers can ponder whether these results indicate if there ever may be too much doctrinal stability or certainty in a legal system or appellate court. Likewise, one can also question whether the development of a stable body of law could result in a stale body of law. Congress usually has a legislative answer.

The renaissance in patent rights may be measured by the increase in patent litigation by those seeking effective remedies.¹²³ It is notable that there is an increase in patent litigation since it is

^{117.} Id. § 102(b).

^{118.} Gerald Sobel, The Court of Appeals for the Federal Circuit: A Fifth Anniversary Look at its Impact on Patent Law and Litigation, 37 Am. U. L. REV. 1087, 1092 (1988). Sobel concludes, "the Federal Circuit has profoundly affected patent jurisprudence. The strengthened patent comes at a time when intellectual property is of special value in this country relative to other forms of industrial wealth." Id. at 1139.

^{119.} The original forecast for the caseload of the Federal Circuit was 900 cases per year; in 1991 the court had over 1600 filings. The Federal Circuit—A Reminiscence, supra note 101, at 522-23. The court's caseload has risen as high as 2,000 in prior years. Id. The court's caseload in 1997 totaled 1462 cases. Archer Testimony, supra note 97, at 109. The Federal Circuit's original caseload estimate was smaller than for the other regional courts of appeals, but this was considered appropriate due to the greater complexity of the cases, especially the patent jurisdiction. Federal Circuit Report, supra note 58, at 17. This estimate was based on the caseload of the predecessor courts and the new patent and federal contract jurisdiction. Id. This increase reminds one of the line from the film Field of Dreams, "If you build it, they will come."

^{120.} In 1980, the number of nationwide patent appeals filed totaled 119. In 1979, 192 patent appeals were filed, and 163 patent appeals were filed in 1978. Case & Miller, *supra* note 95, at 324. Patent appeals represent only one percent of the total federal appellate docket. *Id*.

^{121.} POSNER, supra note 2, at 253.

^{122. &}quot;Now that the law has become easier to discern, the CAFC may have saddled itself with new business as parties opt for judicial resolution of their cases." Dreyfuss, *supra* note 40, at 24.

^{123. &}quot;Many patent attorneys and litigators attribute an observed 50% increase in patent litigation during the 1980s to the CAFC's rulings." Merz & Pace, supra note 93, at 580.

among the most expensive types of litigation.¹²⁴ Economics explain this expense by pointing to justified rational rights-holders seeking their expected relief.

The best retort to all of the Federal Circuit's critics lies in reviewing its success through its decisions, and their effect on the law. This success is also confirmed by the Federal Circuit's litigants, and Congress' support in terms of funding and past attempts to expand the court's jurisdiction.¹²⁵

The Federal Circuit's diverse jurisdiction supports the conclusion that it is not a specialized court. Today, patent appeals constitute a minority of the court's docket in terms of both filings and its workload. Patent filings comprise less than one-third of its appellate docket, and a minority of the court's workload. The court's workload.

The Federal Circuit's diverse jurisdiction is provided by a statute that ensures it is a consolidated, rather than a specialty court.128 Congress decided that the Federal Circuit should have the exclusive jurisdiction to hear all appeals from the district courts arising in whole or in part under 28 U.S.C. § 1338(a), with the exception of federal copyright or trademark cases. 129 Section 1338 provides "original and exclusive" jurisdiction to the U.S. District Courts for patent cases. 130 The jurisdiction of the Federal Circuit includes appeals of Internal Revenue Service cases from the district courts, appeals from the U.S. Court of Federal Claims. appeals of the decisions of the Patent and Trademark Office (PTO) regarding patent applications and interferences, trademark registration and related proceedings, appeals of the U.S. Court of International Trade, final determinations of the U.S. International Trade Commission, and federal government contracts either by the referral of the head of any executive department or agency, or the

^{124.} Case & Miller, supra note 95, at 321.

^{125.} See Archer Testimony, supra note 97, at 105 (detailing recent additions to the court's jurisdiction and congressional review of the court).

^{126.} Plager, supra note 78, at 866. Plager notes:

⁽¹⁾ there are important conceptual and perhaps operational differences between a 'specialized' court and a non-regional subject matter court; (2) untested assumptions about such courts and their judges-their incentives, shared beliefs, origins, psychopathology, what have you-are not particularly useful; (3) little is known, empirically and verifiably, about whether such courts behave differently than geographically-based appellate courts, and if so, in what ways, and with what consequences.

Id. 127. Archer Testimony, supra note 97, at 123-24.

^{128. 28} U.S.C. § 1295 (1991). This statute confers jurisdiction to the Federal Circuit but does not create a cause of action. *Id.* The Federal Circuit's current jurisdiction consists entirely of civil, but no criminal, law areas.

^{129. 28} U.S.C. § 1338(a) (1998).

^{130.} Id.

relevant board of contract appeals.¹³¹

An inviting and equally important policy question is whether the Federal Circuit's success may be emulated by expanding its jurisdiction in order to improve other bodies of federal law.¹³² Critics of the Federal Circuit have long predicted that the court's jurisdiction will "inevitably expand at the expense of the jurisdiction of the regional circuit courts of appeal."¹³³ (This allegation invokes the specter of judicial gerrymandering!) Yet, the creation of new types of federal intellectual property provides a unique opportunity to defy this zero-sum game logic. Congress may expand the jurisdiction of the Federal Circuit without transferring any existing jurisdiction from the regional courts of appeals. This Article now turns to study the challenges presented by the exciting opportunities upcoming through new legislation.

III. NEW INTELLECTUAL PROPERTY LEGISLATIVE PROPOSALS

Two new types of federal intellectual property were the subject of recent Congressional efforts. ¹³⁴ Both legislative measures convey economic rights. The first was the Vessel Hull Design Protection Act (Vessel Act), ¹³⁵ legislation that would provide protection against the copying of a ship hull design. The Vessel Act addresses the Supreme Court case *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.* ¹³⁶ The second was the Collections of Information Antipiracy Act, ¹³⁷ legislation to provide protection against the misappropriation of databases. The concern over database protection arises from the Supreme Court case *Feist Publications, Inc. v. Rural Telephone Service Co.* ¹³⁸

One noticeable feature of these bills is that they establish federal district court trials and provide appeal to the appropriate

^{131.} *Id.* A law professor of mine suggested that its jurisdiction earned it the title, "The Boring Court." Some have suggested that the court received the jurisdiction other judges loathed.

^{132.} Recently this very question was presented. See supra note 8. But see Risberg, supra note 114, at 276 (advising Congress to remain wary of expanding the scope of jurisdiction).

^{133.} Case & Miller, supra note 95, at 301.

^{134.} This Article will not attempt to discuss all of the many substantive provisions involving these proposals except to say that any new economic rights are important and deserve to be drafted so as to be strong rights and have effective corresponding remedies.

^{135.} H.R. 2696, 105th Cong., 1 Sess., 144 CONG. REC. H1243 (1998); Digital Millennium Copyright Act, Pub. L. No. 105-304, 1998 U.S.C.C.A.N. (112 Stat.) 2860.

^{136. 489} U.S. 141, 153 (1989) (holding that a Florida state ship hull anticopying law was preempted by the U.S. Constitution's Supremacy Clause). 137. See supra note 23.

^{138. 499} U.S. 340, 363 (1991) (holding that a residential phone directory or "white pages" did not contain the necessary level of creativity to qualify for copyright protection).

regional court of appeal under 28 U.S.C. § 1338. This will increase uniformity by fixing the jurisdiction within the federal system. Likewise, vessel registration would continue to serve the stated important goal of national uniformity, since like all copyright registration, it is federally based and requires the appellate review of registration cases by one appellate court, the D.C. Circuit. The bills' common serious shortcoming is that they do not convey exclusive appellate review to the Federal Circuit.

The new legislation guarantees that many new interpretive concerns will arise before the courts. Commentators predict that the rights these bills provide may suffer due to the vagueness of certain draft definitions. For example, the meaning of several provisions in the database bill, such as "significant investment," are still in doubt. The concerns acknowledge the valuable point that regardless of Congress' best attempts to clarify legislative language, in our legal system, interpretative and intercircuit conflicts are inevitable. These judicial interpretive conflicts may be so severe that the rights-holders may never find the law effective, at least as originally intended. Commentators suggest that this was the critical defect that undermined previous intellectual property legislation. If this criticism is meritorious, then exclusive appeals before a unified court also have the benefit of quickly bringing conflict issues to a head for Congress to address.

An excellent case study for understanding the role of the federal courts and the nexus between the substance and process in our legal system is the Semiconductor Chip Protection Act (Act or Semiconductor Act). It underscores the value of nationwide uniformity for new forms of intellectual property protection. The purpose of the Act was to provide protection for the integrated chip and semiconductor industry. This required establishing a sui generis form of intellectual property that could address certain perceived deficiencies in the United States regime, particularly in copyright law.

The semiconductor industry sought this new form of protection for two reasons. First, there was severe worldwide chip piracy. Second, the traditional routes of trade secret, copyright, and patent law each failed to provide adequate protection for semiconductor technology.

Trade secret protection proved inadequate for two major reasons. First, the trade secret laws are not uniform nationwide, but instead vary from state to state. Second, trade secret law fails

^{139.} H.R. 2696, 105th Cong., 1 Sess., 144 CONG. REC. H1243 (1998).

^{140. 17} U.S.C. §§ 901-914 (1991). See Robert W. Kastenmeier & Michael J. Remington, The Semiconductor Chip Protection Act of 1984: Swamp or Firm Ground, 70 MINN. L. REV. 417, 466-67 (1985) (discussing the advantages of the Semiconductor Act which include the various benefits and protections regarding copyright law).

to protect against reverse engineering and honest discovery by a second designer.¹⁴¹

Copyright law provides inadequate protection for semiconductor technology as well. Copyright law constitutionally requires a certain level of originality lacking in many utilitarian designs, and in any event does not protect useful articles. Semiconductor circuit mask works thus failed to meet the necessary standards to merit copyright protection. Failing this standard, the U.S. Copyright Office refused to register the circuit masks. Registration is a key aspect of a work's copyright protection since it is necessary for effective legal remedies such as statutory damages and attorney's fees.

Patent law also failed to provide adequate protection for the semiconductor industry at the time. The nature of the chip technology did not always satisfy the requirements for patent protection. While the Supreme Court upheld the broad scope of patent protection so that one may patent "anything under the sun," it is still necessary to meet the statutory criteria. An

^{141.} See Smith v. Snap-on Tools, Corp., 833 F.2d 578, 579 (5th Cir. 1987) (upholding common law protection for trade secrets). See also Risberg, supra note 114, at 253-54 (discussing how trade secret law does not protect against a variety of disclosure attempts).

^{142.} Risberg, supra note 114, at 252-54. Further, U.S. copyright law prohibits registration of "useful articles" as pictorial, graphic or sculptural works. Id. The proposal to expand the scope of the subject matter of copyright to include utilitarian articles was considered and then rejected by Congress as the Act was being drafted. Steven P. Kasch, The Semiconductor Chip Protection Act: Past, Present, and Future, 7 HIGH TECH. L. J. 71, 84 (1992) (citing H.R. 1028 Hearings: Copyright Protection for Semiconductor Chips: Hearings on H.R. 1028 Before the Subcomm. on Courts, Civil Liberties, and the Administration of Justice of the House Comm. on the Judiciary, 98th Cong., 1st Sess. 88 (1983)). Emory Law Professor L. Ray Patterson recognized "that copyright had historically inured to the benefit of publishers. This conceptual weakness between form and function . . . would be further eroded if explicitly utilitarian articles, such as mask works, were to become copyrightable subject matter." Id.

^{143.} See H.R. Rep. No. 98-781, 98th Cong., 2d Sess. (1984), reprinted in 1984 U.S.C.C.A.N. 5708.

^{144.} John G. Rauch, The Realities of Our Times: The Semiconductor Chip Protection Act of 1984 and the Evolution of the Semiconductor Industry, 75 J. PAT. & TRADEMARK OFF. SOCY 93, 98 (1993).

^{145. 17} U.S.C. § 504(c) (1998). See Warner Bros., Inc. v. Dae Rim Trading, Inc., 877 F.2d 1120, 1126 (2d Cir. 1989) (stating that statutory damages may be provided, including attorney's fees, even if there is no proof of actual damages).

^{146.} At the Senate hearings, Professor Arthur Miller testified, "[t]he [low] level of creativity involved in [chip] layout designs does not usually rise to the level required by the patent laws." Risberg, supra note 114, at 251.

^{147.} Diamond v. Chakrabarty, 447 U.S. 303, 318 (1980) (quotations supplied by author).

^{148.} The statutory criteria for a patent include utility, novelty, and non-obviousness. 35 U.S.C. §§ 101-03 (1998), respectively.

applicant must also pursue the expense and burden of the PTO application process. The bureaucracy of the PTO application process may be so severe and slow that it acts as a disincentive to seeking patent protection. For the purposes of this Article, the most interesting complaint of the patent system at the time of the Act's consideration was the uncertainty in the law arising from the federal regional courts of appeals.

The federal courts, before Congress established the Federal Circuit, were blamed for undermining patent protection in a variety of ways. ¹⁵⁰ It was suggested that "some courts were openly hostile to patent 'monopolies." As discussed earlier in this Article, a major problem with patents arose from the lack of uniformity in patent law due to the widespread disparate treatment among the various regional federal courts of appeals. ¹⁵²

Today, the semiconductor industry is one of the nation's most successful sectors, and computers proliferate our lives, but the Semiconductor Act is not considered a major source of protection for the industry. Evidence for this result may be inferred from two places. First, other critics cite the few annual registrations of mask works¹⁵³ at the U.S. Copyright Office as evidence of the industry's lack of reliance on the Act.¹⁵⁴ Second, the absence of any but a handful of federal court cases on this subject is considered as proof of the Act's shortcomings.¹⁵⁵

Washington attorney Michael J. Remington, the former House Judiciary Subcommittee Chief Intellectual Property Counsel who worked on the Act's enactment, argues two points in its defense. First, successful statutes do not breed litigation. Second, the Act has made the United States a world leader, since

^{149.} Cf. Risberg, supra note 114, at 265. The "industry's true aim may have been to acquire a new form of protection that involved neither a time-consuming search through prior art nor design disclosure . . . One common but misguided complaint about patent protection is that it takes too long to acquire." Id.

^{150. &}quot;Today's improved climate for patent protection is directly attributable to the creation of the Federal Circuit." *Id.* at 268.

^{151.} Id. at 263-64.

^{152.} Id. at 263.

^{153.} A mask work is defined at 17 U.S.C. § 901(a)(2) (1998). See supra note 10 and accompanying text.

^{154.} The U.S. Copyright Office, Visual Arts Section division reports that it registers less than 1000 mask works each year from firms worldwide. Telephone Interview with U.S. Copyright Office, Visual Arts Section. The world's largest chip company, Intel, registered no mask works in 1998. *Id.*

^{155.} Two such cases include Brooktree Corp. v. Advanced Micro Devices, Inc., 977 F.2d 1555 (Fed. Cir. 1992) and Brooktree Corp. v. Advanced Micro Devices, Inc., 705 F. Supp. 491 (S.D. Cal. 1988).

^{156.} Telephone Interview with Attorney Michael J. Remington, former House Judiciary Subcommittee Chief Intellectual Property Counsel (Nov. 3, 1998).

^{157.} Id.

legal protection for mask works and chip technology were incorporated into the GATT-TRIPS agreement that called for such protection on a global level. Mr. Remington does suggest that history demonstrates that legislation and technology do not march hand in hand. He notes that past intellectual property statutes tied to a specific technology have proved to be not very effective. He cites the Digital Audio Recording Act as one example in the copyright area. He

Commentators attribute a variety of factors to explain why the Semiconductor Act did not prove as successful as originally envisioned. Business experts conclude that the semiconductor industry today exists in a very different environment than during the 1970s and 1980s. Today, the technology in the semiconductor chip industry has changed. The product cycles for chips are now shorter. The industry now produces more semi-customized and customized chip designs; the industry is more efficient partially due to innovations such as computer-aided chip design tools. These developments in efficiency have in turn reduced the incentives for copying and piracy.

The semiconductor industry changed the way it does business as well. Industry watchers cite the development of global licensing agreements among chip firms as another reason that mask protection is less necessary.¹⁶⁶ From a trade perspective, there have been other important, complementary changes in U.S. law. The semiconductor industry gained valuable protection from unfair competition by foreign firms at the U.S. International Trade through **Omnibus** Commission, and the Trade Competitiveness Act of 1988. Finally, the perception of security arising from a sui generis form of protection may also play a role in firm reorganization and attracting capital.

The Semiconductor Act is criticized partially because its standards and tests are considered vague in their meaning. Another criticism involves the reverse engineering defense. It is argued that Congress failed to develop "usable legal criteria for

^{158.} *Id*.

^{159.} Id.

^{160.} Id.

^{161.} Telephone Interview with Attorney Michael J. Remington, *supra* note 156. *See also* Audio Home Recording Act of 1992, Act of October 28, 1992, Pub. L. No. 102-563, 196 Stat. 1992.

^{162.} Risberg, *supra* note 114, at 257. The author argues that the decline in chip technology is primarily attributable to process technology. *Id.*

^{163.} Id. at 274.

^{164.} Id. at 273.

^{165.} Id.

^{166.} Id. at 269.

^{167.} Risberg, supra note 114, at 268; Pub. L. No. 100-418, 102 Stat. 1107.

^{168.} Kasch, supra note 142, at 99, 104-05.

distinguishing fair from unfair copying." In other words, the reverse engineering defense was too broad.

There is no single reason why the Semiconductor Chip Protection Act did not serve to provide the intellectual property protection for technology as envisioned by its drafters. Yet, its review provides an informative case study. This case study can help Congress in its task of creating new, and perfecting existing intellectual property rights. These rights pose consequences for investment, international trade and competitiveness, and innovation. New and old devices will face challenges from evolving technologies, business relationships, and legal standards. The Semiconductor Act may have been outmoded by its once less formidable patent sibling. If this is true, then it occurred because patents were strengthened by the uniformity arising from the Federal Circuit's creation and its exclusive appellate review.

Commentators cite the industry's efforts to protect chip technology through patents strengthened by the "renaissance" in patent law. This was brought on by the creation of the Federal Circuit. The Federal Circuit's annealing of patent law strengthened the discipline by establishing uniformity and nationwide standards.

One can safely conclude that the Chip Act would be stronger if its standards were uniform or if it was not overtaken by patent law that had its standards unified through a consolidated nationwide appellate court. The issue of uniformity and standards seems to be one factor within Congress' control that it should carefully note. This point highlights a valuable lesson. The Semiconductor Act might be more useful today if it provided for appellate review through the Federal Circuit's unified national jurisdiction. One commentator concluded, "[t]he failure to allocate jurisdiction over [the Act's] litigation to a single federal appellate court, such as provided for patent cases, furthers the perception of unpredictability." This haunting theory is a warning that merits serious attention.

As this Article discussed earlier, the new economy will foster economic resource allocation questions and a competition for investment among a wide array of industrial sectors. The review of the case histories of specific intellectual property problems provides useful study. One issue worth further study is the value

^{169.} Id. at 99.

^{170.} See Rauch, supra note 144, at 102 n.48 (stating that the Federal Circuit revitalized patent law). See also Risberg, supra note 114, at 245 (stating that "[p]atent law, which has enjoyed a virtual renaissance since creation of the Court of Appeals for the Federal Circuit, has become more dependable, is better understood, and is often suitable for the type of chips most likely to draw imitators.").

^{171.} Risberg, supra note 114, at 263.

of nationwide legal uniformity and the importance of certain national legal standards that can only arise through a consolidated appellate court.

IV. Advice Regarding Expanding the Court's Jurisdiction

A national unified court of patent appeals took nearly 200 years to establish, and closed chapters of legal history marked by uncertainty and confusion. The Federal Circuit proves itself a successful experiment that invites emulation and expansion. The benefits of a nationwide appellate court with a consolidated structure include annealing the law, and with this the court renders decisions that are better for everyone. Individuals and firms then may respond accordingly, whether that entails industrial activity, petitioning Congress, or forbearance.

It is not unprecedented for lawmakers to make policy by borrowing from other fields. Periodically, Congress, rights-holders and the bar should review the progress and the state of the new and old types of intellectual property. They too should consider expanding the jurisdiction of the Federal Circuit. This task is not radical, but poses many difficulties, including the political, economic, and juridical.

The first lesson of the Federal Circuit is that an appellate court of nationwide jurisdiction is desirable. One could easily argue that all civil litigation could benefit from the uniform national treatment conferred through a specialized court or a consolidated court of appeals. In fact, this would be an impractical modification of federal court jurisdiction today. This lesson is greater than that the solution to the problem of intercircuit conflicts is merely consolidating the system into one large circuit. An intercircuit tribunal could be established to remedy the problems of intercircuit conflicts. The other benefits of a nationwide circuit include the expertise that the court's judges develop, and the special recognition of certain nationally important fields.

The second lesson of the Federal Circuit, however, is one of economy, or that only certain fields merit such treatment today.

^{172.} See generally COMMISSION ON STRUCTURAL ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS, FINAL REPORT, supra note 3, at 72-74 (indicating that the Federal Circuit could take on "additional categories of cases"). This recent study makes several recommendations concerning the reorganization of the federal judiciary. The report suggests to Congress the potential of consolidating tax and social security appeals and conferring these into the Federal Circuit, but makes no specific recommendations regarding the jurisdiction of the Federal Circuit. Id. The Commission members included the Honorable Byron R. White (chair), N. Lee Cooper, Gilbert Merritt, Pamela Ann Rymer, and William D. Browning. Id. at app. B. Its Executive Director was Daniel J. Meador. Id.

These are fields of law that deserve to be singled out for that special national treatment because of their significance of uniformity on domestic innovation, international trade and competitiveness, investment, and the value of certainty for litigants. These candidate fields entail primarily morally-neutral economic rights. Intellectual property and related industrial property laws meet those criteria. In light of these lessons, Congress' test includes identifying these worthy candidate fields for inclusion and then acting accordingly.

This Article does not argue for the wholesale transference of all copyright, trademark, and semiconductor mask work law to the Federal Circuit or another consolidated appeals forum. While these fields may benefit from such treatment, they also have a lengthy history and tradition, as did patent law; yet they present practical and political considerations that are not easily overcome at this time. In fact, the original legislation creating the Federal Circuit would have also included all federal trademark law issues within its appellate jurisdiction. Ultimately Congress did not adopt this due to objections from the trademark bar. The case has not yet been made to overcome these political and academic obstacles.

As a practical matter, it may not be of great significance that the law has not consolidated some appeals into one court of appeals. For example, the numerous and important copyright industries, such as film, music and software firms, are located in the Ninth Circuit. The New York-based publishing industries are located in the Second Circuit. Some view the Second and the Ninth Circuits as the *de facto* consolidated court of copyright

^{173.} Antitrust is another field that seems well-suited for the exclusive jurisdiction of the Federal Circuit. See generally POSNER, supra note 2. While this Article does not take a position regarding this, it is the case that many antitrust issues arise before the court due to its pendent jurisdiction especially involving patent cases.

^{174.} Justice Byron White and his Commission suggested that exclusive jurisdiction over copyright appeals also be conferred to the Federal Circuit. COMMISSION ON STRUCTURAL ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS, TENTATIVE DRAFT REPORT 65 (Oct. 1998). It noted that since the creation of the Federal Circuit in 1981, computers, software patents, and other "technological developments have wrought far-reaching changes in both patents and copyrights...[and] brought them together in ways that were unknown seventeen years ago.... For this reason, some have suggested that it would be sensible to have patent and copyright claims ultimately adjudicated in the same court." *Id.* This suggestion was not adopted in the December 1998 Final Report. COMMISSION ON STRUCTURAL ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS, FINAL REPORT, *supra* note 3. The Final Report did not offer an explanation for eliminating this recommendation.

^{175.} H.R. 3806, 96th Cong.

^{176.} Credit for this criticism and observation belongs to attorney Michael J. Remington.

appeals while not de jure the case.

Accordingly, there may be other avenues of court reform that may anneal and improve the law. One radical proposal is to hybridize the regional courts of appeals by exclusively designating a specific field to its jurisdiction. This is a "regional-plus court of For example, Congress could exclusively appeal" concept. designate all copyright appeals to the Ninth Circuit. Since the West database company is based in Minnesota, database appeals could be consolidated into the Seventh Circuit. Trademark law could go to the Second Circuit. Finally, in an ironic move, Congress could transfer vessel hull or admiralty law to a landlocked circuit such as the Eighth Circuit Court of Appeals. It is evident that Congress could achieve the many potential benefits of the Federal Circuit (e.g., uniformity and annealing of the law) through alternative structural reforms.¹⁷⁷

This Article contends that Congress is better able to make these policy choices through study and experimentation. New forms of intellectual property are excellent test cases to examine the appellate jurisdiction questions. These are valuable potential test cases, because they are free of some of the baggage described. In truth, the Federal Circuit eventually will hear the rare appeal of these cases originating from the Court of Federal Claims and its pendent jurisdiction.¹⁷⁸ There are many benefits to be gained by conferring to the Federal Circuit jurisdiction for new forms of intellectual property on an exclusive basis. These new rights will get off the launch pad with a brighter future.

The policy decisions regarding the appellate courts' jurisdiction and the creation of new intellectual property rights belong to Congress. While raising many tort theories, database misappropriation and vessel design infringement cases are examples of excellent test candidates for inclusion. The results of expanding the Federal Circuit's jurisdiction to include new areas of law are many, and they promise increased uniformity in these fields, the increased scrutiny of Federal Circuit nominees, easing burdens on the rest of the federal judiciary, and a more well-rounded and diverse consolidated court.

Recent congressional proposals to expand the Federal Circuit's jurisdiction treat the court with ambivalence. The legislative proposals primarily seek to transfer jurisdiction to the

^{177.} It is noteworthy that as a non-regional court of appeals that the Federal Circuit has the flexibility to "ride the circuit." COMMISSION ON STRUCTURAL ALTERNATIVES FOR THE FEDERAL COURTS OF APPEALS, FINAL REPORT, supra note 3, at 72. Thus it travels and hears cases across the nation.

^{178.} H.R. 2652, 105th Cong., 1st Sess. § 3 (1997). Ironically, one of the only reported Semiconductor Mask work cases was reviewed by the Federal Circuit. Brooktree Corp. v. Advanced Micro Devices, Inc., 977 F.2d 1555 (Fed. Cir. 1992).

Federal Circuit from another U.S. court of appeals.¹⁷⁹ These recent proposals include the transference of copyright arbitration appeals currently heard by the U.S. Court of Appeals for the D.C. Circuit,¹⁸⁰ and conferring new jurisdiction to hear appeals from a proposed U.S. Immigration Court.¹⁸¹

These proposals do not seek the special annealing benefits of a consolidated court, such as curing the problems among certain classes of cases that normally are heard across the regional courts of appeals. These proposed jurisdictional changes are equivalent to mere "substitutions." The changes do not address the questions of a concentration of power or decision-making in Washington. These substitutions between the two appellate courts cannot increase or decrease uniformity within their fields. This action does seem to imply that some members in Congress believe that the Federal Circuit has greater expertise or competence in some matters than its sister appellate court, the D.C. Circuit.

Congress is unlikely to create a new consolidated appellate court soon. If Congress looks to expand the Federal Circuit's jurisdiction, it is well-advised to take into account the following recommendations when reviewing any additional jurisdiction for the court:

- 1. Congress should first be skeptical of any recommended subject-matter for the expanded jurisdiction. While uniformity is important, only certain fields present the special needs or qualifications that merit or can justify national treatment within our current system. Academic literature chronicles that industries exaggerate their alleged problems. The groups that are best represented before Congress may not be representative of any industry as a whole or the public interest at large;
- 2. Any modifications in the court's jurisdiction should be incremental and slow. 183 The United States represents one of

^{179.} There are additionally proposals to expand the core jurisdiction of the court, such as its taking cases. S. 1256, 105th Cong., 1st Sess. (1997).

^{180.} The Copyright Compulsory License Improvement Act, S. 1720, 105th Cong. § 7 (1998); The Copyright Compulsory License Improvement Act, H.R. 3210, 105th Cong. § 7 (1998). Current law provides that the appeals are reviewed by the U.S. Court of Appeals for the D.C. Circuit. 17 U.S.C. § 802(g) (1998); Pub. L. 94-553, 90 Stat. 2598 (1976).

^{181.} H.R. 4107, 105th Cong., 2d Sess. (1998). Currently such Immigration and Naturalization Service cases are appealed to the D.C. Circuit.

^{182.} See Risberg, supra note 114, at 276 (indicating that "[t]he semiconductor industry exaggerated the chip piracy problem to a technologically naïve Congress").

^{183.} This common-sense theme can be found in previous court reform literature. See REPORT OF THE FEDERAL COURTS STUDY COMMITTEE, supra note 77, at 13.

the largest intellectual property marketplaces and home to creators in the world. Any changes to our system, especially those of a rapid or unexpected nature, can have global financial and research ramifications that need to be carefully assessed:

- 3. Congress should be courageous. It is often the case that the intellectual property issues that Congress faces are politically difficult, technically complex and involve financially important and well-represented sectors of the economy;¹⁸⁴ and finally but certainly not least,
- 4. Congress must be extremely careful not to overburden the Federal Circuit. In a relatively short time period, the Court has become a very successful institution that has achieved great success in perfecting certain areas of national law, particularly in dealing with the extremely factual complexities of patent law. It is all too easy to foil the workings of the Federal Circuit by overburdening it with excessive or improperly characterized jurisdiction.

Expanding the Federal Circuit's exclusive appellate jurisdiction to include the proposed new forms of intellectual property, such as vessel hull designs or the compilations of information, meets all four of these criteria.

The creation of an intellectual property court without good reason seems to be a vain thing. Yet, the compelling benefits of this new jurisdiction promise it will follow the very successful tradition that the patent law renaissance embodies. The risks of intercircuit conflicts and forum shopping threaten to make new rights ineffective as envisioned. Legislation providing such jurisdiction even temporarily as the exclusive forum for these appeals, such as sunsetting after a trial period of ten years for example, would yield important benefits. A narrowly tailored proposal conferring unified appellate jurisdiction is a clever compromise of past proposals. It would also help these new fields of law evolve uniformly, provide certainty for all parties (e.g., business firms, litigants, and users), strengthen our industrial base, improve our trade and competitiveness, and promote innovation. Finally, it will enlighten our understanding of the time-proven and valuable consolidated appellate court system, and with this, of the Federal Circuit.

^{184.} See id. at 5 (noting pressure from "vested interests and pressure groups"). "Congress deserves praise for having the courage to tackle semiconductor legislation." Kasch, supra note 142, at 99. See also Chris J. Katopis, Patients v. Patents? Policy Implications of Recent Patent Legislation, 71 St. John's L. Rev. 329 (1997) (describing the political and ethical difficulties surrounding medical patent legislation).

CONCLUSION

The great lesson of the Federal Circuit is that for certain legal fields a consolidated national appeals forum provides many jurisprudential advantages over a system of regional courts of appeals while at an acceptable cost. One notable advantage of such a court is the annealing or the greater uniformity of the law within its jurisdiction. This ensures that legal and economic resources are better allocated due to the greater legal certainty for individual and societal decision-making. The best evidence of this development is the court's renaissance of patent law, and thus the enhancement of progress' incentives and fruits. Jurisdictional procedures fundamentally affect the law by shaping its substance. In intellectual property, and the balance of the law, this can guarantee strong rights and effective remedies.

The fundamental bargain embodied by all intellectual property law is the exchange of a private incentive for the public good. Greater uniformity in the law protects and enhances the incentives for the creation and authorship to enrich the public that the Framers envisioned and enshrined in the Constitution. Congress' careful crafting of laws in this area is not its obligation. but certainly helps to secure that purpose. Our intellectual property system may be enhanced in a variety of ways to make it understandable, uniform, reliable and consistent. tailoring court jurisdiction is a simple and proven enhancement. A Federal Circuit jurist said it best, "[t]he Federal Circuit alone may not provide us with all of the answers, but it provides us with an available case study from which at least preliminary lessons can be learned."185 While Congress hesitates to build on the success of the Federal Circuit, it must not ignore the opportunity to thoroughly explore its lessons. The strong public interest in advancing progress in the arts and sciences, and stimulating the marketplace demands that the valuable lessons the Federal Circuit teaches us are not lost.