INTRODUCTION

THE FEDERAL COURTS IMPROVEMENT ACT was signed into law on April 2, 1982. Set for an effective date of October 1, 1982, the result of this enactment has been the merger of the Court of Customs and Patent Appeals and the Court of Claims into a new appellate federal court: the Court of Appeals for the Federal Circuit. Unlike most appellate courts, the jurisdiction of the new Federal Circuit is determined primarily by subject matter, rather than geography. As a result, this change in the federal judiciary will be felt directly in only a few special legal subject areas. Among these, the field of patent law is feeling perhaps the greatest impact, beginning a new era which Congress intended to begin with the Patent Act of 1952.

I. THE FEDERAL COURTS IMPROVEMENT ACT

The initial impetus for the Federal Courts Improvement Act was concern over the ability of the appellate level federal courts to handle the alarming increase in cases. The first organization to act on this concern was the Federal Judicial Center ("Center"). The Center, charged with the responsibility "to further the development and adoption of improved judicial administration in the courts of the United States," appointed a committee of seven scholars and lawyers headed by Harvard Law Professor Paul Freund to study the caseload of the Supreme Court. The "Freund Report," submitted in December, 1972, recommended the establishment of a national court of appeals to con-

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"28 U.S.C. § 1295(a) (West Supp. 1983) provides in part:
"The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction — (1) of an appeal from a final decision of a district court of the United States . . . if the jurisdiction of that court was based, in whole or in part, on section 1338 of this title [which confers original jurisdiction on the district courts over all civil actions arising under any Act of Congress relating to patents, inter alia].
duct a screening of petitions for review, thereby reducing the Supreme Court caseload.8 The national court of appeals was to be interposed between the existing federal circuit courts of appeals and the Supreme Court, adding a level to the federal judicial hierarchy.9

After the appointment of the Freund Committee, but before the submission of its report, Congress established the Commission on Revision of the Federal Court Appellate System.10 This created the second organization which would concern itself with the appellate caseload. Known as the "Hruska Commission," this body submitted its final report in June, 1975.11 Although the Hruska Commission focused more on the federal appellate courts, it too recommended the creation of a national appellate court. However, the Hruska Commission recommended a new court to play an ancillary role to the circuit courts and the Supreme Court, receiving transfer cases from each,12 rather than a court to be interposed as an additional layer of the hierarchy to screen the Supreme Court. While the recommendations of neither the Freund Committee nor the Hruska Commission were adopted by Congress, they established a framework for the subsequent debate which ultimately led to the Federal Courts Improvement Act of 1982.13

In the course of the dialogue on alteration of the federal courts, incentive for change seemed focused at the circuit court level.14 In the months following the Hruska Commission report; there was general agreement that the existing proposals for sweeping revision would not necessarily satisfy the overriding need to relieve the flow of cases to the federal appellate courts. Problems not satisfactorily cured by either the Freund or Hruska proposal included the overly burdensome caseload and the inability of the system to provide timely adjudication of issues of national law.15 Eventually, the Justice Department issued a report on July 21, 1978 entitled "A Proposal to Improve the Federal Appellate System."16 This report was later forwarded to the Senate Committee on the Judiciary where it became the focal point of the developing legislation later enacted by Congress.17

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9See generally FREUND REPORT, supra note 8, at 590-95.
12Id. at 236-47. See also Petrowitz, supra note 5, at 546.
13Petrowitz, supra note 5, at 544-50.
14Id. at 546.
15Id. at 549.
16Office for Improvements in the Administration of Justice, U.S. Dep't. of Justice, A PROPOSAL TO IMPROVE THE FEDERAL APPELLATE SYSTEM (July 21, 1978) (draft report) [hereinafter cited as PROPSAL]. See also Petrowitz, supra note 5, at 550. Id. at 550.
17See Petrowitz, supra note 5, at 551.
By the time the Federal Courts Improvement Act was passed, it was clear that relief from burdensome caseloads was not the sole purpose of the legislation. An equally important purpose was improvement of the timely adjudication of issues of national law. Patent law was one of several areas frequently cited by congressional committee reports as ripe for resolution of doctrinal conflicts among the federal circuit courts. The legislative history is replete with testimony concerning rampant "forum shopping" among patent litigants. As a result, the proponents of the legislation strongly advocated one recommendation common to both the Hruska Report and the Department of Justice Proposal. The new court was given exclusive jurisdiction to hear appeals in patent-related cases.

Even before the legislation became effective, patent commentators were developing predictions of the course that the new circuit court would take on resolution of patent issues then in conflict among the several circuits. The new court was expected to have a profound effect on the field of patent law. Since then most practitioners have quickly come to view the new Court of Appeals for the Federal Circuit as the ultimate source of law in patent-related cases. They have reached that conclusion both because of the volume of cases the court will hear, and because the Supreme Court is unlikely to alter whatever doctrinal stance the new Court of Appeals for the Federal Circuit may adopt. The Supreme Court might be expected to defer generally to the Federal Circuit's opinion on patent law issues in order to effectuate the purpose of the Federal Courts Improvement Act. Furthermore, even if the Supreme Court finds itself in disagreement with a position adopted by the Federal Circuit, it is unlikely the Court could find the time to hear the cases necessary to divert a trend. If the Supreme Court were to intervene, the present justices of the Federal Circuit might attempt to side-step the Supreme Court pronouncement

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The purpose of the proposed legislation is to resolve some of the myriad structural administrative and procedural problems that have impaired the ability of our Federal courts to deal with the vast range of controversies among our citizens and to respond promptly and meaningfully to their demand for justice. Those problems — which include the inability of our present system to provide a prompt, definitive answer to legal questions of nationwide significance — have long been debated by legislators, judges, lawyers, legal scholars, and those members of the general public concerned with the administration of the Federal justice system.


21See Petrowitz, supra note 5, at 553.


24See, Petrowitz, supra note 5, at 557: "It seems safe to predict that few of the new court's decisions will reach the Supreme Court because of the consistency that should result from decisions of the Federal Circuit." Id.

as they have been known to do in the past.26

On October 1, 1983, the Court of Appeals for the Federal Circuit celebrated its first birthday. During its brief existence the court has had occasion to address many of the issues previously in conflict among the circuits and to foreshadow a new era in patent law. The court's impact has been profound yet not altogether surprising, considering that the die was cast for this new era over thirty years ago.

II. PATENT LAW

A. Introduction

For centuries, the laws of Western civilizations have recognized the unique attributes of novel ideas.27 As with ownership of land or other property, the originator of a novel idea has the power to exclude others from its enjoyment by remaining silent. However, unlike tangible property, once an idea has been passed to another the owner's dominion over that idea can never totally be restored. The idea can be passed from person to person, rapidly stripping its originator of any benefit.

Western civilizations also have long recognized the potential benefit to society which can result from recognition of property interests in novel ideas.28 Understanding of this effect led to the enactment of one of the earliest patent laws around the year 1400 by the City of Venice.29 Lawmakers of Venice apparently believed that talented people could be attracted to their city and contribute to its welfare if the laws empowered those people to exercise some ownership control over their ideas.30 Since that time, most industrialized nations, including communist countries, have accepted the belief that some grant of limited legal protection by the sovereign over ideas encourages the generation and disclosure of ideas and benefits society.

The laws surrounding patent protection of ideas generally have been the product of three competing interests. First, there is a sense that an individual who originates and perfects an idea has some "natural right" to ownership of that idea which should be recognized by society.31 Second, there is the belief underlying the early Venice statute and still pervasive today that the granting of exclusive ownership rights over developed ideas will provide incentive and

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26 See, e.g., Parker v. Bergy, 438 U.S. 902 (1978), which the Supreme Court vacated and remanded to the C.C.P.A., only to have the C.C.P.A. adhere to its original position on remand. Application of Bergy, 563 F.2d 1031 (C.C.P.A. 1977).
28 Id.
30 See id.
31 This sentiment is evidenced by the following quote taken from a 1559 petition by Giacopo Aconto to Britain's Queen Elizabeth: "[N]othing is more honest than that those who by searching have found out things useful to the public should have some of the fruits of their rights and labors, as meanwhile they abandon all other modes of gain, are at much expense in experiments and often sustain much loss." R. Chote & W. Francis, supra note 26, at 69. See also Frederico, Origin and Early History of Patents, 11 J. Pat. Off. Soc'y. 292 (1929).
stimulate productive effort to the benefit of society. Third, there is the contrasting belief that free market societies suffer an output constraint to the detriment of the society wherever there exists exclusive control or monopolies, such as those which patents create.

B. United States Patent Laws and Patentability Requirements

In apparent acknowledgment of both the natural right and the societal benefit rationales for patent laws, the framers of the United States Constitution adopted clause 8 of section 8 of Article I, which provides that "[T]he Congress shall have power . . . [T]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The constitutional history discloses no debate on this clause. However, James Madison's writings in The Federalist, No. 43, establish that the natural right and societal benefit rationales were the basis for its adoption.

A bill aimed at exercising that constitutionally conferred power was introduced in the first session of the first Congress and passed in the second session. Under that statute, enacted on April 10, 1790, a patent was available for "useful" inventions or discoveries "not before known or used." In 1793, a new statute repealed the 1790 statute and replaced it with a statute allowing patent availability for "new and useful" inventions "not known or used before the application." This statutory standard for patentability remained virtually unchanged for the next 159 years. Nonetheless, the actual standard applied by courts during that same period varied greatly.

Even in the three brief years between the first patent acts, it was evident to Thomas Jefferson, as Secretary of State and Patent Examiner, that a higher standard of patentability was needed than the mere novelty and utility requirements of the statute. Under these standards, trivial advances were entitled

See Mandich, supra note 29.


U.S. Const. art. I, § 8, cl. 8.

R. Choate & W. Francis, supra note 27, at 74.

Id. at 74. Madison stated:

The utility of [the Constitutional] clause will scarcely be questioned. The copyright of authors has been solemnly adjudged in Great Britain to be a right at Common Law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals.

Id.


An Act to promote the progress of Useful Arts, ch. 7, 1 Stat. 109 (1790) (repealed 1793).

Stat. 318, Feb. 21, 1793.

The next substantial change to the statutory standard of patentability occurred with the Patent Act of 1952.


to patent protection. This problem worsened as the pace of technological advance quickened, as revealed in the following language from an 1826 opinion:

The most frivolous and useless alterations in articles in common use are denominated improvements, and made pretexts for increasing their prices, while all complaint and remonstrants are effectually resisted by an exhibition of the great seal. Implements and utensils, as old as the civilization of man, are daily, by means of some ingenious artifice, converted into subjects for patents. If they have usually been made straight, some man of genius will have them made crooked, and, in the phraseology of the privileged order, will swear out a patent.43

In response to the need for a higher patentability standard, the judiciary sought to supplement the novelty and utility requirements enumerated in the patent statutes. It did this through the use of a variety of vague and often inconsistent concepts asserted either as an over-arching constitutional limitation or, more commonly, as a judicial construction of "invention."44 The emerging doctrines required that a device contain a "new principle" or exhibit a "new result or new function" in order to be patented.45 Other cases required that the change over previous knowledge be "nonobvious" or occur in a "flash of creative genius."46 Though most of these supplemental tests of patentability were couched in terms of an "invention" requirement during this entire 159 year period, no one seemed to know for sure what the "invention" standard meant.47 The Supreme Court stated in 1891:

The truth is, the word [invention] cannot be defined in such a manner as to afford any substantial aid in determining whether a particular device involves exercise of the inventive faculty or not. In a given case, we may be able to say that there is present invention of a very high order. In another we can see that there is lacking that impalpable something which distinguishes invention from simple mechanical skill.48

A possible explanation for the judiciary's confusion during the years 1793 to 1952 on the judge-made supplemental patentability requirement is the incompatibility between the necessary parameters of substantive patent law and the competing interests which underlie patent law. In simple terms, the nature of any patent system can be viewed as a difficult economic problem of tradeoffs between incentive effects and output-constraining monopoly effects.49 Nevertheless, to avoid a logistically impossible case-by-case evaluation of these competing economic interests with each patent application, a viable patent system

4"See generally Kitch, supra note 41, at 237.
4"Id. at 262, 273.
4"Id. at 245-26.
4"See it. at 240-41, 268-77.
must develop some set of working concepts for differentiating between patentable and unpatentable inventions so as to maintain an appropriate balance between the economic interests. Under the Patent Act of 1793 the concepts were "novelty" and "utility"; the judiciary added "invention." In effect, a patent law system is forced to use attributes of the invention or attributes of the process leading to the invention as a proxy for the balancing of economic arguments.

In the years from 1793 to the middle 1900's, anti-monopolist sentiment in the United States varied. As these political-economic sentiments varied, the judiciary's perception of a proper equilibrium point between the incentive effects and the output constraining effects of the patent system also varied. However, because the judiciary was forced to use invention attributes as a proxy for its sense of an economic equilibrium, a consistent standard of patentability was analytically impossible to achieve. This complication, combined with the inevitable tendency to evaluate the worthiness of the invention, may have been the source of the judiciary's inconsistency on the patentability standard.

With the history of the judiciary's "invention" requirement in mind, Congress set out in 1950 to modestly revise and codify the patent laws. The revisers determined that the third judge-made requirement for patentability should be codified. They decided that the term commonly used by the courts — "invention" — should be avoided due to its ambiguity and inconsistent usage. Instead, the drafters settled on the language in Section 103, requiring non-obviousness. This section was added "for uniformity and definiteness' and to provide "a stabilizing effect and minimize great departures which have appeared in some cases."

Despite this major innovation, the 1952 Patent Act was not entirely effective at establishing a consistent patentability standard. As recently as 1978, appellate court justices have continued to perceive the existence of an "invention" requirement. Similarly, the language of the few Supreme Court cases decided on the patentability issue since 1952 has occasionally slipped back into the previous "invention" rut. Furthermore, language in Supreme Court cases since that time regarding "combination patents" and "synergism" have led federal district and appellate courts to occasionally adopt these concepts as

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90Act of Feb. 21, 1793, ch. 11, 1 Stat. 318 (1793).
91See Kitch, supra note 41, at 270-72.
93Rich, supra note 42, at 271.
95See, e.g., Edwards, That Clumsy Word "Nonobviousness," 60 J. PAT. OFF. SOCY. 3 (1978). Judge Edwards of the Sixth Circuit U.S. Court of Appeals states: "The requirement of invention for patentability is alive and well in the Supreme Court of the United States, and as a consequence, in all of the federal courts — and the Patent Office." Id. at 12.
requirements of patentability in addition to the statutory requirements.57

The 1952 Patent Act’s failure to put an end to judge-made supplemental requirements for patentability may be attributable to several factors. Perhaps the greatest of these is the Supreme Court’s apparent willingness in this and many other areas of law to inject its own policy judgment into statutory and constitutional construction. Rather than accept the patentability standards of novelty, utility and nonobviousness established by Congress as a reasonable proxy for a satisfactory economic equilibrium between the incentive effects and the output constraining effects of the patent system, the Supreme Court occasionally wanders beyond the literal language of the statutes, apparently guided by its own sense of the proper boundaries on patentability. The infrequency of Supreme Court decisions in this area compounds this effect. The Supreme Court’s apparent reluctance to hear patentability cases has allowed the appellate courts to read undue meaning into its decisions in this area since 1952.58

Against this background of confusion, Congress formed the Court of Appeals for the Federal Circuit. Despite Congress’ attempt in 1952 to stabilize patent law, particularly on the patentability standard, the confusion was as great in 1982 as in nearly any time since 1793. Many conflicts among the circuit courts were ripe for resolution.

III. RESOLUTION BY THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT OF ISSUES RELATING TO THE SECTION 102 PATENTABILITY REQUIREMENT OF THE PATENT ACT OF 1952

A. Introduction

The patent law issues in conflict among the circuits most frequently cited as ripe for resolution by the new court were those controversial issues arising under the nonobviousness requirement of the statute, added in 1952.59 That code section provides as one of the conditions for patentability that the invention must not have been obvious at the time it was made to a person having ordinary skill in the discipline related to the invention.60 The Supreme Court first construed this statutory provision fifteen years after its enactment in Graham v. John Deere Co.61


58See Rich, supra note 42, at 296-301: “One can therefore conclude that the Supreme Court routinely chooses not to interfere in the administration of the patent law by the Circuit Courts. . . . Over the past 12 years, the Supreme Court has averaged less than 1 patent case in 2 years.” Id. at 301.


6035 U.S.C. § 103 (1976) provides in part:

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

In deciding *Graham*, the Supreme Court recounted the history of patent law development under the constitutional provision. The Court explained that between 1790 and 1950 the Patent Act had contained statutory requirements only of "novelty" and "utility." In the Court's view the Patent Act had deferred to the courts during that period for development of additional conditions to patentability where necessary. The Court stated that the nonobviousness requirement added by the 1952 Patent Act represented a codification of the prior judge-made requirement of "invention" first developed in *Hotchkiss v. Greenwood*. The Court concluded that the judge-made standard for patentability had not been altered in any way by this codification, and that the statutory emphasis on "non-obviousness" rather than "invention" was intended to correct the wide variance of interpretation of the less definite *Hotchkiss* "invention" standard. The Court approved of the change of emphasis to a nonobviousness inquiry, stating that it would permit a more practical test of patentability, and went on to make the following statement:

While the ultimate question of patent validity is one of law, the § 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art are resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long-felt but unresolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.

This is not to say, however, that there will not be difficulties in applying the nonobviousness test. What is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context. The difficulties, however, are comparable to those encountered daily by the courts in such frames of reference as negligence and scienter, and should be amenable to a case-by-case development. We believe that strict observance of the requirements laid down here will result in that uniformity and definiteness which Congress called for in the 1952 Act. (citations omitted).

The court then applied this analysis to the facts of the case and held the patent invalid for obviousness.

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4*U.S. Const.*, art. 1, § 8, cl. 8.
4*Graham*, 383 U.S. at 5-10.
5*52 U.S. (11 How.) 683 (1850).
6*Graham*, 383 U.S. at 14-17.
7*Id.* at 17-18.
B. The Conflicts Among the Circuit Courts

1. Origins of the Conflicts

The Section 103 nonobviousness prerequisite to patentability is the focal point of the three most litigated issues in conflict among the circuits in recent years. The above quote was the source of two of the three issues. They are: (1) whether the section 103 nonobviousness requirement is a question of fact or a question of law under the Graham analysis, and (2) whether reference to the so-called "secondary considerations" mentioned by the Graham Court is required or optional in determining nonobviousness.

The third of the major patent issues in conflict under Section 103 arose in a Supreme Court decision three years after Graham in Anderson's-Black Rock, Inc. v. Pavement Salvage Co. In that case, the validity of a patent on an item consisting of a combination of known devices was challenged. The patentee had combined existing devices to create an improved asphalt paving apparatus. The Court held the patent invalid stating, among other things:

Each of the elements combined in the patent was known in the prior art . . . .

. . . The combination of putting the burner together with the other elements in one machine, though perhaps a matter of great convenience, did not produce a "new or different function," within the test of validity of combination patents . . . .

We conclude that while the combination of old elements performed a useful function, it added nothing to the nature and quality of the radiant-heat burner already patented. We conclude further that to those skilled in the art the use of the old elements in combination was not an invention by the obvious-nonobvious standard. Use of the radiant-heat burner in this important field marked a successful venture. But as noted, more than that is needed for invention.

A combination of elements may result in an effect greater than the sum of the several effects taken separately. No such synergistic result is argued here . . . .(citations omitted).

This segment of the Court's opinion went far toward undoing the 1952 Patent Act and the dissertation in Graham. Even those federal courts which had previously abandoned the decades of traditional judge-made supplements in favor of the statutory patentability requirements were thrown back into a rut. This language gave rise to a perceived requirement, in the case of "combination patents," for "synergism." Thus, the third controversial issue under Section

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69Id. at 59-64.
103 awaiting resolution by the new court was whether "synergism" is required of a "combination patent" in order to meet the nonobviousness prerequisite to patentability.

The fact that each of the above three issues have been hotly debated since Graham is not surprising, considering their significance in patent litigation. The question of whether or not synergism is a requirement for patentability is of great interest to litigants on both sides in any particular patent infringement suit. Synergism is an elusive concept, difficult to prove, and it can easily be employed to defeat an opponent's patent.

Similarly, the "secondary considerations" can play an important role in patent litigation. A patentee, for example, may often have strong evidence of commercial success, although the patented invention may appear obvious in hindsight to a judge or jury. In such a situation, the case of the patentee in an infringement suit would be benefited greatly by a determination that secondary considerations are always to be examined — a determination to be contrasted with the view that secondary considerations are to be examined only if the three step Graham analysis of obviousness is equivocal.

The third issue, whether nonobviousness is a question of law or fact, has great impact on the scope of review of the trial court's ruling. Even before the Supreme Court's language referring to "basic factual inquiries" in the Graham case, federal courts applying Section 103 had addressed this thorny question concerning law and fact. Yet, Graham did little to resolve the issue and subsequent circuit court cases have gone both ways.

Speculation regarding the outcome of these issues under the new court flourished among patent law observers. Observers wondered how the Federal Circuit would interpret the Supreme Court's apparent construction of Section 103. While forecasting the likely direction of the Federal Circuit on these issues involved some uncertainty before the new court was installed, that uncertainty diminished shortly after formation of the Federal Circuit. In one of its first decisions, South Corp. v. United States, the newly formed Court of Appeals for the Federal Circuit announced that the holdings of its predecessor courts, the Court of Claims and the Court of Customs and Patent Appeals, would be binding precedent on the Federal Circuit. With this, the outcome of the "nonobviousness" issue became more certain since the predecessor opinions were in harmony on the synergism and secondary considerations issues.

Graham, 383 U.S. at 17.
See, e.g., Armour & Co. v. Wilson & Co., 274 F.2d 143 (7th Cir. 1960).
Goldstein, supra note 67, at 138.
690 F.2d 1368, 1369 (Fed. Cir. 1982).
See Ninth Judicial Conference, supra note 23, at 423.
However, uncertainty remained regarding the question of fact or law issue, since the Court of Claims had been in conflict on that issue with the Court of Customs and Patent Appeals. Patent law practitioners eagerly awaited ultimate resolution by the Court of Appeals for the Federal Circuit.

2. Whether “Synergism” Is A Condition Of Patentability

As noted above, the notion of a synergism requirement had its origin in Anderson’s-Black Rock. It was reinforced by later Supreme Court language in Sakraida v. Ag Pro, Inc. Several circuits have adopted synergism as a prerequisite to patentability of combination inventions, despite frequent criticism by patent law commentators.

 Nonetheless, patent law practitioners and commentators expected the new Federal Circuit to discard the synergism requirement. That expectation has been met. Since its formation, the Federal Circuit has decided at least two cases which addressed the synergism issue. In Chore-Time Equipment, Inc. v. Cumberland Corp., the court apparently went out of its way to attach the requirement. The lower court’s holding of patent invalidity in that case was not premised upon a synergism requirement. Nonetheless, the trial court judge had stated that “[t]here is no synergistic result from the combination of elements, a result which is more than the sum of the pre-existing elements.” The Federal Circuit affirmed the lower court’s holding and pointed out that consideration of synergism is an error, although in this case not a reversible error. The court stated:

In determining patentability, we are guided, as we must be guided, by the statute. A requirement that an invention reflect “synergism” or achieve a “synergistic result,” before it may be held patentable appears nowhere in the statute. The test of obviousness under 35 U.S.C. § 103, as the statute makes plain, is whether the invention as a whole would have been obvious at the time it was made to one of ordinary skill in the art. References to synergism as a patentability requirement are, therefore, unnecessary and confusing (citation omitted).

Twelve days after Chore-Time, the Federal Circuit again attacked the synergism requirement in Stratoflex, Inc. v. Aeroquip Corp. The trial judge in that case had employed a synergism test as an alternative to the Graham

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"Ninth Judicial Conference, supra note 23, at 436.

"425 U.S. 273. The Court stated, “We cannot agree that the combination of these old elements to produce an abrupt release of water directly on the bar floor from storage tanks or pools can properly be characterized as synergistic . . . .” Id. at 283.


"713 F.2d 774 (Fed. Cir. 1983).

"Id. at 780.

"713 F.2d 1530 (Fed. Cir. 1983).
analysis. Again, the Federal Circuit pointed out that this was error, though not cause for reversal, stating:

A requirement for "synergism" or a "synergistic effect" is nowhere found in the statute. When present, for example in a chemical case, synergism may point toward nonobviousness, but its absence has no place in evaluating the evidence on obviousness. The more objective findings suggested in Graham, supra, are drawn from the language of the statute and are fully adequate guides for evaluating the evidence relating to compliance with 35 U.S.C. § 103. [The trial judge] treated synergism as an alternative consideration. Hence this error of its analytical inclusion is harmless in view of [the trial judge's] employment of the Graham aids.

The reference to a "combination patent" is equally without support in the statute. There is no warrant for judicial classification of patents, whether into "combination" patents and some other unnamed and undefined class or otherwise. Nor is there warrant for differing treatment or consideration of patents based on a judicially devised label. Reference to "combination" patents is, moreover, meaningless. Virtually all patents are "combination patents," if by that label one intends to describe patents having claims to inventions formed of a combination of elements. It is difficult to visualize, at least in the mechanical-structural arts, a "non-combination" invention, i.e., an invention consisting of a single element. Such inventions, if they exist, are rare indeed. (citation omitted).

Clearly, the Federal Circuit has squarely addressed the synergism issue. It has dispensed with the synergism test of "combination patents" in no uncertain terms. Without hesitation the court has put a stop to the resurrection of judge-made supplemental patentability requirements which the Patent Act of 1952 sought to eradicate. Instead, the court will rely solely upon the statutory language.

3. Whether "Secondary Considerations" Are Always To Be Considered When Evaluating Obviousness

In Graham, the Supreme Court established a three-step test to be applied before reaching a conclusion on the question of obviousness. The Court also identified "secondary considerations" to be examined, but did not specify whether these considerations are necessary parts of the analysis or merely last resorts to be applied when the three-step analysis is equivocal. District and appellate court decisions since Graham have gone both ways, apparently allowing judges to employ or ignore the secondary considerations, depending upon the desired outcome. Nonetheless, patent law commentators examined the holdings of the predecessor courts and predicted that, under the Federal Cir-

\[\text{Id. at 1540.}\]
\[\text{See supra note 64 and accompanying text.}\]
\[\text{See Ninth Judicial Conference, supra note 23, at 415.}\]
cuit, these considerations would soon become mandatory.86

The prediction was correct. In *Richdel, Inc. v. Sunspool Corp.*,87 the Federal Circuit found harmless error in the district court's failure to include so-called "secondary considerations" in its analysis of obviousness.88 The court cited *Stratoflex*89 and *In re Sernaker*90 in support of this point. In this regard, the *Stratoflex* court stated:

It is jurisprudentially inappropriate to disregard any relevant evidence on any issue in any case, patent cases included. Thus evidence arising out of the so-called "secondary considerations" must always when present be considered en route to a determination of obviousness . . . . Indeed, evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all of the evidence, not just when the decision-maker remains in doubt after reviewing art.91

As with the synergism test, there is no doubt where the Federal Circuit stands. The preliminary facts determinable through application of the secondary considerations must always be taken into account before reaching the ultimate factual determination of obviousness. With this holding, the Federal Circuit will help inject "uniformity and definiteness" into the patentability issue by requiring the factfinders in each case to consider the same set of comprehensive factors and articulate the findings on these factors before reaching a determination on nonobviousness.

4. Whether Obviousness Is A Question Of Law Or Fact

As noted earlier, the nonobvious requirement under Section 103 was regarded by the *Graham* Court as a codification of the *Hotchkiss* invention requirement for patentability. The Supreme Court routinely treated the presence of "invention" as a question of fact until its decision in *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*92 Although the majority opinion in that case did not purport to alter this view, a concurring opinion by Justice Douglas maintained that the invention requirement was a question of law to be determined by reference to the patent clause of the Constitution.93 This view

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86 *Id.*
87 714 F.2d 1573 (Fed. Cir. 1983).
88 *Id.* at 6.
89 713 F.2d 1530.
90 702 F.2d 989 (Fed. Cir. 1983).
91 713 F.2d at 1538-39 (citations omitted).
would allow de novo review of a lower court's "invention" ruling. Following *Great A & P Tea Co.*, a number of courts began to treat the "invention" requirement as a question of law.\(^9\)

The Patent Act of 1952 was enacted two years after the *Great A. & P. Tea Co.* decision. When construing that Act for the first time in *Graham*, the Supreme Court, citing *Great A. & P. Tea Co.*, stated: "While the ultimate question of patent validity is one of law, . . . the Section 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries."\(^4\) Thus, while the *Graham* Court apparently adopted Justice Douglas' concurring opinion view in *Great A. & P. Tea Co.*, it remained unclear exactly how the inquiry should be treated and what the resulting scope of appellate review should be. As a result, circuit courts have differed on this point. The majority of courts view nonobviousness as a legal issue involving factual inquiries.\(^9\)

This issue is significant to patent litigants because it affects the allocation of responsibilities between judge and jury in a patent case and because it determines the scope of judicial review. If nonobviousness is a question of fact, then a ruling on patent validity in a jury trial will depend solely upon persuasion of the jurors. However, if it is a question of law based on factual determinations, then the judge must ultimately oversee the jurors' verdict.\(^9\) Moreover, if nonobviousness is a question of fact, then a jury verdict or judicial ruling of patent validity can be overturned on review only if it is found to be unsupported by substantial evidence or clearly erroneous, respectively. If nonobviousness is a question of law, then it is subject to de novo review on appeal.\(^9\)

Given the vast differences in the allowable scope of review, it is not surprising that the new Federal Circuit finds nonobviousness to be a question of law based upon factual inquiries and thus, fully reviewable. In at least two recent cases,\(^9\) the Federal Circuit has quoted language from the earlier Court of Customs and Patent Appeals case of *Stevenson v. International Trade Commission*\(^10\) to the effect that nonobviousness is a legal conclusion based on factual evidence rather than a factual determination. Under that scheme the findings of ultimate fact by a trial judge (the usual fact finder in patent suits) are accepted if not "clearly erroneous" upon the entire record, while the legal conclusion of obviousness is subject to de novo review based upon these ultimate

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\(^{10}\)383 U.S. at 17.

\(^{11}\)See, Note, *supra* note 92, at 620 n.56.

\(^{12}\)See generally id.

\(^{13}\)See Pravel, *supra* note 93, at 32-33.


\(^{15}\)612 F.2d 546 (C.C.P.A. 1979).
facts. Apparently the court feels it best to teach by example the appropriate legal standard of nonobviousness rather than to leave the nonobviousness issue to the erratic determinations of individual judges and juries as a purely factual inquiry. With this holding, the Federal Circuit will help to inject "uniformity and definiteness" into the patentability issue through its careful oversight of the case-by-case development mentioned in *Graham*.

In its treatment of patent law issues relating to Section 103 of the Patent Act, the Federal Circuit has not disappointed the legal commentators and forecasters. The court acted quickly to abolish the widely criticized synergism requirement for "combination" patents. The court aptly observed that these concepts have no basis in either the statute or critical thought. The court has also made clear that consideration of all relevant evidence, including the so called "secondary considerations," is necessary to a determination of "non-obviousness." Finally, the court has clarified the allocation of the fact-finding function and the scope of review by its determination that nonobviousness is a question of law based on findings of fact. The Federal Circuit's holdings on these issues signals a new era for patent law in which the determination of patentability will be based solely upon a thoughtful application of the statutory language. The tradition of judge-made supplemental requirements, present in most of the years since 1793, has finally been put to rest.

**IV. Resolution of Other Issues in Conflict Among the Circuit Courts**

In its relatively brief existence, the Federal Circuit has resolved several other less dramatic issues in a fashion similar to those mentioned above. Although less dramatic, the court's holdings on these issues are indicative of its overall approach to patent law jurisprudence. Two of these issues arise under Section 102 of the Patent Act which bars patentability of inventions which have been "in public use or on sale in this country" for more than one year before the filing of the patent application. This requirement is a specific variation of the long established "novelty" requirement.

**A. Experimental Use — Subjective or Objective Intent?**

An exception to the "public use or sale" rule occurs when the sale or use was conducted for "experimental" purposes. In this regard, the issue previously in conflict among circuit courts was the probative value of the inventor's subjective intent to a determination of whether a sale or use was experimental. The Fifth Circuit has held that determination of experimental use is primarily a matter of the inventor's intent, while the Ninth Circuit has held subjective intent of the inventor to be of no probative force when overwhelming extrinsic

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101Compare, Note, supra note 92, at 617, where the author imputes this same motive to Justice Douglas' dissenting opinion in *Great A & P Tea Company* which held nonobviousness to be a question of law.


103Goldstein, supra note 67, at 142.
evidence is to the contrary.\textsuperscript{104}

Considering that the Court of Customs and Patent Appeals had addressed this issue twice in recent years,\textsuperscript{105} adopting the stricter extrinsic evidence standard on both occasions, it is not surprising in light of the South Corp. pronouncement to find that the Federal Circuit has recently adopted that same view. In \textit{In re Smith},\textsuperscript{106} the Federal Circuit recently affirmed a holding of patent invalidity for public use despite appellant’s arguments that the use was purely experimental. The court stated:

Although the appellants argue that their St. Louis activities were used to obtain technical data for further technical development of the claimed invention, the evidence indicates that the activities did not fall within the experimental use exception. In determining the purpose of the alleged experimental use, objective evidence indicating a purpose for such testing and experiment is generally preferred. An inventor’s subjective intent is generally of minimal value.\textsuperscript{107}

B. "Late Claiming" or "New Matter"?

The second confusing issue under Section 102 of the Patent Act which has been addressed by the Federal Circuit during its brief existence is the "late claiming" doctrine. This unusual doctrine arose in the \textit{Muncie Gear} case after a patent applicant had amended a pending application to include new, broader claims despite the fact that the newly claimed subject matter had been in public use for more than one year.\textsuperscript{108} After the patent office issued a patent including the broader claims, the patent’s validity was challenged. The court held that the amended claims were statutorily barred by Section 102 to the extent that they included subject matter which had been in public use for over one year.

This doctrine has come under attack as nothing more than a "new matter" problem,\textsuperscript{109} to be dealt with under the statutory provision which prohibits certain application amendments that broaden the scope of the claimed invention. However, the Federal Circuit’s predecessors were in conflict regarding the issue.\textsuperscript{110} The Court of Claims appears to have largely accepted the legitimacy of the "late claiming" doctrine, while the Court of Customs and Patent Appeals in \textit{Westphal v. Fawzi}\textsuperscript{111} construed a situation similar to \textit{Muncie Gear} to be

\textsuperscript{104}Id.

\textsuperscript{105}Ninth Judicial Conference, \textit{supra} note 23, at 413.

\textsuperscript{106}714 F.2d 1127 (Fed. Cir. 1983).

\textsuperscript{107}Id. at 1135 (citing Robbins Co. v. Lawrence Mfg. Co., 482 F.2d 426, 431 (9th Cir. 1973); \textit{Cf.} In Re Theis, 610 F.2d 786 (C.C.P.A. 1979).


\textsuperscript{109}35 U.S.C. § 132 (1976) provides in part: "No amendment shall introduce new matter into the disclosure of the invention."


\textsuperscript{111}Westphal, 666 F.2d at 577.
a "new matter" issue.112

The Westphal court did not consider Muncie Gear to stand for a legal proposition distinct from the statutory "new matter" principle. Language in the recent Federal Circuit case of Correge v. Murphy113 suggests that the statutory, "new matter" mode of analysis will now prevail. Citing the Westphal case, the Federal Circuit stated in Correge: "Correge [the challenger of the patent's validity], has not argued and there is no evidence to support the position that the broadened claims were not supported by the application as originally filed. In light of the sufficiency of the disclosure, Correge cannot raise any so-called 'late claiming' issue."114 Taken in context, this language and the citation to Westphal suggest that the judge-made "late-claiming" language of Muncie Gear will be interpreted by the Federal Circuit as synonymous with the statutory "new matter" principle.

C. Fraud on the Patent Office — "Materiality," Objective or Subjective?

The last of the major issues in conflict among the circuit courts which has been addressed by the Federal Circuit involves fraud. Under patent common law, a showing by substantial evidence that the patentee practiced fraud upon the patent office by failing to reveal pertinent prior art is a defense to an infringement suit.115 Such a showing can result in the patent's being held invalid. On this issue, there has been conflict over whether the test for materiality of the withheld information is a subjective or objective "but for" test. As with the circuit courts, the predecessor courts to the Federal Circuit adopted opposing views on this issue. Cases decided by the Court of Claims in the mid-1970's adopted the "objective but for" test, which holds that a misrepresentation is material if and only if a patent would not properly have issued from the patent office but for the misrepresentation.116 In 1979 the Court of Customs and Patent Appeals held that the "subjective but for" standard was appropriate.117 This standard examines the actual position taken by the applicant and patent examiner during the patent application process. Materiality is found if the subject patent would not have issued from the patent office, given the actual position of the patent examiner, but for the misrepresentation.

While the Court of Appeals for the Federal Circuit has not spoken unequivocally on this issue, it appears that the subjective standard of the former Court of Customs and Patent Appeals will prevail. In Orthopedic Equipment Company, Inc. vs. All Orthopedic Applicances, Inc.,118 the Federal Circuit upheld a district court ruling that no fraud had been conducted by the patentee.

112Id.
113705 F.2d 1326 (Fed. Cir. 1983).
114Id. at 1329 n.4.
115See, e.g., Square Liner 3600, Inc. v. Chisum, 691 F.2d 362, 374 (8th Cir. 1982).
118707 F.2d 1376 (Fed. Cir. 1983).
The court observed that there was no finding of intent and further noted that "the nondisclosure was not found to be material; rather, the district court found that the examiner assigned to prosecution of the patent-in-suit independently ascertained the existence of the undisclosed prior art." This language and the language from cases cited in Orthopedic Equipment strongly suggest that a standard similar to the "subjective but for" test will emerge under the Court of Appeals for the Federal Circuit.

V. CONCLUSIONS REGARDING THE PATENT LAW JURISPRUDENCE OF THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Based upon the six issues examined above and the history of United States patent statutes before and after the 1952 Patent Act, some general conclusions can be drawn regarding the new patent law era ushered in by the Court of Appeals for the Federal Circuit.

On the issues relating to patentability, the Federal Circuit is clearly more inclined to adhere to the language of the patent statutes than some other federal courts have been. This is evident in the court's early opinions which make a point of correcting district court language about "combination patents" or "synergism." The Federal Circuit apparently perceives the central question of patent validity to be whether the invention is patentable under the statutes as enacted by Congress in 1952. The Court eschews pejorative language regarding "patent monopolies" and the like, which serves only to distract from the statutory analysis. The Court apparently feels that the economic trade-offs of the patent system have been established by Congress and are irrelevant to a judicial inquiry into an invention's patentability under the present statutes.

On issues not directly related to patentability which were in conflict among the circuits, the Federal Circuit tends toward views which inject greater stability and rationality into the patent laws — objectives underlying both the Patent Act of 1952 and, perhaps, the Federal Courts Improvement Act of 1982. This tendency is evidenced by the court's holdings that the "late claiming doctrine" is simply a statutory "new matter" problem and that determination of "experimental use" should turn on extrinsic rather than subjective evidence. Where possible, the court would apparently prefer to base its judgments upon the conceptual framework provided by the statute and upon the most objective evidence available.

119Id. at 1383-84.
120See, supra text accompanying notes 80-83.
121See, e.g., Carl Schenk, A. G. v. Norton Corp., 713 F.2d 782 (Fed Cir. 1983) which states:
Norton's brief characterizes Schenk as a "German Monopolist." That denigration, whether inserted in a vain hope of prejudicing the court or otherwise, has no support in the present record. Disclosure of an invention found to have revolutionized an industry is but a classic example of the ideal working of the patent system. If a patentee or licensee enjoys widespread sales, that too is but an example of the incentive-useful acts promoting element in the patent system.
Id. at 784.
122See, supra notes 102-133 and accompanying text.
The source of these differences in patent jurisprudence between the Federal Circuit and other federal courts in the past, is difficult to identify. Perhaps it results from the years of exposure to patent law issues by some of the court's members. Perhaps the inclination to adhere to the statutory language represents a personal philosophical position held by a majority of the Federal Circuit judges regarding the role of the judiciary. Or perhaps the court's recognition that it will frequently deal with issues of patent law forces it to adhere to the most analytically sound and defensible positions available in that arena. Whatever the reason, it is clear that the court will set a new tone to patent law.

Numerous other issues in conflict among the circuits have been the subject of predictions regarding the new direction that the Court of Appeals for the Federal Circuit may take. While the six issues examined above are not the only issues to have been resolved by the Federal Circuit during its brief existence, they are perhaps the most significant. In any event, the record of predictability of their outcomes lends certainty to future predictions regarding issues yet unresolved.

The impact of the Federal Court Improvement Act of 1982 on patent law may well exceed the intentions of its proponents. Not only did it have an immediate impact on jurisdiction of patent appeals, leading to the intended resolution of patent law conflicts, but there was also an immediate and equally dramatic impact upon patentability jurisprudence. This impact on patent law jurisprudence appears to comport with the legislative purpose of the 1952 Patent Act. Perhaps now, thirty years after its original enactment, the Patent Act of 1952 will finally realize its intended purpose, via the Federal Courts Improvement Act of 1982 — to bring "uniformity and definiteness" to patent law, to provide "a stabilizing effect and minimize great departures" on the requirements for patentability.

TIMOTHY J. O'HEARN

123See, Rich, supra note 42, at 278, where Judge Rich estimates that in his twenty-two years on the Court of Customs and Patent Appeals that court decided between 1700 and 1800 decisions finding inventions unpatentable.

124See Rich, supra note 42, at 290, which states:

   It is at this point that I have to ask whether section 103 is not an evolution in legal thinking on just what the third requirement of patentability is. Can we logically go back from nonobviousness as laid out in 103 to the vague requirement of "invention"? Can we have them both at the same time? I would ask the judge who feels that nonobviousness is clumsy, either as a word or an idea, whether it is not less clumsy than "invention." And I ask what right the courts have to substitute their own ideas of what the requirement is for what Congress has said it is. Is it not their duty to apply the law as Congress wrote it?

   When the courts filled the void in the patent law by adding the requirement to "invention," there was no statute on the subject. Since 1952 there has been no void, but a carefully worked out statutory substitute for the rough-hewn stopgap the courts produced which the courts themselves said they could not explain.

   Id.

123See, e.g., Ninth Judicial Conference, supra note 23; Goldstein, supra note 67.