REFORMING THE NON-OBVIOUSNESS JUDICIAL INQUIRY

INTRODUCTION

The essence of the patent system is rooted in the *quid pro quo* that provides incentives for innovation that enable the public to benefit from the corresponding disclosure of invention in promoting the progress of science. 1 Society’s utmost concern is to

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1 Patents are granted on inventions that promote progress. See U.S. CONST., art. I, § 8, cl. 8 (“The Congress shall have Power...To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective
only allow patent protection for inventions that “bring[] more innovation benefits to society than the patent costs.”

Actualization of a net benefit to society requires a system that grants patents for those inventions induced by the patent system.

Valuing the public’s interest, Congress has codified gatekeepers of patentability. Effectuation of society’s interest depends on the precise execution of these statutory mandates in the granting of patents by the Patent and Trademark Office and the courts, namely the Court of Appeals for the Federal Circuit.

Non-obviousness is recognized as the “ultimate condition of patentability.” It has also been referred to as the “final gatekeeper of the patent system.” Recognizing the underlying societal importance in this requirement, the Supreme Court has noted that awarding patents “to advances that would occur in the ordinary course without real innovation retards progress.” The Supreme Court has further elaborated the rationale: obvious inventions will be achieved without a patent incentive and are advances that do not benefit society enough to warrant imposing the costs of a patent monopoly on the public. Thus, “the nonobviousness requirement protects society against the social costs both of denying a deserving patent and of granting an undeserving monopoly.”

Writings and Discoveries.”)


3 See A. Samuel Oddi, Beyond Obviousness: Invention Protection in the Twenty-First Century, 38 Am. U. L. Rev. 1097, 1101 (1989) (“These ‘patent-induced’ inventions are ones that would not have been made but for the availability of patents.”).


5 ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, PATENT LAW AND POLICY 612 (4th ed. 2007).

6 KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, 402 (2007). The purpose of the non-obviousness requirement is to assure that only significant technological advances merit a patent award. See Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 156 (1989); CHISUM, supra note 4, at § 5.01; MERGES & DUFFY, supra note 5, at 644.

7 See Bonito Boats, 489 U.S. at 156; see also Graham v. John Deere Co. of Kansas City, 385 U.S. 1, 6 (1966) (explicating that without innovation and social benefit, patent protection removes useful knowledge from the prior art instead of promoting progress). Even Thomas Jefferson, author of an early Patent Act and member of the Patent Board, recognized the importance “of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent and those which are not.” Letter from Thomas Jefferson to Mr. Isaac M’Pherson (Aug. 15, 1813), in 6 THE WRITINGS OF THOMAS JEFFERSON 181 (H.A. Washington ed., 1905).

8 Gregory Mandel, The Non-Obvious Problem: How the Indeterminate Nonobviousness Standard Produces Excessive Patent Grants, 42 U.C. Davis L. Rev. 57, 62 (2008). See also Bonito Boats, 489 U.S. at 151, 156 (stating that the non-obviousness standard provides “a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy”).
Non-obviousness is an overwhelmingly prominent area in patent litigation. Although empirical evidence on the function and impact of the patent system is meager, in what is considered to be the most extensive set of data ever gathered on patent litigation, obviousness was found to be the most frequently used basis for judicial invalidation of patents. Subsequent support was found in the Allison & Lemley study that examined 300 patents litigated in 239 different cases in the district courts or Federal Circuit from 1989 through 1996: of the 138 patents held invalid in the population, 58 or 42% of invalidity determinations were made on the basis of obviousness. Furthermore, obviousness was the most popular theory of invalidity asserted by defendants in litigation (asserted in 160 out of 300 cases).

Patent litigation has witnessed an increasing role in jury trials; the “Federal Judicial Center statistics indicate that in 1978, only 8.3% of all patent cases were tried to a jury, while in 1994, 70% of all patent trials were held before juries.” In the Allison & Lemley study, validity was decided by a jury in 24.3% of cases, by a judge in 47.7% of cases, and during pretrial motions (summary judgments and directed verdicts) in 27.3% of cases. Additionally, 62.5% of the jury findings of invalidity were premised on obviousness, whereas in bench trials, judges invalidate a patent for obviousness in 42.6% of cases.

The non-obviousness requirement has been regarded as the “center of innovation policy and the technology economy in the United States” and as the integral unit for the protection of the U.S. patent system. The empirical studies of patent litigation demonstrate the prevalent role non-obviousness has in determining patentability. In summation, it is the most commonly litigated patent validity issue, and the requirement most likely to

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10 See Allison & Lemley, supra note 9.


12 Allison & Lemley, supra note 9.

13 Id.

14 Allison & Lemley, supra note 9 (citing HERBERT F. SCHWARTZ, PATENT LAW & PRACTICE 130 (2d ed. 1995)).

15 Allison & Lemley, supra note 9.

16 Id.

17 Mandel, supra note 8, at 62.

result in patent invalidation. Juxtaposed with its role as a gatekeeper protecting the public’s interest, the desire for a clear and definitive standard of non-obviousness is plain and commanding.

Despite its leading importance in patent law, the non-obviousness judicial standard of patentability remains in flux. Courts have failed to meet the goal identified in *Graham v. John Deere Co. of Kansas City* to create a “more practical test of patentability” and they have not fulfilled Congress’s desire for a “more uniform and definite” test – the intention behind codification of non-obviousness.

“Appropriate application of the nonobviousness standard is critical to the function of patent law.” Improper application can retard technological progress and be socially and economically damaging. At risk is a “socially detrimental shift in research and development away from targeting great technological advances and towards more mundane innovation.” A poorly implemented standard of non-obviousness “results either in inefficiently low incentives to innovate (reducing technological innovation) or permits the patenting of trivial advances, leading to patent thickets and other inefficiencies, and similarly reducing future technological advance.” Likewise, indeterminacy will have a deleterious effect on patent litigation where parties will “litigate patents on non-obvious advances excessively and patents on obvious advantages too infrequently” compounded by resultant incorrect legal outcomes. In fact, Mandel posits that “indeterminacy in the nonobviousness standard may be responsible for much of the variety and extent of problems

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21 S. REP. NO. 82-1979, at 2411 (1952) (“This paragraph is added with the view that an explicit statement in the statute may have some stabilizing effect.”).
22 See Mandel, *supra* note 8, at 71.
24 *Id.*
25 *Id.* at 108.
26 *Id.* at 62 (citing Fed. Trade Comm’n, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, ch. 4, at 6-7 (2003) (listing the consequences of indeterminacy in non-obviousness decisions as: an excessive total number of patent grants, and in many patent grants on obvious inventions; too many patent applications on obvious inventions and too few applications on non-obvious inventions; more patent litigation than is optimal and incorrect litigation outcomes; low incentives to research and develop great advances, and excessively high incentives to invest in mundane innovation); see also ROBERT MERGES & JOHN DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 646-47 (3d ed. 2002); Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1577, 1586 (2003).
27 Mandel, *supra* note 8, at 108.
perceived to be plaguing the patent system.”

This Note demands that the unsettled judicial inquiry for non-obviousness necessitates reform now. In line with Supreme Court directive, partial Federal Circuit initiative, and an overwhelming trend in the regional circuits, this Note proposes that a two-tiered judicial inquiry with special verdicts will properly uphold the Constitutional mandate in patent law, provide certainty and stability for district courts and litigants – namely inventive entities making large investments in research and development and provide society with the benefits they deserve from a properly policed patent system.

The benefits of reforming the non-obviousness judicial standard are multifold. The resultant consistency in instituting the standard as proposed by this Note would be manifest in the bestowed uniformity in the Patent Office and judicial system. In turn, the Federal Circuit would presumably be less likely to disturb decisions of the United States Patent and Trademark Office (PTO) and district courts. Certainty importantly provides “socially beneficial incentives for innovators deciding whether to research a particular area, file a patent application, or challenge a patent in litigation.” Accompanying predictability “protects the balance the Patent Act seeks to strike between the incentives of monopoly rights for inventors and society’s interest in an optimal public domain.” Furthermore, inventive industries across the spectrum – from those that support stronger patent protection (pharmaceutical and biotechnology industries) to those that are concerned about excessive patenting (information technology and financial industries) – will benefit from the resultant standardization of non-obviousness reform.

Cognizant of the implications attached to the non-obviousness standard of patentability, the Federal Circuit has emphasized that courts must implement a systematic approach to addressing the enumerated factual inquiries in a legal determination of obviousness. Judicial execution of this mandate, however, has failed and consequently raised uncertainty as to the respective roles of judge and jury.

28 Id. at 109.
29 Id. at 109-10.
30 Id. at 110; see Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 731 (2002) (noting clarity of patent rights promotes “the delicate balance the law attempts to maintain between inventors, who rely on the promise of the law to bring the invention forth, and the public, which should be encouraged to pursue innovations, creations, and new ideas beyond the inventor’s exclusive rights” (citing Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150 (1989))).
31 Mandel, supra note 8, at 127-28.
33 Corresponding resolution is of prime importance. “In patent cases particularly, the
The indeterminacy is grounded in the intertwining of law and fact in non-obviousness. Whether the conclusion of non-obviousness is to be treated as a question of law or a question of fact is a highly debated issue with important consequences attached to its ultimate resolution.

If the conclusion is one of fact, then a finding of obviousness or non-obviousness by a trial court would be insulated from appellate review unless "clearly erroneous" under the standard of Rule 52(a) of the Federal Rules of Civil Procedure, and the conclusion of obviousness would be appropriately submitted to a jury for resolution. On the other hand, if the conclusion is one of law, then the judge, not the jury, would decide the question of obviousness, and any such decision at the trial court level would be freely reviewable on appeal.

As there are arguably identifiable legal and factual components to the non-obviousness determination, an ancillary facet involves fashioning the role of the jury with due recognition to the firm roots in the U.S. legal system provided by the Seventh Amendment. The unique interplay of the Patent and Trademark Office, an administrative agency, requires additional considerations in defining the jury's role.

The import of this controversial and unsettled issue is epitomized by the recent petitions for writs of certiorari in Medela AG & Medela, Inc. v. Kinetic Concepts, Inc. and Acushnet Co. v. Callaway Golf Co. Medela petitioned the Supreme Court to hold that the determination of obviousness should be made by a judge rather than a lay jury. Trailing Medela's failure, Acushnet posed
that a jury verdict on the question of obviousness should be treated as advisory, obligating an independent legal conclusion by the judge. Both petitions present cogent argumentation that provides foundational support for the position advocated throughout this Note.

This Note proposes that the standard of review utilized in non-obviousness determinations must be reformed to a two-step standard of review to apportion respective roles of judge and jury. It is further proposed that the utilization of special verdicts on the underlying factual questions of non-obviousness will supplement effective review.

Part I presents an analysis of the circuit split prior to formation of the United States Court of Appeals for the Federal Circuit. Part II critiques the Federal Circuit’s present approach to non-obviousness. Part III provides a background analysis of the Seventh Amendment and administrative law principles in support of a preserved, yet refined, jury role in questions of non-obviousness. Part IV explicates the proposed two-step judicial inquiry to effectively reform non-obviousness determinations. Part V discusses the integration of special verdicts. This Note concludes that a two-tiered judicial inquiry in combination with special verdicts will properly allocate the decision-making power between the judge and jury, while effectuating Congressional directives in patent law and allowing for effective review on patent validity questions rooted in non-obviousness.

I. HISTORIC CIRCUIT SPLIT

The Patent Act of 1952 lists three conditions for patentability: utility, novelty, and non-obviousness. The non-obviousness requirement is a common law principle first recognized by the Supreme Court in *Hotchkiss v. Greenwood*, subsequently codified...
in the 1952 Patent Act,\textsuperscript{48} and judicially interpreted in \textit{Graham v. John Deere Co}.\textsuperscript{49}

The Supreme Court held that the ultimate question of patent validity, of which non-obviousness is the ultimate determinant,\textsuperscript{50} is one of law.\textsuperscript{51} However, the non-obvious requirement under 35 U.S.C. § 103 lends itself to several basic factual inquiries as defined by the \textit{Graham} Court. The four “background” factors, “against” which the legal conclusion of obviousness is drawn, are: 1) the scope and content of the prior art; 2) the differences between the prior art and the claimed invention; 3) the level of ordinary skill in the pertinent art; and 4) secondary considerations.\textsuperscript{52} Thus, non-obviousness is a question of law with underlying factual inquiries, presenting an inherent tension between the legal and factual nature of the judicial analysis.

Brief attention to the historical background embodied by the circuit split prior to the funneling of patent cases into the Federal Circuit is important for several reasons. It reflects the difficulty in developing a proper judicial inquiry to the mixed question of fact and law under § 103. It is also representative of various district court approaches to non-obviousness because of the Federal Circuit’s inconsistent precedent. Additionally, the Supreme Court considers circuit splits to be an influential indicator of patent cases warranting a grant of certiorari.\textsuperscript{53}

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\textsuperscript{48} 35 U.S.C. § 103 (2007). The test of obviousness is whether “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 which said subject matter pertains.”


\textsuperscript{50} Roberts v. Sears, Roebuck & Co., 723 F.2d 1324, 1335 (7th Cir. 1983).


\textsuperscript{52} See \textit{Graham}, 383 U.S. at 17; \textit{Panduit Corp. v. Dennison Mfg. Co.}, 810 F.2d 1561, 1567 (Fed. Cir. 1987) (Secondary considerations include commercial success due to the invention, long felt but unsolved needs, failure of others (see \textit{Graham}, 383 U.S. at 17-18), skepticism of experts (see \textit{U.S. v. Adams}, 383 U.S. at 52), and copying the invention in preference to the prior art (see \textit{Diamond Rubber Co. v. Consolidated Rubber Tire Co.}, 220 U.S. 428, 441 (1911))); see also \textit{Stratoflex, Inc. v. Aeroquip Corp.}, 713 F.2d 1530 (Fed. Cir. 1983) (noting that secondary considerations should be appraised in every case).

\textsuperscript{53} See \textit{Holmes Grp., Inc. v. Vornado Air Circulation Sys., Inc.}, 535 U.S. 826, 839 (2002) (Stevens, J., concurring) (noting that a “conflict in [circuit decisions on patent law issues] may be useful in identifying questions that merit this Court’s attention”). Stevens also recognized why a circuit split is important to the Federal Circuit: “decisions by courts with broader jurisdiction will provide an antidote to the risk that the specialized court may develop an institutional bias.” \textit{Id.}
A. Question of Law: 2nd, 3rd, 6th, 7th, 8th, 9th, 11th

Previous to the centralization of federal patent law civil actions in the Court of Appeals for the Federal Circuit, the Seventh and Ninth Circuits both held that judges must independently make the legal determination of obviousness based on the factual record. The Seventh Circuit held that the “trial court abdicated its control over the legal issue” in “asking the jury to pass upon the ultimate legal question . . . [and] impermissibly allowed the jury to be the final arbiter of the legal issue of patent validity.” Furthermore, the Seventh Circuit advocated that special verdicts should be utilized to resolve the factual issues subsidiary to the legal question of obviousness. Similarly, the Ninth Circuit held that “the court must, in all cases, determine obviousness as a question of law independent of the jury’s conclusion” [cautioning that] [c]onstitutional standards of patentability must not be evaded by improper fact finding.

In *Flour City Architectural Metals v. Alpana Aluminum Prod.*, the Eighth Circuit dissected Supreme Court precedent to resolve its own intra-circuit split and ultimately established non-obviousness

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55 See Roberts v. Sears, Roebuck & Co., 723 F.2d 1324, 1341-44 (7th Cir. 1983) (en banc); Sarkisian v. Winn-Proof Corp., 688 F.2d 647, 651 (9th Cir. 1982) (en banc) (per curiam) (“The court must, in all cases, determine obviousness as a question of law independent of the jury’s conclusion.”).

56 Roberts, 723 F.2d at 1342-43; see generally Dickey-john Corp. v. Int’l Tapetronics Corp., 710 F.2d 329 (7th Cir. 1983); Dual Mfg. & Eng’g, Inc. v. Burris Indus., 619 F.2d 660 (7th Cir. 1980) (viewing obviousness as a question of law that rests upon the tripartite factual inquiry set forth in *Graham*).

57 Dual Mfg., 619 F.2d at 667.

58 Sarkisian, 688 F.2d at 651. See also Hensley Equip. Co. v. Esco Corp., 375 F.2d 432, 436 (9th Cir. 1967); M.O.S. Corp. v. John I. Haas Co., 375 F.2d 614 (9th Cir. 1967); Nat’l Lead Co. v. W. Lead Prod. Co., 291 F.2d 447, 450-51 (9th Cir. 1961).

59 Sarkisian, 688 F.2d at 651.

60 454 F.2d 98 (8th Cir. 1972).

61 The Supreme Court overturned its earlier decision holding non-obviousness to be a question of fact in Graver Tank & Mfg. Co. v. Linde Air Prod. Co., 336 U.S. 271, 275 (1949) (stating that the Court will not disturb a finding of invention made by two courts below “in the absence of a very obvious and exceptional showing of error.”). See Great Atlantic & Pacific Tea Col v. Supermarket Equip. Corp., 340 U.S. 147, 155-56 (1950) (The *Graver* rule “never had a place in patent law… and is now in substance rejected.” The Court held that the “standard of invention” is a question of patent validity which the Court must decide); see also Anderson’s Black Rock v. Pavement Salvage Co., 396 U.S. 57 (1969) (illustrating the Court’s independent review of non-obviousness, unrestrained by Rule 52(a)); Calmar, Inc. v. Cook Chem. Co., 383 U.S. 1 (1966); United States v. Adams, 383 U.S. 59 (1966).

62 Several decisions in the 8th Circuit treated non-obviousness as a question of fact subject to review under Rule 52(a). See Gallo v. Norris Dispensers, Inc., 445 F.2d 649 (8th Cir. 1971); Kell-Dot Industries, Inc. v. Graves, 361 F.2d 25 (8th Cir. 1966); American Infra-Red Radiant Co. v. Lambert Indus. Inc., 360 F.2d 977, 988 n.4 (8th Cir. 1966); Automated Building Components, Inc. v. Hydro-Air Eng’g, Inc., 362 F.2d 989 (8th Cir. 1966). Other decisions in the 8th Circuit treated non-obviousness as a question of law subject to
to be a question of law. Furthermore, although holding the denial of a request for special interrogatories not to be a reversible error, the Eighth Circuit expressed that the use of interrogatories and special verdicts may reveal the basis for the verdict and correspondingly relieve the court of the responsibility of reviewing every possible basis for the jury’s verdict.

The Second, Third, and Eleventh Circuits held the ultimate decision of non-obviousness to be one of law that is freely reviewable by the appellate court. The Sixth Circuit denotes the Graham factors as findings of fact that are binding on appeal unless clearly erroneous, while declaring the ultimate determination of non-obviousness to be a conclusion of law for the judge to resolve based on the established findings of fact.

B. Question of Fact: 1st, 10th

The Tenth Circuit takes a different approach in holding patent validity to be a question of law, and non-obviousness to be a question of fact. Accordingly, the court allows the question of independent evaluation upon appeal. See Ralston Purina Co. v. Gen. Foods Corp., 442 F.2d 389 (8th Cir. 1971); Agrashell, Inc. v. Hammon Prod. Co., 413 F.2d 89 (8th Cir. 1969); Skee-Trainee, Inc. v. Gallagher Mfg. Co., 361 F.2d 895 (8th Cir. 1966); Piel Mfg. Co. v. George A. Rolfs Co., 363 F.2d 57 (8th Cir. 1966); L & A Prod., Inc. v. Brit Tech Corp., 365 F.2d 83 (8th Cir. 1966).

See Flour City, 454 F.2d at 106 (“Following these examples set by the Supreme Court, we are constrained to review the ultimate question of obviousness vel non as a matter of law, not fact.”).


See Shackleton v. J Kaufman Iron Works, Inc., 689 F.2d 334 (2d Cir. 1982); Philip v. Mayer, Rothkopf Indus., Inc., 635 F.2d 1056, 1061 (2d Cir. 1980); Julie Research Lab., Inc. v. Guildine Instruments, Inc., 501 F.2d 1151, 1153-56 (2d Cir. 1974); see also Lemelson v. Topper Corp., 450 F.2d 845 (2d Cir. 1971); Shaw v. E.B. & A.C. Whiting Co., 417 F.2d 1097 (2d Cir. 1969); Watsco, Inc. v. Henny Valve Co., 404 F.2d 1104 (2d Cir. 1968); Taylor Wine Co. v. Celmer, 397 F.2d 784 (2d Cir. 1968).

See Hadco Prods. Inc. v. Walter Kidde & Co., 462 F.2d 1265, 1268 (3d Cir. 1972) (holding that factual issues are governed by the clearly erroneous standard of Rule 52(a) but “the ultimate question of patent validity, including a determination of the obviousness or non-obviousness of the subject matter of a patent is” a question of law “reviewable free of the clearly erroneous test”); see also Systematic Tool & Mach. Co. v. Walter Kidde & Co., 555 F.2d 342 (3d Cir. 1977); Minnesota Mining & Mfg. Co. v. Berwick Indus., Inc., 532 F.2d 330 (3d Cir. 1976); Packwood v. Briggs & Stratton Corp., 195 F.2d 971 (3d Cir. 1952).


This approach is similar to the one advocated in this note. See Kolene Corp. v. Motor City Metal Treating, Inc., 440 F.2d 77, 81 (6th Cir. 1971); see also Kwik-Site Corp. v. Clear View Mfg. Co., 758 F.2d 167 (6th Cir. 1985); TWM Mfg. Co., Inc. v. Dura Corp., 722 F.2d 1261 (6th Cir. 1983); Kaiser Indus. v. McLouth Steel Corp., 400 F.2d 36, 41 (6th Cir. 1968) (holding the question of ‘obviousness’ in determining patent validity to be a mixed question of fact and law); Monroe Auto Equip. Co. v. Heckethorn Mfg. & Sup. Co., 332 F.2d 406 (6th Cir. 1964).


In every patent infringement suit a court is called upon to oversee obedience to...
obviousness to be submitted to the jury and limits judicial review to determining whether the verdict was supported by substantial evidence.70 However, Rutter v. Williams71 illustrates a vacillation in Tenth Circuit precedent where the court held that is was not bound by the trial court’s conclusion of law.72

The First Circuit joins the Tenth Circuit in treating obviousness as a question of fact subject to a deferential standard of review.73 The First Circuit recognizes patent validity to be a question of law,74 but emphasizes that the highly factual context of a determination of §103 obviousness without a meaningful way of separating the factual and legal components75 justifies placement as a question of fact.

C. Intra-Circuit Splits: 4th, 5th, D.C.

There appears to be an intra-circuit split in the Fifth Circuit. In Control Components, Inc. v. Valtek, Inc.,76 the Fifth Circuit instructed jurors on the law of obviousness and upon subsequent review, the court assumed that the jury “made implicit findings on each underlying factual inquiry,” finding “support [in] substantial evidence” to affirm the jury’s verdict.77

In dissent, Judge Rubin critically characterized the majority’s position as “a step further into the Serbonian bog that threatens to engulf patent litigation.”78 Further, on dissent from denial of an en banc rehearing, Judge Brown, speaking for three other judges, articulated the jury’s general verdict on the obviousness issue to be inconsistent with Graham’s holding that patent validity is a question of law.79

The constitutional standard [of patentability]. It cannot be delegated to the jury on the supposition that only a question of fact is involved. Factual assessments are, of course, part of the process of judging validity. . . . But the determination whether the patentee’s distinctive contribution is of such a character as to justify the 17-year monopoly is one that demands reasoned elaboration and therefore, treatment as a question of law.


70 Norfin, 625 F.2d 357.
71 541 F.2d 878 (10th Cir. 1976).
72 Id.
73 See Koppers Co. v. Foster Grant, 396 F.2d 370, 372 (1st Cir. 1968) (“[A]lthough, within limits, a question of law, the determination whether a discovery of a new combination is or is not obvious must be a question of fact.”); see also Rosen v. Lawson-Hemphill, Inc., 549 F.2d 205, 209 (1st Cir. 1976) (“In this circuit, the question of obviousness vel non is essentially one of fact. . . .”)
74 See Scully Signal Co. v. Elec. Corp. of Am., 570 F.2d 355 (1st Cir. 1977).
75 See Forbro Design Corp. v. Raytheon Co., 552 F.2d 758, 763 (1st Cir. 1977).
76 609 F.2d 763 (5th Cir. 1980), reh’g denied, 616 F.2d 892, cert. denied, 449 U.S. 1022 (1980).
77 Control Components, 609 F.2d at 768-69.
78 Id. at 774.
79 Id. at 892 (citing Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17 (1966)). See also Swofford v. B & W, Inc., 395 F.2d 362 (5th Cir. 1968) (reviewing the Supreme Court directive in Graham to conclude that obviousness is a question of law).
Two years later, in *Baumstimler v. Rankin*, a unanimous panel found Judge Rubin’s *Control Components* dissent to be “cogent and convincing.” The *Baumstimler* Court held that if the issue of obviousness were to be tried by a jury, special interrogatories should be utilized in addressing the factual predicates of obviousness.

The District of Columbia Circuit also embodies conflicting approaches. Some decisions hold the ‘clearly erroneous’ standard of Rule 52(a) to govern appellate review, effectively treating the non-obviousness question as one of fact. Others hold the standard of obviousness to be a question of law, answered in light of underlying facts.

The question appears to be unsettled in the Fourth Circuit where patent validity is held to be a question of law, but appellate deference to obviousness conclusions has been expressed.

**D. Supreme Court Guidance**

The Supreme Court in *KSR Int’l Co. v. Teleflex* described obviousness as “a legal determination” to be made by “a court, or patent examiner.” *KSR* also instructed that “this analysis should be made explicit” so as “[t]o facilitate review.” Juxtaposed with *Graham*’s holding patent validity to be a question law, one could draw a precedential directive supporting the notion that non-obviousness is a question of law. In fact, *KSR*’s reaffirmance that non-obviousness is a matter of law yields a strong invitation for the Federal Circuit to shape post-*KSR* non-obviousness law.

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80 677 F.2d 1061 (5th Cir. 1982).
81 See *Baumstimler*, 677 F.2d at 1071-72; see also *Nat’l Filters, Inc. v. Research Prod. Corp.*, 384 F.2d 516 (5th Cir. 1967) (holding the obviousness inquiry in patent validity to be a mixed question of fact and law).
82 *Comm’r of Patents v. Deutsche Gold-und-Silber-Scheideanstalt*, 397 F.2d 656, 661 n.12 (D.C. Cir. 1968).
83 *Int’l Salt Co. v. Comm’r of Patents*, 436 F.2d 126, 129 (D.C. Cir. 1970) (citing *Highley v. Brenner*, 387 F.2d 855, 857 (D.C. Cir. 1967) (“What the prior art is and what the claimed invention is are questions of fact. However, whether the standard of obviousness applied to those facts is correct, is a question of law.”)).
85 *See Deering Milliken Research Corp. v. Beaunit Corp.*, 538 F.2d 1022, 1025 (4th Cir. 1972); *see also* *Harrington Mfg. Co. v. Taylor Tobacco Enters.*, 664 F.2d 938, 939 (4th Cir. 1981).
89 Id. at 418.
II. THE FEDERAL CIRCUIT’S APPROACH TO NON-OBSVIOUSNESS

There are two fundamental criticisms of the Federal Circuit’s current approach to non-obviousness determinations under §103: 1) the current standard of review effectively treats the legal question of obviousness as a question of fact, and 2) the general verdict framework precludes effective review of a jury’s factual findings.

A. Inconsistency in the Federal Circuit

The Court of Appeals for the Federal Circuit has exclusive jurisdiction over all patent appeals and has been referred to as the “Supreme Court of patent law.”

Following the standard of its predecessor courts, the Court of Claims and the Court of Customs and Patent Appeals, the Federal Circuit has asserted that “obviousness is a legal conclusion based on factual determinations and not a factual determination itself,” warranting a corresponding “de novo” appellate review of district court decisions on obviousness. Illustratively, in Panduit Corp. v. Dennison Mfg. Co., the Federal Circuit interpreted Graham as iterating “that one answering the § 103 question is drawing a legal conclusion.”

Supreme Court left intact the plenary review power that has allowed the Federal Circuit to reshape obviousness doctrine over the years.)

94 McNeil-PPC 337 F.3d at1368 (“When reviewing a district court’s decision, we review a district court’s underlying findings of fact for clear error, while we rule de novo on the ultimate issue of obviousness.”); Eli Lilly & Co. v. Bd. of Regents of the Univ. of Washington, 334 F.3d 1264, 1267 (Fed. Cir. 2003) (“This court reviews the legal conclusion of obviousness without deference.”); Oakley, Inc. v. Sunglass Hut Int’l, 316 F.3d 1331, 1339 (Fed. Cir. 2003) (“We review a district court’s underlying findings of fact for clear error, while we rule de novo on the ultimate issue of obviousness.”); Ruiz v. A.B. Chance Co., 234 F.3d 654, 663 (Fed. Cir. 2000) (“We review the ultimate determination of obviousness de novo, while the underlying factual inquiries are reviewed for clear error.”); Yamanouchi Pharm. Co., Ltd. v. Danbury Pharmacal, Inc., 231 F.3d 1339, 1345 (Fed. Cir. 2000) (“This court reviews the conclusion on obviousness, a question of law, without deference, and the underlying findings of fact for clear error.”).
95 Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1567-68 (Fed. Cir. 1987) (“A determination that an invention would have been obvious when it was made to one of ordinary skill in the art under § 103 is thus a conclusion of law based on fact.”). See also Para-Ordnance Mfg., Inc. v. SGS Imp. Int’l, Inc., 73 F.3d 1085, 1088 (Fed. Cir. 1995); Stiftung v. Renishaw PLC, 945 F.2d 1173, 1182 (Fed. Cir. 1991).
However, the Federal Circuit’s inconsistent approach to the question of non-obviousness fails to support its own precedent.96 Dissenting in In re Lockwood, Judge Nies called attention to the Federal Circuit’s irreconcilable approach to review of jury verdicts on non-obviousness.97

Exhibiting the conflicted and unsettled state of non-obviousness law in the Federal Circuit, the court has also postulated that juries can render verdicts – in the form of “yes” or “no” – on the question of patent validity under § 103, precluding independent judicial determination.98 The court in Connell v. Sears, Roebuck & Co.,99 held that it was without error to submit the legal question of obviousness to the jury. Cementing the circuitous divide, the Federal Circuit described the Ninth Circuit approach as a “discredited procedure of advisory verdicts.”100

Additionally demonstrative of the precedential inconsistency, in some decisions, the Federal Circuit employs a highly deferential standard of review by assessing implicit factual determinations101 in a general verdict only for substantial evidence, and presuming all factual disputes were resolved in favor of the verdict.102 This

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97 In re Lockwood, 50 F.3d 966, 989 (Fed. Cir. 1995) (Nies, J., dissenting) (Some panel opinions speak of de novo review after accepting the presumed findings of fact, others reject the de novo standard, and still others conflate the standard to whether a “reasonable” jury could reach the verdict it rendered). Judge Newman of the Federal Circuit concedes that “Non-obviousness is fuzzy ground. It’s hard to decide, difficult to administer, even harder to set.” See FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, 4(13) (2003).


99 Connell, 722 F.2d 1542 (affirming the jury’s role in making the ultimate legal determination of a patent’s validity with justification of the judge’s control over the legal issue in motions for judgment as a matter of law and motions for a new trial).

100 Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1234 (Fed. Cir. 1989); see also Perkin-Elmer, 732 F.2d at 895 n.5.

101 See LNP Eng’g Plastics, Inc. v. Miller Waste Mills, Inc., 275 F.3d 1347, 1353 (Fed. Cir. 2001) (“This court reviews a jury’s conclusion on obviousness, a question of law, without deference, and the underlying findings of fact, whether explicit or implicit within the verdict, for substantial evidence.”); Upjohn Co. v. Mova Pharm. Corp., 225 F.3d 1306, 1310 (Fed. Cir. 2000) (“Where...the jury made no explicit factual findings regarding obviousness, we must determine whether the implicit findings necessary to support the verdict are supported by substantial evidence.”); See generally In re Zurko, 258 F.3d 1379, 1384 (Fed. Cir. 2001) (“The substantial evidence standard has been analogized to the review of jury findings, and it is generally considered to be more deferential than the clearly erroneous standard of review.”).

102 See Kinetic Concepts, Inc. v. Blue Sky Med. Group, Inc., 554 F.3d 1010 (Fed. Cir. 2009); McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351 (Fed. Cir. 2001) (characterizing Federal Circuit precedential appellate review of a jury’s verdict on the ultimate question of obviousness as “re-creating the facts as they may have been found by the jury,” and determining whether such hypothetical facts would be sufficient to support a legal conclusion of validity on any theory); Jurgens v. McKasy, 927 F.2d 1552, 1557 (Fed. Cir. 1991).
methodology effectively eliminates any independent judicial determination,\textsuperscript{103} a judicial approach that is mandated by other Federal Circuit precedent.

B. Current Approach in the Federal Circuit

In the recent case, \textit{Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc.}, the district court applied Federal Circuit precedent finding sufficient evidence to uphold the jury’s general verdict on obviousness.\textsuperscript{104} Likewise, on appeal, the Federal Circuit reviewed the jury’s general verdict by assuming factual findings to find substantial evidence to support the jury’s decision on obviousness.\textsuperscript{105} This case is reflective of modern Federal Circuit methodology to the judicial inquiry of non-obviousness that eliminates independent judicial review, effectively transforming it to a question of fact.

Similarly, in \textit{Callaway Golf Co. v. Acushnet Co.}, the Federal Circuit agreed with the district court that, “when viewed in the light most favorable to the verdict, the jury could have reasonably concluded that [petitioner] failed to prove invalidity due to obviousness.”\textsuperscript{106}

As utilized in \textit{Kinetic Concepts} and \textit{Callaway Golf}, “the approach of reviewing ‘in a light most favorable to the verdict’ and deciding what ‘the jury could have reasonably concluded’ represents how courts review jury factual findings, not how the courts draw legal conclusions from established facts.”\textsuperscript{107} These cases are reflective of 2009 Federal Circuit precedent, and evoked petitions for certiorari requesting that the Supreme Court resolve inconsistent Federal Circuit precedent by mandating an independent judicial determination on the question of non-obviousness underlying patent validity,\textsuperscript{108} as is required by the framework for a question of law.

C. Criticism of the Federal Circuit’s Current Approach

Federal Circuit treatment of non-obviousness as a question of

\textsuperscript{103} Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 895 (Fed. Cir. 1984).


\textsuperscript{105} Kinetic Concepts, 554 F.3d at 1021, citing Federal Circuit precedent for this approach. See \textit{LNP Eng’g Plastics}, 275 F.3d at 1353 (characterizing review as, “whether explicit or implicit within the verdict, for substantial evidence”); see also Grp. One, Ltd. v. Hallmark Cards, Inc., 407 F.3d 1297, 1304 (Fed. Cir. 2005) (“In re-creating the facts as they may have been found by the jury . . . we assess the evidence in the light most favorable to the verdict winner.”) (quoting \textit{McGinley}, 262 F.3d at 1351).

\textsuperscript{106} Callaway Golf Co. v. Acushnet Co., 576 F.3d 1331, 1339 (2009).


fact through its cursory review of what a reasonable jury might decide and its assumptions of implicit factual findings is an incorrect — though customary — approach to a question of law. This approach precludes satisfactory review of the verdict and “effectively positions validity as a question for the jury, not one of law for the judge.”

As non-obviousness is held to be a question of law by the Federal Circuit and the Supreme Court, there can be no jury “finding” on non-obviousness, and judicial review should not be truncated under the standard of “substantial evidence.”

A “substantial evidence” standard of review is only applicable to the underlying issues of fact when reviewing the ultimate legal issue of validity under § 103. The current Federal Circuit approach reflects inappropriate deference to the jury’s ultimate determination of a legal issue and abdication of the judge’s role in determining questions of law. Furthermore, a black box verdict — the “yes” or “no” jury verdict answer — conceals the jury’s reasoning and analysis in reaching its verdict and thereby “thwarts effective review.”

Moreover, the Federal Circuit’s stipulated jury control seemingly runs counter to articulated Supreme Court policy encouraging “express” findings and reasoning in conjunction with “uniformity and definiteness” in conclusions and application of
obviousness law.\textsuperscript{117}

The resultant unpredictable and unreviewable jury decisions coming out of current patent cases has been skeptically defined as “clash[ing] with [the] fundamental premise . . . [in] creating the Federal Circuit . . . [for] nationwide uniformity in patent law.”\textsuperscript{118}

Scholars caution that if “the application of basic doctrines of patent law are subsumed within jury verdicts, particularly general verdicts, uniformity, predictability, and doctrinal stability could easily become hollow shells within which juries could do as they wished.”\textsuperscript{119}

The Supreme Court’s grant of certiorari in \textit{American Airlines, Inc. v. Lockwood}\textsuperscript{120} underscores the need to determine the proper role of juries in patent cases. Dissenting from the denial of rehearing en banc, Judge Nies expressed that the conflict between Federal Circuit and regional circuit precedent “warrants Supreme Court review.”\textsuperscript{121}

At the district court level, there exists an unresolved tension as courts continue to grapple with the problem of allocating the decision-making responsibility between judges and juries without clear guidance from the Federal Circuit. In the Federal Circuit, inconsistent precedent creates instability and uncertainty in patent litigation. This discrepancy is amplified by the Federal Circuit’s current trend in non-obviousness that clashes with vast regional circuit support and Supreme Court directive holding § 103 to be a question of law. This Note maintains that potential resolution can be found through a two-tiered judicial inquiry and in the crafting of jury pattern instructions\textsuperscript{122} through the utilization of special verdicts.\textsuperscript{123}

\begin{footnotesize}
\begin{enumerate}
\item[119] Littman, supra note 118, at 210.
\item[120] 515 U.S. 1121 (1995). The grant of certiorari was vacated when the patentee withdrew his jury demand and moved for dismissal of the Supreme Court case as moot.
\item[121] In re Lockwood, 50 F.3d 866 (Fed. Cir. 1995).
\item[123] FED. R. CIV. P. 49(a) (“The court may require a jury to return only a special verdict in the form of a special written finding on each issue of fact.”).
\end{enumerate}
\end{footnotesize}
III. THE JURY’S ROLE IN NON-OBSVIOUSNESS

A. Seventh Amendment and Patent Law

The proper foundation for analyzing the appropriate scope of the jury’s role in the non-obviousness inquiry of patentability rests in the Seventh Amendment of the U.S. Constitution. The Seventh Amendment provides the right to a jury trial. In determining whether or not a jury right exists, the Court will look to see whether that right existed at English common law in 1791, when the Seventh Amendment was ratified.

Historically, questions of patentability have been tried to juries since the enactment of the first U.S. patent law in 1790. As time has evidenced, the amount of patent trials before juries has greatly increased, making it increasingly important to define the jury’s role in patent litigation. In *Markman v. Westview Instruments, Inc.*, the Supreme Court adopted (former patent practitioner) Justice Curtis’s classification of the two elements of a patent case in holding claim construction to be within the court’s province while designating the question of infringement as requiring a jury trial.

The Supreme Court has noted that the Constitution does not mandate every specific issue relating to patent validity be tried to a jury. The Federal Circuit has also noted that given the “public right” pedigree of patent validity, there is no absolute constitutional bar to independent judicial (rather than jury) resolution of obviousness. *Markman* advised that when

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124 U.S. CONST. amend. VII (“In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved ….”).
128 See *Markman*, 517 U.S. at 384 n.11 (citing Winans v. Denmead, 56 U.S. 330, 338 (1853) (“The first [constructing the patent] is a question of law, to be determined by the court. The second [determining whether infringement occurred] is a question of fact, to be submitted to a jury.”)).
129 See Granfinanciera, S.A. v. Nordberg, 492 U.S. 33, 42 n.4, 51 (1989) (“[T]he Seventh Amendment does not entitle the parties to a jury trial” on issues of public rights.); Ross v. Bernhard, 396 U.S. 531, 538 (1970) (“The Seventh Amendment question depends on the nature of the issue to be tried rather than the character of the overall action.”); Murray’s Lessee v. Hoboken Land & Improvement Co., 59 U.S. (18 How.) 272, 284 (1855). But see *Markman*, 517 U.S. at 377 (“[T]here is no dispute that infringement cases today must be tried to a jury, as their predecessors were more than two centuries ago.”).
130 See *Zoltek Corp. v. United States*, 442 F.3d 1345, 1352 (Fed. Cir. 2006) (“[P]atent rights are a creature of federal law.”); *Patlex Corp. v. Mosinghoff*, 738 F.2d 594, 604 (Fed. Cir. 1985) (A patent is “a right that can only be conferred by the government.”).
131 In *re Lockwood*, 50 F.3d 966, 983 (Fed. Cir. 1995) (Nies, C.J.) (emphasizing that a patent is a public right created by Congress and “[a] constitutional jury right to determine validity of a patent does not attach to this public grant”); see also Brief for Intel et al. as Amici Curiae Supporting Petitioners, Medela AG & Medela, Inc. v. Kinetic Concepts, Inc.,
uniformity in a body of law is an important value and no constitutional jury-trial right is implicated, the law can provide for initial resolution by trial judges and de novo review by appellate judges. However, the Federal Circuit has also recognized that the Seventh Amendment does extend the right to a jury trial for questions of validity. Furthermore, the Federal Circuit has ruled that no “complexity exception” exists to a litigant’s Seventh Amendment right to a jury trial in patent actions. Notably, however, the question of patent validity implicates analysis of issues of both law and fact, i.e. non-obviousness, requiring tailored confinement of the jury’s recognized role to questions of fact.

B. Patent and Trademark Office and Administrative Law

As the Graham framework raises difficult questions about the relationship between the Federal Circuit and lower courts, it also raises similar situational problems between the Federal Circuit and the United States Patent and Trademark Office with respect to judicial review of obviousness determinations.

Principles of administrative law also support a limited role for the jury on the question of obviousness, one with great oversight and independent legal analysis reserved in the judge. The grant of a patent “represents a legal conclusion reached by the Patent [and Trademark] Office” that is presumed to be valid. “Throughout the obviousness determination, a patent retains its

132 Markman, 517 U.S. at 390-91 (emphasizing “the importance of uniformity” as “an independent reason to allocate all issues of construction to the court” and observing that “uniformity would . . . be ill-served by submitting issues of document construction to juries”).
133 See In re SGS-Thomson Microelectronics, Inc., 1995 U.S. App. LEXIS 10017 (Fed. Cir. 1995) (holding a right to a jury on validity and infringement issues); In re Lockwood, 50 F.3d at 980 (likening patent validity to patent infringement in recognizing the right to a jury trial under the Seventh Amendment on the question of validity); but see In re Lockwood, 50 F.3d at 980-81 (Nies, J., dissenting) (rejecting the majority’s conception of a right to a jury trial on issues of patent validity); Paltex Corp., 758 F.2d at 603 (recognizing that the Seventh Amendment protects the right to a jury trial on patent validity issues).
134 See SRI Int’l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1127 (Fed. Cir. 1985) (noting that one federal appellate court and three federal district courts have remanded or struck jury demands in “complex” civil cases, relying on a judge-created “complexity exception” despite the clear directive of the Seventh Amendment that “the right to jury trial shall be preserved”).
statutory presumption of validity.” The Patent and Trademark Office (PTO) is an administrative agency and the Supreme Court has stated that the validity of an administrative agency’s action is a matter for a court’s independent judgment.

In Cox v. United States, defendants raised the invalidity of an administrative order as a defense in a criminal proceeding. The plurality opined that “the constitutional right to jury trial does not include the right to have a jury pass on the validity of an administrative order.” A majority was acquired for the proposition that the validity of an administrative order “is properly one of law for the Court.”

Construing the import of Cox, prominent legal commentators avow that challenges to the validity of an administrative order should be withheld from the jury. Furthermore, empirical proof has been proffered that juries, jaded with a pro-patentee bias, are reluctant to ignore the imprimatur of the government on the issuance of the public right afforded through a patent.

Therefore, placing the question of patent validity within the sole province of the jury without independent judicial determination permits a lay jury to overturn the decision of an administrative agency and insulates PTO agency actions from effective judicial review. Importantly, treating non-obviousness as a question of law – with a step for independent judicial determination by the court – facilitates consistent application of § 103 in the courts and in the PTO.

IV. REFORMED JUDICIAL INQUIRY UNDER § 103

Illustrative of the need for reform, Acushnet requests that the Supreme Court institute a two-tiered judicial inquiry for non-obviousness wherein: (1) the court first reviews a jury’s underlying factual findings for substantial evidence, and (2) independently decides the ultimate legal conclusion based on the jury findings.

140 Rockwell Int’l Corp. v. United States, 147 F.3d 1358, 1364 (Fed. Cir. 1998).
141 See Cox v. United States, 332 U.S. 442, 453-55 (1947) (Justice Reed speaking for a plurality noted that “[t]he concept of a jury passing independently on an issue previously determined by an administrative body or reviewing the action of an administrative body is contrary to settled federal administrative practice.” Acquiring a majority, Reed further asserts that the validity of an administrative order “is properly one of law for the Court.”).
142 332 U.S. 442.
143 Id. at 453.
144 Id. at 455.
145 See KENNETH CULP DAVIS, ADMINISTRATIVE LAW TREATISE § 8.16, at 597 (West 1958) (where the invalidity of an administrative order is brought as a defense, the court “should withhold from the jury the validity of the order”); see also LOUIS L. JAFFE, JUDICIAL CONTROL OF ADMINISTRATIVE ACTION 394 (Little Brown 1965) (reserving “the validity of the order” to the court).
The current Federal Circuit approach fails to maintain the critical distinction between reviewing a jury’s factual findings and independently deciding the ultimate legal conclusion, thereby eliminating an independent judicial decision on the ultimate question of validity as mandated by KSR and Graham. Drawing from Federal Circuit precedent, Acushnet’s two-step process proposal for prescribing the proper judicial inquiry under § 103 properly delineates treatment of the Graham factual inquiries and the ultimate legal determination of validity with respective roles for judge and jury.

The first step recognizes the role of the jury and requires the court to review the jury’s factual findings on the Graham factors for substantial evidence. The second step – neglected by the current Federal Circuit approach – apports the role of the judge by mandating that the court render its own legal conclusion based on the facts established by the jury’s supported findings.

The jury’s findings on the predicate Graham factors in the first step should be reviewed under the appropriate standard for findings of fact – for support by substantial evidence. They are not, however, dispositive of the ultimate legal conclusion as the Federal Circuit currently holds them to be.

The second step defines the judge’s role to comport with precedential authority holding non-obviousness to be a question of law. It thereby corrects the Federal Circuit’s error in allowing the jury’s legal conclusion to be insulated from independent judicial review with the requirement that the reviewing court draw its own legal conclusion from the established facts, no matter how the jury itself decided the invalidity issue.

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149 See Panduit Corp., 810 F.2d at 1566-69 (Holding that the § 103 inquiry requires resolving any disputes on the underlying factual issues and then making the separate legal conclusion on the ultimate invalidity issue.).
150 See Panduit Corp., 810 F.2d at 1569 (“Rule 52(a) is applicable to all findings on the four inquiries listed in Graham.”); Dennison Mfg. Co. v. Panduit Corp., 475 U.S. 809, 810-11 (1986) (holding that underlying factual findings are subject to deferential review).
151 In Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc., 554 F.3d 1010 (Fed. Cir. 2009) and Fresenius USA, Inc. v. Baxter Int’l, Inc., 582 F.3d 1288 (Fed. Cir. 2009) the Federal Circuit only looked at one Graham factor. But see Panduit Corp., 810 F.2d at 1569-71 (The Federal Circuit held that all probative facts must be considered before a court renders its ultimate legal conclusion.).
152 See sources cited supra notes 92, 93.
153 Earlier Federal Circuit decisions recognized such a role for the court. See, e.g., Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 1479 (Fed Cir. 1997) (“That an obviousness determination stands upon the relevant facts does not convert the ultimate conclusion of obviousness from one of law into one of fact.”); Newell Co., Inc. v. Kenney Mfg. Col, 864 F.2d 757, 763 (Fed. Cir. 1988) (“[I]t is not the function of the jury to pick and choose among established facts relating to obviousness in contrast to its obligation to sift through the conflicting evidence to determine what those facts are.”) (emphasis in original); R.R. Dynamics, Inc. v. A. Stucki Co., 727 F.2d 1506, 1515 (Fed. Cir. 1984).
A critical distinction to be noted in the two tiers is that the jury’s factual findings are assigned deference, while the jury’s ultimate legal conclusion on §103 is not. The lack of deference in the second step reflects the appropriate allocation of decision-making power between the jury and judge. Put another way, the jury’s ultimate legal conclusion on non-obviousness can be viewed as advisory in obliging the judge to render its own legal assessment.

V. SPECIAL VERDICTS: A SOLUTION TO THE BLACK BOX OF § 103

A. Four Possible Verdict Forms

The Federal Rules of Civil Procedure provide four possible types of verdict forms: 1) general verdict, 2) general verdict with interrogatories, 3) special verdict, and 4) advisory verdict. The first two options charge the jury with the ultimate conclusion of non-obviousness with the resultant decision being binding on the court. The third option, the special verdict, directs the jury to determine only the factual inquiries relevant to the Graham analysis. Last, the advisory verdict would entrust the jury with making a non-binding determination on the ultimate question of non-obviousness.

General verdicts represent the quintessential “black box” ("[T]he judge must remain the ultimate arbiter on the question of obviousness.").

154 Only subsidiary factual findings are subject to the clear and convincing evidence standard, because an evidentiary burden of proof has no applicability to a question of law. See Daralyn J. Durie, Mark A. Lemley, A Realistic Approach to the Obviousness of Inventions, 50 WM. & MAR. L. REV. 989, 1014 (2008) (citing Joshua D. Sarnoff, Bilcare, KSR, Presumptions of Validity, Preliminary Relief, and Obviousness in Patent Law, 25 CARDOZO ARTS & ENT. L.J. 995, 1001-02 (2008)).

155 A special verdict is a “special finding of the facts of a case by a jury, leaving to the court the application of the law to the facts thus found.” BLACK’S LAW DICTIONARY 1560 (6th ed. 1990).

156 FED. R. CIV. P. 49(b).
157 FED. R. CIV. P. 49(a).
158 FED. R. CIV. P. 39(c).
160 Id.
161 Id.
162 Although expressing disfavor, the Federal Circuit has stated that a jury may return a “naked general verdict” just like in any other civil suit. See Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1546 (Fed. Cir. 1983). But see Am. Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1357-61 (Fed. Cir. 1984) (recognizing that the form of jury verdict is normally within the discretion of the trial court, but still criticizing the trial court for submitting the question of obviousness as a general verdict and suggesting that the “failure to utilize [special interrogatories or special verdicts] in patent cases” may be an abuse of the trial court’s discretion) (quoting Baumstimler v. Rankin, 677 F.2d 1061, 1071-72 (5th Cir. 1982)).
163 Moore, supra note 126, at 213.
in providing a practically unreviewable legal conclusion that invites a highly deferential standard of review.

When presented with a naked general verdict involving mixed issues of law and fact or the application of law to face, an erroneous verdict may be effectively unreviewable because it is impossible to unscramble the issues of law from the issues of fact in order to analyze and assess whether the decisions of the jury was both legally correct and based upon non-reversible factual findings.164

Supporting an alternative to the general verdict, in the arena of mixed law-fact issues where uniformity is important, “the Court has been reluctant to give the trier of fact’s conclusions presumptive force.”165 Correspondingly, courts have been urged to “institute safeguards consistent with the Seventh Amendment to ensure that the legal issues are determined by the court and that only triable factual questions are determined by the jury.”166

B. Special Verdicts Are Preferable to Special Interrogatories

Two proposed safeguards to refine the jury’s role and penetrate the “black box” of a general verdict are special verdicts and special interrogatories. Rule 49 of the Federal Rules of Civil Procedure authorizes the use of special verdicts167 and general verdicts with special interrogatories in civil cases.168 Commentators assert that relative to judges, juries tend to lump and decide issues in the aggregate,169 so compelling a jury to consider factual issues individually through a special verdict or special interrogatory may improve the consistency of jury verdicts, as well as the underlying decision-making processes.170 Furthermore, the resultant transparency that these two verdict forms yield remedies the “black box” conundrum.

In utilizing special verdicts, the judge does not “give any charge about the substantive legal rules beyond what is reasonably necessary to enable the jury to answer intelligently the [factual] questions” given to them.171 Special verdicts therefore eliminate

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167 FED. R. CIV. P. 49 (Rule 49(a) allows the court to require a jury “to return only a special written finding upon each issue of fact.”).
168 Fed. R. Civ. P. 49 (Rule 49(a) allows the court to require a jury “to return only a special written finding upon each issue of fact.”).
169 Moore, supra note 126, at 217.
170 Zegger & Lee, supra note 135, at 716.
the need for potentially complicated instructions in law, leaving juries to simply answer factual questions. As will be discussed in further detail, the Federal Circuit has not required, but has encouraged, trial courts to utilize special verdicts or special interrogatories in patent cases and has otherwise held that the legal question of obviousness may be submitted to the jury through the form of a general verdict rather than by Rule 49.

In adopting the first safeguard, the Seventh Circuit recognized that “because only issues of fact subsidiary to the legal question of obviousness are within the province of the jury, its resolution of those issues of fact should ordinarily be articulated in special verdicts under Federal Rule of Civil Procedure 49(a).” On the other hand, the Tenth Circuit has held that the use of special verdicts is a discretionary decision for the trial judge.

Under Federal Rule of Civil Procedure 49(b), general verdicts with special interrogatories require a court to instruct a jury on the relevant law and ask juries to apply those legal principles to the facts. Commentators posit that special interrogatories are preferable when the law and fact “cannot be so neatly separated” when submitting mixed questions of law and fact to the jury. However, because 49(b) requires the application of legal principles to facts, the potential for inconsistency in this process is a problematic characteristic of general verdicts with special interrogatories that is absent from special verdicts. Furthermore, the Seventh Circuit in Dual Manufacturing stressed that “a general verdict, with or without answers to special interrogatories, will ordinarily serve no purpose, because the court will still have the responsibility of deciding obviousness” as a question of law.

Although it may be difficult to separate law and fact in mixed questions, the Supreme Court’s holding obviousness to be a question of law and corresponding delineation of the Graham

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172 Ouyang, supra note 164, at 166.
175 Dual Mfg. & Eng’g, Inc. v. Burris Indus., Inc., 619 F.2d 660, 667 (7th Cir. 1980).
176 Wheeler v. John Deere Co., 935 F.2d 1090, 1101 (10th Cir. 1991) (“When jury instructions comprehensively cover all material issues in the case, a district court does not abuse its discretion in denying a request for special interrogatories.”).
177 Ouyang, supra note 164, at 166.
178 Zegger & Lee, supra note 135, at 716; see Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 724 (Fed. Cir. 1984) (noting that special verdict forms have a particular advantage of not having to instruct the jury on the legal issues unlike where the jury has to deliver a verdict with or without interrogatories).
179 Dual Mfg., 619 F.2d at 667.
factual underpinnings support the proposition that this is a distinction that must be made in appropriating the role of judge and jury on the question of obviousness.

The use of special interrogatories runs counter to confining the jury’s role to factual findings, as they require legal analysis that should be reserved for the judge. They notably suffer from potential inconsistency in the jury’s application of the facts to the legal standards of non-obviousness.180

Special verdicts serve an appropriate middle ground in remedying the black box of the general verdict while upholding the traditional role of the jury and allowing for judicial determination of the legal question of non-obviousness with a framework for effective review. Implementation of special verdicts would produce the transparency that allows the court to render its own legal conclusion based on the jury’s factual findings, not just presumed ones. Special verdict forms can “help produce better-informed, more consistent jury determinations.”181 In clearly separating the respective functions of judge and jury,182 special verdicts effectuate the congressional policy expressed in patent law183 and should be mandated in cases of obviousness.184

C. Special Verdicts and the Federal Circuit

Expressing a favorable perspective, the Supreme Court has noted that, “in cases that reach the jury, a special verdict and/or interrogatories on each claim element could be very useful in facilitating review, uniformity, and possibly post-verdict judgments as a matter of law.”185

The Federal Circuit does not mandate the use of a particular set of jury instructions or verdict forms,186 thus creating a situation where each district, or even each bench, may utilize substantially

180 Gulmen, supra note 159, at 112.
181 Zegger & Lee, supra note 135, at 716.
182 See Structural Rubber, 749 F.2d at 724.
184 Moore, supra note 116, at 792; see also John Petravich, Making a Pitch for Extending a Judge’s Power to Determine Obviousness: How the McGinley Court Struck Out, 3 J. MARSHALL REV. INT’L PROP. L. 156 (2003).
185 See R.R. Dynamics, Inc. v. A. Stucki Co., 727 F.2d 1506 (Fed. Cir. 1984); see also McGinley v. Franklin Sports, Inc., 262 F.3d 1339 (Fed. Cir. 2001); Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1582 (Fed. Cir. 1986); Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613 (Fed. Cir. 1985) (finding no reversible error in declining to present special interrogatories to the jury).
different jury instructions and verdict forms. At best, the Federal Circuit suggests that general jury verdicts should be avoided, but it does not mandate the use of more detailed verdict forms.

The Federal Circuit defers to the regional circuit’s precedent on procedural matters as a means of minimizing confusion between the district courts. The Federal Circuit has also held that it does not possess supervisory power over the district courts.

However, the Federal Circuit does reserve the authority to decide procedural issues in relation to substantive matters when those matters are “unique” to patent law, such as mandating special verdicts for the *Graham* inquiries in non-obviousness. Furthermore, the Supreme Court seems to have signaled that the Federal Circuit may be able to “implement procedural improvements to promote certainty, consistency, and reviewability” in areas of patent law. Moreover, there is scholastic support for Federal Circuit law that would be applicable to all procedural issues in patent cases, viewing it as superior to the current choice of law rules.

In summation, there is support for a Federal Circuit holding

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187 Gulmen, supra note 159, at 99.
190 See Allen Organ Co., 839 F.2d at 1563; Panduit Corp., 744 F.2d at 1575; see also Biodex Corp. v. Lorcan Biomed., Inc., 946 F.2d 850, 857-58 (Fed. Cir. 1991) (noting that the Federal Circuit practice is to defer to regional circuit law for issues involving interpretation of the Federal Rules of Civil Procedure).
191 See *In re* Mark Indus., 751 F.2d 1219, 1222 (Fed. Cir. 1984) (“This court has no administrative authority over any district court.”); Petersen Mfg. Co. v. Cent. Purchasing, Inc., 740 F.2d 1541, 1552 (Fed. Cir. 1984) (“Unlike other Circuit Courts of Appeal, we have no direct supervisory authority over district courts.”) (citation omitted); *In re* Int’l Med. Prosthetics Research Assocs., Inc., 739 F.2d 618, 619 (Fed. Cir. 1984) (stating that “this court is devoid of [supervisory] authority”).
193 *Id.* at 39 n.8.

With regard to the concern over un-reviewability due to black-box jury verdicts, we offer only guidance, not a specific mandate. . . . Finally, in cases that reach the jury, a special verdict and/or interrogatories on each claim element could be very useful in facilitating review, uniformity, and possibly post-verdict judgments as a matter of law. We leave it to the Federal Circuit how best to implement procedural improvements to promote certainty, consistency, and reviewability to this area of law.

*Id.*

that demands the use of a particular verdict form on matters “unique” to patent law, such as mandating the use of special verdicts for the Graham factors of non-obviousness.\footnote{See Moore, supra note 116, at 779.}

There has been fragmented support for the use of special verdicts on the question of non-obviousness in the Federal Circuit. Without creating a precedential mandate, the Federal Circuit has expressed that special verdict forms or interrogatories on the Graham factors should be employed and would be beneficial.\footnote{See Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 1479, 1485 (Fed. Cir. 1997): Determining the facts and how they bore on the jury’s view of the case is made considerably more problematic when, as in the case before us, the only information we have about the jury’s views are contained in a general verdict. . . . The preferred route would have been to submit the underlying factual issues to the jury in the form of a special verdict under Rule 49(a). . . . The reasons for using this procedural device are obvious and well documented in all areas of law. For example, one noted scholar long ago described the benefits as follows: ‘The special verdict compels detailed consideration. But above all it enables the public, the parties and the court to see what the jury really has done. The general verdict is either all wrong or all right, because it is inseparable and inscrutable. A single error completely destroys it. But the special verdict enables errors to be localized so that the sound portions of the verdict may be saved and only the unsound portions be subject to redeterminations through a new trial.’ Id. (quoting Sunderland, Verdicts, General and Special, 29 Yale L.J. 253, 259 (1920)); see also Agrizap, Inc. v. Woodstream Corp., 520 F.3d 1337, 1343 n.3 (Fed. Cir. 2008); McGinley v. Franklin Sports, Inc., 262 F.3d 1339 (Fed. Cir. 2001); Mendenhall v. Cedarapids, Inc., 5 F.3d 1557, 1563 (Fed. Cir. 1993); R.R. Dynamics v. Stucki, 727 F.2d 1506, 1516-17 (Fed. Cir. 1984); Am. Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1361 (Fed. Cir. 1984); Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 721 (Fed. Cir. 1984); Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 893 (Fed. Cir. 1984).}

In positioning the standard of review, the court in Agrizap hinted that greater specificity in special verdicts provide “more insight” on jury findings.\footnote{Agrizap, Inc., 520 F.3d at 1343 n.3 (Fed. Cir. 2008) (suggesting that special verdict forms that ask specific subsidiary factual questions are preferable to those that just ask the jury its view of obviousness); see also Zegger & Lee, supra note 135, at 716 (“By compelling a jury to consider factual issues individually, special verdicts and interrogatories may improve the consistency of jury verdicts as well as the underlying decision-making processes that produce them.”).} One sitting Federal Circuit judge remarked, “clarification by our court of when to apply Rule 49 in patent actions in my opinion may offer the single most effective means of helping district courts rationalize jury verdicts.”\footnote{Paul R. Michel & Michelle Rhyu, Improving Patent Jury Trials, 6 Fed. Cir. B.J. 89, 91 (1996).}

Judge Michel advocated for a similar directive in his dissenting opinion in McGinley v. Franklin Sports, Inc.\footnote{262 F.3d 1339 (Fed. Cir. 2001) (Michel, J., dissenting).} He expressed concern over the “common, if unfortunate, process” of allowing a general jury verdict on the legal question of obviousness that renders it essentially immune from review.\footnote{McGinley, 262 F.3d at 1358-59, 1363 (expressing that “[it is] surprising to find our supposedly de novo review so limited, despite our settled case law that a jury’s ultimate conclusion on obviousness is a legal question freely reviewable by judges”).}
trend in the Federal Circuit seems misaligned with its own holding that “[t]here is no question that the judge must remain the ultimate arbiter on the question of obviousness.” 201

Of prime illustration, the Federal Circuit in Structural Rubber emphasized that Rule 49(a) beneficially simplifies jury instructions, separates respective judge and jury functions, conserves judicial resources, and effectuates the Congressional policy expressed in the patent laws. 202 In Perkin-Elmer, the court reviewed a general verdict presupposing factual determinations for substantial evidentiary support, but stated that it would have preferred the use of special interrogatories to facilitate review. 203 Further, in Mendenhall v. Cedarapids, Inc., the court recognized that special verdicts allow the judge to retain control over the ultimate verdict while preserving judicial resources. 204

In Jurgens v. McKasy, 205 the Federal Circuit expressly acknowledged that while factual findings are given due deference, the ultimate question of obviousness is a question of law for the court to decide independently; 206 and yet, general “black box” verdicts remain the norm. In PharmaStem Therapeutics, the court opened with noting that “[o]bviousness is a legal conclusion that we review de novo,” but then proceeded with the seemingly inconsistent and characteristic deferential review utilized in the

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201 R.R. Dynamics, Inc., 727 F.2d at 1515; see also Richardson-Vicks F.3d at 1479 (“That an obviousness determination stands upon the relevant facts of the case does not convert the ultimate conclusion of obviousness from one of law into one of fact.”).

202 See Moore, supra note 116, at 792 (citing Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 718, 724 (Fed. Cir. 1984) (suggesting special verdicts as a solution to the “black box in which patents are thrown and emerge intact or invalid by an unknown and unknowable process”)); see also Richardson-Vicks, 122 F.3d at 1485 (“Given the nuances of patent law combined with the added complications of technology, the advantages of a special fact verdict are even more pronounced.”); Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1582 (Fed. Cir. 1986) (“The alternative mandatory verdict instructions discussed in Structural Rubber are desirable and facilitate both jury deliberations and appellate review”).


204 See Mendenhall v. Cedarapids, Inc., 5 F.3d 1557, 1563 (Fed. Cir. 1993): One advantage of the use of special verdicts is that some may be accepted for those issues that are resolved according to the evidence and law and others need not be relied upon or may even be rejected outright. . . . Thus, a new trial may be avoided entirely or be necessary on only certain issues. . . . The trial judge reserves a large measure of control over the judgment to be entered.

205 927 F.2d 1552 (Fed. Cir. 1991).

206 Jurgens v. McKasy, 927 F.2d 1552, 1557-59 (Fed. Cir. 1991). In Jurgens the Court acknowledged the benefits of special verdicts alongside treating obviousness as a question of law:

When an issue of law has been submitted to the jury upon disputed facts – for example, a jury special verdict on patent claim obviousness where the underlying facts have been disputed – the standard of review has two parts. We first presume that the jury resolved the underlying factual disputes in favor of the verdict winner and leave those presumed findings undisturbed if they are supported by substantial evidence. . . . Then we examine the legal conclusion de novo to see whether it is correct in light of the presumed jury fact findings.

Id. at 1557.
Countering this widely asserted inconsistency, it has been claimed that the Federal Circuit does conduct independent review of jury verdicts on obviousness, illustrated by its reversals of lower court denials of motions for judgments as a matter of law (JMOL). However, this proffered evidence is immaterial to the customary review of general verdicts that courts conduct on every obviousness case when no motion for JMOL is made. Critics argue that there must be independent judicial review on every jury verdict without requiring the party to motion for JMOL, and the “black box” status quo prevents such legal analysis.

D. Support for Special Verdicts in the District Courts

The benefits of special verdict forms can only be fully realized through careful drafting that clearly focuses the jury’s attention to specific factual questions. The reception to, and development of, special verdict forms in the district courts is noteworthy.

The special verdict forms developed in the United States District Courts for the Western District of Texas and the Northern District of California embody the desirable focus on the *Graham* factual inquiries. The U.S. District Court for the Western District of Texas illustratively uses a special verdict comprising the four requisite *Graham* questions and ultimately leaves the legal judgment of obviousness to the judge. The U.S. District Court for the Northern District of California provides instructions for either a special verdict where the jury only determines the underlying factual *Graham* inquiries or an advisory verdict where the jury makes the determination of non-obviousness that has no binding effect on the trial judge.

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207 Pharmastem Therapeutics, Inc. v. ViaCell, Inc., 491 F.3d 1342, 1359 (Fed. Cir. 2007).
208 See Boston Scientific Scimed, Inc. v. Cordis Corp., 554 F.3d 982, 990 (Fed. Cir. 2009), petition for cert. dismissed, No. 09-103, 2009 LEXIS 7156 (Oct. 2, 2009) (reversing the denial of the alleged infringer’s JMOL motion on obviousness); Agrizap, Inc. v. Woodstream Corp., 520 F.3d 1337, 1344 (Fed. Cir. 2008) (finding the defendant’s obviousness case “overwhelming” and reversing the district court’s denial of the defendant’s motion for JMOL on obviousness).
209 See Moore, supra note 116, at 785-88 (noting the use of various permutations of special verdicts for non-obviousness in the Western District of Pennsylvania, Northern District of Ohio, District of Delaware, Southern District of California, Eastern District of Texas, Western District of Texas, District of North Carolina, and Northern District of Illinois).
The Northern District of California’s special verdict form presents a valuable framework that can be utilized in working towards developing the optimal draft for a special verdict on the underlying factual components of non-obviousness:

Not all innovations are patentable. A patent claim is invalid if the claimed invention would have been obvious to a person of ordinary skill in the field [at the time the application was filed][as of [insert date]]. The court, however, is charged with the responsibility of making the determination as to whether a patent claim was obvious based upon your determination of several factual questions. First, you must decide the level of ordinary skill in the field that someone would have had at the time the claimed invention was made. Second, you must decide the scope and content of the prior art. Third, you must decide what difference, if any, existed between the claimed invention and the prior art. Finally, you must determine which, if any, of the following factors have been established by the evidence:

1. Commercial success of a product due to the merits of the claimed invention;
2. A long felt need for the solution provided by the claimed invention;
3. Unsuccessful attempts by others to find the solution provided by the claimed invention;
4. Copying of the claimed invention by others;
5. Unexpected and superior results from the claimed invention;
6. Acceptance by others of the claimed invention as shown by praise from others in the field or from the licensing of the claimed invention;
7. Other evidence tending to show non-obviousness;
8. Independent invention of the claimed invention by others before or at about the same time as the named inventor thought of it; and
9. Other evidence tending to show obviousness.212

The recognition of the benefits of special verdicts at the district court level should draw the Federal Circuit’s attention in support of a precedential mandate for special verdicts on the Graham factors in non-obviousness. Furthermore, a Federal Circuit mandate on special verdicts would remove incentives to forum shop213 in the districts and henceforward promote

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uniformity.

CONCLUSION

This Note draws attention to the dominant role non-obviousness has in patent law as a means of illustrating how indeterminacy and variability in this standard of patentability threatens the U.S. patent system and society at large. Discussion of the inconsistency rampant in the Federal Circuit’s approach to the non-obviousness question of patent validity highlights the urgent need for reform. Consistent with a majority of the regional circuits (preceding the formation of the Federal Circuit), Supreme Court directives, and partial support from the dichotomous Federal Circuit precedent, this Note asserts that a two-tiered judicial inquiry with apportioned roles for jury and judge is the proper resolve to be adopted for non-obviousness jurisprudence. In accordance with the Federal Circuit’s authority to do so, special verdicts should be mandated for the underlying *Graham* inquiries as a means of enhancing judicial review in further support of non-obviousness as a question of law.

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