

No. 04-1350

IN THE
Supreme Court of the United States

KSR INTERNATIONAL CO.,
Petitioner,

v.

TELEFLEX INC. AND TECHNOLOGY HOLDING CO.,
Respondents.

**On Writ of Certiorari to the
United States Court of Appeals
for the Federal Circuit**

**BRIEF OF *AMICUS CURIAE* THE PROGRESS
& FREEDOM FOUNDATION
IN SUPPORT OF THE PETITIONER**

JAMES V. DELONG *
SOLVEIG SINGLETON
THE PROGRESS & FREEDOM
FOUNDATION
1444 Eye St., NW
Suite 500
Washington, DC 20005
(202) 289-8928

* Counsel of Record

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INTEREST OF *AMICUS CURIAE*

The Progress & Freedom Foundation (PFF) is a non-profit research and educational institution, as defined by the Code of the Internal Revenue Service, 26 U.S.C. § 501(c)(3).¹ The Foundation's principal mission is to study the impact of the digital and electronic revolution and its implications for public policy.

¹ The parties to this proceeding have filed with the Clerk of Court blanket consents to all *amicus curiae* briefs. Pursuant to Rule 37.6, *amicus curiae* states that no counsel for a party authored this brief in whole or in part, and no person other than the *amicus curiae*, its members, or its counsel made a monetary contribution to the preparation or submission of this brief.

PFF's interest in this case stems from the work of an internal project called IPCentral.Info (*a.k.a.*, the Center for the Study of Digital Property (CSDP)), which is dedicated to developing and advancing market-based, property-rights-oriented approaches to issues presented by technological change. This focus makes us strong supporters of property rights in intellectual creations. For example, we filed briefs with this Court in support of the content company petitioners in the case of *Metro-Goldwyn-Mayer Studios v. Grokster, Ltd.*²

In furtherance of the mission, we maintain a website, *IPcentral.Info*,³ which contains links to a variety of materials on intellectual property issues, including written materials, a weblog, and links to other sites with related interests. Staff members prepare or commission analyses of important intellectual property issues. We have an Academic Advisory Council composed of distinguished professors. Staff members also appear before congressional committees, interact regularly with journalists, academicians, industry representatives, and government officials, and file *amicus* briefs.

PFF's interest in this case stems from the work of our scholars on the interaction of technology with the legal institution of intellectual property. Intellectual property rights, are indispensable to continued innovation and to the health of competitive markets. However, precisely because of our fierce insistence on their importance, we are also adamant that the patent system must not overreach by trying to protect too much. Especially in a time when technology is progressing rapidly, extending the patent system to cover advances that are obvious to all who are skilled in the art puts

² Brief of *Amicus Curiae* Progress and Freedom Foundation in Support of Petitioner, *Metro-Goldwyn-Mayer Studios v. Grokster, Ltd.*, __U.S.__ (Jan. 24, 2005) (No. 04-480).

³ <http://www.ipcentral.info>

glue rather than grease into the gears of innovation. It rewards those who “make it their business to watch the advancing wave of improvement, and gather its foam . . . without contributing anything to the real advancement of the arts.”⁴

The parties will brief the technical aspects of this case concerning the prior art relating to the invention at issue, the split between the Federal Circuit and other Circuits, and the Federal Circuit’s departure from this Court’s patent precedents. PFF’s participation is intended to help the Court assess the broader policy issues.

SUMMARY OF ARGUMENT

Intellectual property, particularly in the form of patents, is an important source of wealth and a major contributor to U.S. and world, prosperity. Because of this importance, which is growing, there is constant effort by participants to patent anything that can make any pretense of a claim to meet the statutory criteria.

The result is an increasing unease about the quality of patents being granted, as has been noted by several significant recent studies, an unease that is focusing upon the application of the “nonobviousness” criteria for patentability.

The Federal Circuit insists that to reject a patent application as “obvious,” a patent examiner must find in prior art a concrete “teaching, suggestion, or motivation” for combining previous elements into the invention for which the patent is claimed. The application of common sense, or reasoning by analogy from other fields, or noting that some ideas are too common to be written down, are largely ruled out. The result is a one-way ratchet in favor of granting patents, which only encourages trivial patents that actually retard innovation and competition.

⁴ *Atlantic Works v. Brady*, 107 U.S. 192, 199-200 (1882) (Mr. Justice Bradley).

There is a fair consensus among patent scholars (though not necessarily practitioners) that the current standard of non-obviousness errs on the side of patent grants. There is likewise a consensus (emphasized by practitioners) that the difficulty the standard was designed to solve is real—that is, the problem of hindsight, which can make almost any technical advance appear obvious in retrospect. Practitioners fear that abandoning the Federal Circuit’s requirement that an examiner point to specific prior writing on the invention will provide an incentive for examiners to clear their desks by stamping “obvious” on the file and tossing it into the out-tray. They are also troubled by the difficulty of articulating an alternative standard, especially when there is no clear consensus about the best solution.

These fears of hindsight and subjectivity deserve respect, because the seriousness of the problems must be acknowledged. But the Federal Circuit’s solution errs in assuming that the risk must be controlled by Procrustean legal doctrine. Legal doctrine can only do so much, and the price imposed by extending it beyond its competence is too high in terms of “bad patents” granted. Risks of subjectivity can be better controlled by available administrative mechanisms, such as revised PTO incentive structures or multi-member review panels, and by district courts bringing to bear additional doctrines, such as the secondary criteria of the *John Deere* case.

ARGUMENT

I. THE GROWING IMPORTANCE OF INTELLECTUAL PROPERTY, AND THE GROWING UNEASE ABOUT PATENT QUALITY

On the surface, this case involves a simple product, the automobile accelerator pedal. But this product, like so many these days, has been revolutionized, because what was once a straightforward mechanical linkage is now a hybrid that mar-

ries the mechanical act of pressing a pedal to electronic devices composed mainly of computer chips and software code.

The pedal exemplifies the great shift in the nature of economic value that has occurred over the past few decades. As two prominent economic thinkers recently noted:⁵

We used to live in an economy in which the canonical source of value was an ingot of iron, a barrel of oil or a bushel of wheat. . . . We are moving to an economy in which the canonical source of value is a gene sequence, a line of computer code, or a logo. As Chairman Greenspan [citation omitted] has often emphasized, in such a world, goods are increasingly valued not for their physical mass or other physical properties but for weightless ideas

The authors point out the change from the basic industrial economy:

Back in the Gilded Age intellectual property as such was not such an important factor. Industrial success was based on knowledge, but on knowledge crystalized in dedicated capital. Many people knew organic chemistry. Few companies—those that had made massive investments—could make organic chemicals.

This evolution in the locus of value creates strong incentives for economic actors to push the boundaries of intellectual property protection out as far as possible.

Like so much else in economic and political life, there is a Prisoner's Dilemma problem.⁶ Everyone is better off if intellectual property is defined as including only genuine ad-

⁵ J. Bradford DeLong & Lawrence H. Summers, "The New Economy: Background, Historical Perspective, Questions, and Speculations," Federal Reserve Bank of Kansas City Economic Review 29, 35 (Fourth Quarter 2001).

⁶ See, *e.g.*, William Poundstone, *Prisoner's Dilemma* (Doubleday 1992); Robert Axelrod, *The Evolution of Cooperation* (Basic Books 1984); James D. Miller, *Game Theory at Work* (McGraw-Hill 2003).

vances, but each individual is better off if everyone else is limited while he himself manages to push dubious patents through the system. The logical outcome of such a set of incentives is constant pressure on the United States Patent and Trademark Office (USPTO) in the form of applications to patent every advance that can make any possible claim of meeting the criteria for patentability.

Indeed, the current general level of concern about the quality of patents is high, with particular focus on the “non-obviousness” standard.

A recent Federal Trade Commission (FTC) report devoted extensive attention to the issue of “questionable patents.”⁷ It recommended specifically that legal standards used to evaluate whether a patent is “obvious” should be “tighten[ed],” and it criticized the test imposed on the field by the Federal Circuit.⁸

A study by the National Research Council (NRC) expressed similar fears:

[Several factors] lead the committee to conclude that there are reasons to be concerned about both the courts’ interpretation of the substantive patent standards,

⁷ Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (Oct. 2003), *passim*.

⁸ *Id.* at pp. 10-12. The FTC cited the statement of a witness who noted that “his company’s engineers . . . ‘every day’ independently invent things that have been deemed nonobvious.” The FTC adds that “Requiring concrete suggestions or motivations beyond those actually needed by a person of ordinary skill in the art, and failing to give weight to suggestions implicit from the prior art as a whole, suggestions from the nature of the problem to be solved, and the ability and knowledge of one of ordinary skill in the art, errs on the side of issuing patents on obvious inventions and is likely to be unnecessarily detrimental to competition.” Chapter 4 at p. 15.

particularly non-obviousness, and USPTO's application of the standards in examination.⁹ [Emphasis added.]

The Co-Chairs of this NRC study recently repeated this fear to a Senate subcommittee:

The NRC committee supports seven steps to ensure the vitality and improve the functioning of the patent system:

....

2) Reinvigorate the nonobviousness standard. The requirement that to qualify for a patent an invention cannot be obvious to a person of ordinary skill in the art should be assiduously observed. In an area such as business methods, where the common general knowledge of practitioners is not fully described in published literature likely to be consulted by patent examiners, another method of determining the state of knowledge needs to be employed.¹⁰

In reaching its conclusion, the NRC study relied on a rising tide of scholarly opinion:

[A] number of legal scholars view the evolution of the law over the last generation as reducing the size of the step required for patentability under the non-obviousness

⁹ National Research Council, *A Patent System for the 21st Century* (2004) (Stephen A. Merrill, Richard C. Levin, & Mark B. Myers (eds)) (report of the Committee on Intellectual Property Rights in the Knowledge-Based Economy), p. 63. [Hereafter "NRC Report."]

¹⁰ Richard C. Levin, President, Yale Univ., & Mark B. Myers, Wharton School, Univ. of Pennsylvania, Statement Before the Subcommittee on Intellectual Property, Senate Committee on the Judiciary, *Hearings on Perspectives on Patents* (April 25, 2005).

standard and as allowing the issuance of patents on obvious inventions.¹¹

Leading economics and business scholars concur:

As a result of legal and administrative changes made between 1982 and 1990, the PTO has become so over-taxed, and its incentives have become so skewed toward granting patents, that the tests for novelty and non-obviousness that are supposed to ensure that the patent monopoly is granted only to true inventors have become largely non-operative.¹²

II. THE STANDARD APPLIED BY THE FEDERAL CIRCUIT CAUSES HARM

That the assessment of obviousness becomes contentious during a period of rapid technological change should not surprise. Human minds strike sparks from each other, and each innovation adds a new element for the creative to consider, and creates possible combinations with existing technologies. Such combinations are, by definition, novel. The question for patent law is whether such a combination is nonobvious, whether it is sufficiently beyond the routine competencies of practitioners in the field as to justify turning it into a property right.

In making this determination, two types of error are possible. One is that a patent will be denied that should have been granted; the other, that a patent is granted when anyone adequately skilled in the field, confronted with the problem solved by the novelty, would have come up with the same idea.

¹¹ NRC Report at 61 [citing six articles].

¹² Adam B. Jaffe & Josh Lerner, *Innovation and Its Discontents: How Our Broken Patent System is Endangering Innovation and Progress, and What To Do About It* (Princeton, 2004), pp. 34-35.

There is a gray area, where the outcome is not completely certain. It is fair to say that the Federal Circuit’s test, which requires, in essence, documented and precise proof of “teaching-suggestion-motivation,” defines the lower bound of that gray area. That is, any novelty that fails this test is obvious within the meaning of the patent law, beyond doubt, because prior practitioners already pointed it out.

However, some innovations might still be properly classified as obvious within the meaning of the statute even though prior writers had *not* pointed them out with precision, as this Court said repeatedly in its line of opinions starting with *Graham v. John Deere*¹³ and ending with *Sakraida*.¹⁴ The fact that the solution, in its exact form, had not been foreshadowed by prior writers may be indicative, but it is not conclusive.

A patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what already is known into the field of its monopoly and diminishes the resources available to skillful men¹⁵

Indeed, critics of the Federal Circuit standard note that in many fields no one may bother to publish the obvious; in others, such as software or business methods, there may be no strongly established publication culture, or long history of formal publications.¹⁶ In yet others, the potential to adapt a

¹³ *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

¹⁴ *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273 (1976).

¹⁵ *Sakraida* at 281, quoting *Great A. & P. Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 152 (1950) (ellipses in *Sakraida*).

¹⁶ Federal Trade Commission Report, Chapter 4 p. 40 (describing factors complicating the nonobviousness inquiry for business methods, including “the absence of a drive to publish within business method fields (unlike, for example, the sciences), and the fact that commercial practices in question often only exist in the ‘heads of business person.’”); Chapter 5 p. 7 (noting testimony that prior art problems are particularly hard to

practice common in one area to new circumstances may be obvious, but unwritten. For example, it would be difficult to argue that it was “nonobvious” to move the age-old practice of the auction from the warehouse to the Internet, but at some point in time this was not written down in any formal study.

The Federal Circuit’s test says, in essence, that all doubtful cases, all cases in the gray area, will be decided in favor of patentability. In other words, it has decided to run zero risk of rejecting a meritorious claim even at the cost of accepting numerous non-meritorious patents.

This is not sensible doctrine. Nor is it in accord with the statutory language or the precedents of this Court.

The defects of such a doctrine may well be illustrated by the notorious Patent 6,368,227, “Method of Swinging on a Swing,”¹⁷ obtained by a five-year old whose parent happened to be a patent lawyer. It is also called the “sideways swinging” patent, because that is what it covers—the idea that a swing can be made to move sideways as well as back and forth by pulling on the chains in a particular way.

The Patent Commissioner ordered a re-examination of the ’227 patent on May 21, 2002,¹⁸ and ultimately the examiner found sufficient prior art in patents granted decades earlier to result in the invalidation of the swing patent.¹⁹ But the case ought never to have gotten so far; scarce patent-examiner hours and public resources had to be expended to officially recognize the obvious. The difficulty the patent office faced

discover “in fields characterized by limited or abstract patent disclosures or lacking a culture favoring non-patent publication.”)

¹⁷ United States Patent No. 6,368,227, Method of Swinging on a Swing. Filed Nov. 17, 2000; Granted April 9, 2002 (Steven Olson).

¹⁸ USPTO, Official Gazette Notices, July 2, 2002.

¹⁹ Reexamination Certificate (4803rd), Method of Swinging on a Swing. Issued July 1, 2003.

resulted from the fact that the Federal Circuit's standard forbade the examiners to take notice of what, literally, any child would know. A newspaper report on the matter said, "The patent office is searching for documented proof that children have always powered their swings by pulling on the chains. Then, and only then, will it kill the patent as quietly as possible."²⁰ The office had difficulty finding *written* proof of something known to all, and, if it had been unable to find such evidence, then under the Federal Circuit test the patent would stand. "[D]eficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.'" ²¹ "'Common knowledge and common sense,' even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority."²²

In the swing patent case, ultimately, the PTO eventually arrived at the sensible result. But the Federal Circuit decisions present an obstacle to the office's doing so in a significant number of cases. For example, in 1999, the Federal Circuit reversed the PTO's rejection of a patent application for orange trash bags with jack-o-lantern faces.²³ A prior art search had turned up instructions for a children's craft project involving the drawing of pumpkin faces on large orange bags.

²⁰ David Streitfeld, "Note: This Headline is Patented," *Chicago Tribune* (Online Edition), Feb. 7, 2003 (unpaginated) < <http://www.chicagotribune.com/technology/local/chi-0302,0,7319176.story>>.

²¹ *In re Zurko*, 258 F.3d 1379, 1385 (Fed. Cir. 2001).

²² *In re Lee*, 277 F.3d 1338, 1345 (Fed. Cir. 2002). The writer of the news story cited in Note 20 commented that the patent application was "elegantly written" and "obviously tongue-in-cheek" but that "the examiner didn't get the joke." The authors of this brief beg to differ; it is likely that the examiner got the joke quite nicely, and decided to play a trick of his/her own on those who had crafted the rules forcing the issuance of such a patent.

²³ *In re Dembiczak*, 175 F. 3d 994 (Fed. Cir. 1999).

But this was not sufficient for the Federal Circuit, because the instructions referred to paper bags, not to trash bags.

III. INSTITUTIONAL CONSIDERATIONS

Recognizing the truth that “virtually all [inventions] are combinations of old elements,”²⁴ the Federal Circuit places immense importance on avoiding “the hindsight trap,”²⁵ “the insidious effect of a hindsight syndrome”²⁶ and “the tempting but forbidden zone of hindsight.”²⁷ It relies on the ability of “the ‘motivation-suggestion-teaching’ requirement [to] protect[] against the entry of hindsight into the obviousness analysis.”²⁸

This concern over hindsight is valid and important. One can generalize it even further; in dealing with any large bureaucracy, any sensible person must be concerned about the role of subjective judgments and the possibility of decisions by individual whim. Avoiding such is a good working definition of “the rule of law.”

The USPTO is indeed a large bureaucracy. It must deal with some difficult problems, and is under extraordinary pressures. It has personnel problems, management issues, funding issues, and problems with morale. Attempts to improve examiner access to prior art using technology have made frustratingly little progress.

Even if all these problems were solved, a number of factors are probably inherent in the process, in addition to the

²⁴ *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983).

²⁵ *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999).

²⁶ *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 664 (Fed. Cir. 2000).

²⁷ *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 873 (Fed. Cir. 1985).

²⁸ *In re Kahn*, 441 F.3d 977, 985 (Fed. Cir. 2006).

tendency of even significant advances to appear “obvious” in hindsight:

The growing number of patents, stemming from the increasing significance of intellectual property and intellectual capital to the economy, and the time pressure this places on patent examiners.

The complexity of the technologies involved in many of the most important areas of innovation, and the pressures this places on the system for recruiting and training examiners.

The limitations on examiner consultations with outside experts to determine “ordinary skill in the art,” due to the employment of those experts by competitors of the patent claimant, and the general need for confidentiality and avoidance of conflicts of interest.

The *ex parte* nature of the examination process.

Given all these factors, concern about subjective judgment is fully justified, and an urge to provide examiners with a template that will eliminate all role for subjective judgment concerning nonobviousness is strong. The patent bar, engaged in the business of filing claims and aware of the inherent uncertainties of the examination process, may well favor rules designed to make the job of the examiner as automatic as possible so that they can compensate for those limitations in their filings and procedures. The legal mind tends to assume that any problem can be cured by one more doctrine and another round of procedures.

In essence, where the Federal Circuit has gone wrong is in placing too great a burden on an articulation of the non-obviousness doctrine as *the* solution to the problem of controlling the exercise of subjective judgment and hindsight bias in the huge organization that is the USPTO. This temptation must be resisted, because giving in to it represents an effort to force a legal test to perform a quality control function that it is ill-suited to perform. It is, in the classic

joke, the equivalent of searching under the street light because the light is better there.

In reality, there *is* a subjective element in applying the test. No articulation of the standard can eliminate it completely, and the effort to find such an articulation has led to the current situation.

But adopting the correct standard does not require that USPTO or the courts give in to subjective whim, because there are administrative mechanisms that can be used to make the exercise of subjective judgment fair and reasonably consistent over time.

For example, USPTO could adopt the current Federal Circuit test as a first cut, because it does indeed represent a crucial benchmark. Any invention which fails the “teaching-suggestion-motivation” test is clearly not patentable. But this need not end the inquiry. If the examiner thinks he/she has a special case in which this test does not capture the reality of the situation, perhaps the matter could be referred to a multi-person review committee, thus eliminating the influence of a single examiner’s whim. Or perhaps boards of outside experts could be established, or community peer review processes conducted over the Internet.

Another possibility is that the incentive system for patent examiners might need correction. Some observers fear that a more rigorous application of the standard will tempt an examiner to stamp “rejected” on an applications just to clear his desk and earn a point under the USPTO personnel system. Or, because examiners are awarded one point for the first office action, a second for the second office action, and no more, they have an incentive to start by rejecting patents for no good reason. Then the “second action” can be to grant the patent, earning, in effect, two points for one review. If the first action is acceptance, the examiner gets only a single point.

The point is that the USPTO can devise administrative solutions to address any problems created by a less rigid, but more legally-valid, approach to determining nonobviousness. The Federal Circuit might then alleviate the concern about the danger of hindsight by assessing the adequacy of the agency's "internal gyroscope":²⁹

[Reviewing] courts might profitably consider expanding their purview to include an evaluation of the roles and adequacy of other mechanisms of control. A court's role under this conception would be to ensure that somebody somewhere in the system performed adequate quality control and to recognize that the somebody need not necessarily be a court. . . . [It may be] the agency's internal processes.

If internal USPTO processes are the first line of defense against the possibility of whim, the second line is the U.S. district court, which is a crucial part of the quality control process. Realistically, there will be errors at the USPTO, given the volumes with which it must deal, and the time pressures. Also, since examination is an *ex parte* process, the examiners will never be exposed to all the arguments that opponents will muster when properly motivated.

Unfortunately for inventors, few patents ever lead to anything economically viable. Most are stuffed in a file somewhere, or serve primarily to adorn resumes.

The patents that go to litigation are those that show economic promise, so there are incentives to elicit reasonable efforts to support and refute them.

A district court has available a number of tools to ensure that a corrected nonobviousness standard is properly applied.

²⁹ James V. DeLong, "New Wine for a New Bottle: Judicial Review in the Regulatory State," 72 *Va. L. Rev.* 399, 417-18 (1986).

It can appoint an expert witness to aid in its determinations.³⁰ It can take into account the timing of the invention, the pace of change in the industry, the complexity of the technology, and other sector-specific factors.³¹ It can look at such secondary factors as “teaching away” from the invention, the satisfaction of a long-felt need, and the invention’s role in the success of the product in the market.³² It can demand that the PTO articulate its reasoning in a convincing way, explaining a conclusion of nonobviousness that is reached in the absence of a specific teaching, suggestion, or motivation.

The experience of foreign nations could be incorporated. While statutory differences preclude automatic transfer of doctrines, perhaps U.S. jurisprudence has room for “the skilled but unimaginative technician,”³³ a concept that could

³⁰Joseph P. Meara, “Note: Just Who Is the Person Having Ordinary Skill in the Art? Patent Law’s Mysterious Personage,” 77 *Wash. L. Rev.* 267 (2002).

³¹ There is a limit to how far rules of thumb can serve given that, by definition, patent inquiries involve technology on the cutting edge and entirely new types of technology. Some rules of thumb, such as looking for “structural similarity” between the claimed invention and elements in prior art, are useful in chemical engineering generally but not in considering the biochemistry of DNA-protein relationships. Anita Varma & David Abraham, “DNA Is Different: Legal Obviousness and the Balance Between Biotech Inventors and the Market,” 9 *Harv. J. Law & Technology* 53 (1996).

³² There has been concern in the U.S. that the “commercial success” test requires no showing that the invention played a role in the success of the invention in the market. There is no reason that such a nexus could not be required, as it has been in the UK for many years. See *Wildey and Whites v. Freeman*, [1931] 48 R.P.C. 405; *Haberman v. Jackel International* [1999] F.S.R. 683 (Ch.).

³³ Despite the differences between the U.S. and foreign jurisdictions, the approaches are similar enough to be instructive. In both the European Patent Office (EPO) and the United Kingdom, the law requires an “inventive step” for a patent to be granted. In the EPO, the patent examiner has discretion to determine obviousness by considering the problem faced by

serve as a useful preventive to any return to the old and rejected “flash of genius” approach.

In sum, rejecting the “teaching-suggestion-motivation” approach as the sole test will *not* lead to subjective chaos and untrammelled application of hindsight. It *will* lead to both administrative mechanisms and subsidiary legal doctrines that channel the exercise of judgment, and that create an improved patent system.

It is also reasonable to expect that bringing the nonobviousness doctrine back into line with this Court’s cases will have a beneficial effect throughout the system. As noted earlier, once it becomes clear that patents of dubious validity are there for the taking, especially if they can be reaped simply by transferring well-known concepts from the bricks-and-mortar world to the Internet, then elementary Prisoner’s Dilemma considerations dictate that participants in the patent system must increase their levels of patent-seeking. Removing one significant incentive for this behavior would be a useful step.

CONCLUSION

As the Petitioner requests, this Court should reinvigorate its line of cases stemming from *Graham v. Deere*. But it can also look further back for guidance. Historical antecedents for the current dilemma exist, and so do precedents for its resolution, that come from the late 19th century, as described

one of ordinary skill in the art, and then comparing the solutions in the prior art to the invention. In the UK, the courts consider whether the difference between what is known to a “skilled but unimaginative technician” and the claimed invention are steps that would have been obvious to the technician, when viewed without knowledge of the alleged invention. *Windsurfing Intl. v. Tabur Marine Ltd.*, [1985] R.P.C. 59, 73; (CA 1984); see also *Ranbaxy UK Ltd v. Warner-Lambert Co* [2006] EWCA Civ. 876 (comparing the UK and EPO approaches). But both the EPO and the UK courts face many of the same problems as in the U.S.

by railroad historian Steven W. Usselman.³⁴ Then, as now, explosive technological, financial, and institutional change created a climate of creativity. Then, as now, complaints of over-reaching and fears of gridlock abounded. Then, as now, the concept of “obviousness” was a puzzle—what was truly new and what was within the grasp of anyone skilled in the art, only some grasped it a little more quickly than others?

These issues were bitterly fought for years, and this Court came down on the side of common sense, in *Atlantic Works v. Brady*, per Mr. Justice Bradley.³⁵

The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head-workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each forward step prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in consequences.

The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. Such an indiscriminate creation of

³⁴ Steven W. Usselman, *Regulating Railroad Innovation: Business, Technology, and Politics in America, 1840-1920* (Cambridge Univ. Press 2002).

³⁵ 107 U.S. 192, 199-200 (1882)

exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexatious accountings for profits made in good faith.

The effective application of the limitation that innovations are patentable only if they are nonobvious is vital to the effectiveness of the patent system in fulfilling its constitutional function of “promot[ing] the Progress of Science and useful Arts.” The goal is to create incentives for inventors to solve problems (hence the utility requirement) in new ways, not to reward them for successfully gaming the system, for “watch[ing] the advancing wave of improvement, and gather[ing] its foam,” in Justice Bradley’s phrase.

To the extent that an invention is the “foam” on the “advancing wave,” and within the probable ken of any skilled artisan who addresses a problem, the grant of a patent is not necessary to foster the discovery. It will, by definition, be found when the problem which it solves becomes important enough to engage serious attention. And there is no reason for the system to encourage investment in innovations that develop solutions that may or may not be needed in the future. If the problem is *not* sufficiently pressing to engage the present attention of those skilled in the art, then it shouldn’t be the subject of inventive resources.

Nor, in such cases, is a patent necessary to fulfill another important function of the system: to encourage disclosure of a technology that would otherwise remain secret. Nothing that is the “foam” on the “advancing wave” will remain secret for long.

For the above-stated reasons, the Court should reverse the decision of the Federal Circuit Court of Appeals and reinstate the summary judgment granted by the district court.

Respectfully submitted,

JAMES V. DELONG *
SOLVEIG SINGLETON
THE PROGRESS & FREEDOM
FOUNDATION
1444 Eye St., NW
Suite 500
Washington, DC 20005
(202) 289-8928

* Counsel of Record

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