

Supreme Court of the United States.

KSR INTERNATIONAL CO., petitioner,
v.
TELEFLEX INC., et al.

May 25, 2006.

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This brief is submitted in response to the order of this Court inviting the Solicitor General to express the views of the United States. In the view of the United States, the petition for a writ of certiorari should be granted.

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DISCUSSION

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The Federal Circuit's teaching-suggestion-motivation test subjects persons challenging the validity of a patent, as well as PTO's patent examiners, to substantial obstacles in establishing obviousness beyond those that [Section 103\(a\)](#) and this Court's decisions prescribe. As this case aptly demonstrates, the Federal Circuit's rigorous and inflexible application of its test alters *Graham's* functional approach to the nonobviousness inquiry in a way that unnecessarily sustains patents that would otherwise be subject to invalidation as obvious.

The Federal Circuit's test departs from this Court's precedents because it treats a particular method of demonstrating obviousness - namely, proof that the prior art taught, suggested, or provided a motivation for combining the prior art references - as the *exclusive* means of showing obviousness. As the court of appeals stated in this case,

When obviousness is based on teaching of multiple prior art references, the movant *must* also establish some "suggestion, teaching, or motivation" that would have led a person of ordinary skill to combine the relevant prior art teachings *in the manner claimed*.

While this Court's flexible approach allows ample room to rely on such teachings, suggestions, or motivations as a sufficient basis for a finding of obviousness, see [United States v. Adams](#), 383 U.S. 39, 47 (1966), the Federal Circuit's test mandates that showing as a prerequisite to an obviousness determination in any case involving a novel combination of previously known elements. * * *

The Federal Circuit's test creates a substantial obstacle to showing that a claimed invention that simply combines known features without substantial innovation would have been obvious, because the test requires the party challenging the patent to come forward with affirmative evidence in the prior art of a teaching, suggestion, or motivation to combine the features. See, e.g., [In re Kotzab](#), 217 F.3d 1365, 1370-1371 (Fed. Cir. 2000); [Winner Int'l Royalty Corp. v. Wang](#), 202 F.3d 1340, 1348-1349 (Fed. Cir. 2000); [In re Rouffet](#), 149 F.3d 1350, 1357 (Fed. Cir. 1998). That showing may be difficult or impossible even though the combination, on its face, would have been obvious. For example, such affirmative evidence may be lacking if the claim arose in a newly emerging technical field or if the combination was so obvious to persons skilled in the art that no one would have had need or incentive to record the trivial extension of the art. See John R. Thomas, [Formalism at the Federal Circuit](#), 52 Am. U. L. Rev. 771, 801-802 (2003). [FN6]

FN6. Indeed, the Federal Circuit's approach has led it to hold that " '[c]ommon knowledge and common sense,' even if assumed to derive from the [PTO's] expertise, do not substitute" for evidence of a "specific hint or suggestion" to combine prior art. See [In re Lee](#), 277 F.3d 1338, 1344- 1345 (2002). Thus, even when prior art is closely analogous

to the invention at issue, the court has required evidence showing a particular suggestion or motivation to combine the prior art to create the invention. See [In re Dembiczak, 175 F.3d 994, 997, 1000 \(Fed. Cir. 1999\)](#) (lawn trash bag having a Halloween pumpkin design is not prima facie obvious in the absence of evidence of suggestion to combine normal trash bag with references describing pumpkin designs on paper bags).

The Federal Circuit states that the teaching, suggestion or motivation

may be found explicitly or implicitly: 1) in the prior art references themselves; 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures *15 in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, "leading inventors to look to references relating to possible solutions to that problem."

The court's seemingly helpful observation that the teaching, suggestion, or motivation may be found "explicitly or implicitly" has not, in practice, substantially reduced the burden that its test imposes. This case is illustrative. The district court found that the Asano patent revealed all of the elements of Claim 4 of the Engelgau patent except the mounting of a pivot-actuated electronic sensor on the adjustable pedal assembly support structure, and that other manufacturers had mounted such sensors on non-adjustable pedal assembly support structures. See *id.* at 42a-44a. The court of appeals nevertheless concluded that a mechanical engineer with experience in pedal assembly faced with the problem of mounting an electronic sensor on an adjustable pedal assembly would not be implicitly motivated to transfer the known technique for mounting the electronic sensor on the support structure of non-adjustable assemblies to adjustable assemblies. See *id.* at 11a-13a; see also 13a-15a (rejecting the district court's alternative bases for finding a teaching, suggestion, or motivation to combine the elements). The Federal Circuit justifies its rigid teaching-suggestion-motivation test as a necessary measure to eliminate the possibility of "hindsight-based obviousness analysis." Pet. App. 6a-7a (quoting [In re Dembiczak, 175 F.3d 994, 999 \(Fed. Cir. 1999\)](#)); see *16 [Ruiz v. A.B. Chance Co., 234 F.3d 654, 665 \(Fed. Cir. 2000\)](#). While an inquiry into teaching, suggestion, or motivation may shed light on the question of obviousness, this Court did not perceive a need in *Graham* or subsequent cases to employ such a rigid prophylactic test to prevent courts or patent examiners from "read[ing] into the prior art the teachings of the invention in issue." [Graham, 383 U.S. at 36](#). The Federal Circuit's test effectively constricts this Court's guidance in *Graham* respecting the nonobviousness inquiry, it fails to account adequately for the problem-solving abilities of persons of ordinary skill in the art, and it underestimates the capabilities of courts and patent examiners to "resist the temptation" of hindsight and to consider fairly the question of obviousness. See *ibid.* Moreover, if there is a need for the Federal Circuit's strict measures to guard against the possibility of hindsight, this Court should make that decision itself.

Supreme Court of the United States.
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August 22, 2006.

Brief of Intellectual Property Law Professors as Amici Curiae in Support of
Petitioner

Amici are fourteen law professors who teach and write about intellectual property at law schools within the United States and have an interest in the proper interpretation and application of intellectual property law.

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*2 SUMMARY OF THE ARGUMENT

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The Federal Circuit has adopted a test for obviousness which is inconsistent with this Court's precedent and allows patents to issue on obvious inventions. The Federal Circuit's test denies a patent on a combination of previously available technology only when the patent examiner or a litigation opponent can present evidence of a suggestion, motivation, or teaching to combine in the prior art. Without such a *3 "suggestion to combine," a claimed invention is never deemed obvious,

regardless of the circumstances surrounding its development. While this "suggestion test" is framed as a factual inquiry, it effectively swallows the legal inquiry into obviousness and imposes an inappropriately low standard. The suggestion test's focus on evidence of what could be done by combining the prior art marginalizes the PHOSITA, equating ordinary skill with knowledge and motivation and ignoring the aspect of ordinary skill comprising routine experimentation and application of ordinary tools, methods, and problem-solving abilities.

Because a prima facie showing of obviousness cannot be made without evidence of a "suggestion to combine" prior art references, the Federal Circuit's approach also turns this Court's observation that the inventive context may be relevant to assessing obviousness into a one-way ratchet of "objective indicia of nonobviousness" which can be used only in support of patent issuance. Compare [Graham v. John Deere Co.](#), 383 U.S. 1, 17-18 (1966) ("[S]econdary considerations ... might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevance.") with [Gambro Lundia AB v. Baxter Healthcare Corp.](#), 110 F.3d 1573, 1579 (Fed. Cir. 1997) (referring to "the fourth prong of the obviousness determination - the objective indicia of nonobviousness"); [Hughes Tool Co. v. Dresser Inds.](#), 816 F.2d 1549, 1556 (Fed. Cir. 1987) (referring to "objective indicia of nonobviousness (the so-called 'secondary considerations' "). Framed in this way, the obviousness inquiry ignores social, economic, and technical changes that might render particular advances obvious upon the application of ordinary skill in the art.

Besides its substantive failings, the Federal Circuit's approach fails to take advantage of patent examiner expertise. "[T]he primary responsibility for sifting out unpatentable material lies in the Patent Office," [Graham](#), 383 U.S. at 18. *4 Federal Circuit precedent requires patent examiners to present evidence in the record when seeking to rely on the common knowledge of those skilled in the art or the nature of the problem to be solved to meet the suggestion requirement. See, e.g., [In re Lee](#), 277 F.3d 1338, 1345 (Fed. Cir. 2002). By imposing excessively stringent evidentiary requirements and framing the ultimate judgment of obviousness as essentially a factual inquiry, the Federal Circuit's approach hampers the PTO's application of its expertise to the obviousness question. This is particularly unfortunate since the ex parte nature of patent examination leaves the patent examiners as the only available representatives of the "person having ordinary skill in the art" during examination. Despite these limitations imposed on the examiners' ability to weed out obvious patent claims, issued patents that combine prior technology are afforded a presumption of validity which can be overcome only by clear and convincing evidence of a suggestion, motivation, or teaching to combine.

The perspective of the "person of ordinary skill in the art" must be brought back into its rightful place in the legal inquiry into obviousness. A robust inquiry into the level of ordinary skill in the art - which considers not only what is already known in a particular field, but also what is within the reach of ordinary skill, including routine experimentation and application of tools, methods, and problem-solving abilities - should be undertaken as a basis for the legal assessment of obviousness.

The consideration given to the technical and social context in which a claimed invention was made should expand to incorporate factors suggesting that a claimed invention was an obvious application of ordinary skill, rather than being confined to a one-sided inquiry into indicia of nonobviousness. With the Graham paradigm thus reinstated, the patentability standard would better serve its Constitutional purpose of promoting technological progress.

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August 22, 2006.

On Writ Of Certiorari To The United States Court Of Appeals For The Federal
Circuit

Brief of Economists and Legal Historians as Amici Curiae in Support of
Petitioner

This brief is filed on behalf of the Economists and Legal Historians identified in Appendix A (Historians). [FN1] Historians

teach and write about technological development and United States patent laws. * * *

SUMMARY OF THE ARGUMENT

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In [Graham v. John Deere Co., 383 U.S. 1 \(1966\)](#), the Court articulated the purpose of the obviousness standard - to limit patents to inventions that would not have been made but for the patent incentive - and specified a methodology for applying it. Additional guidance is needed, however, for proper understanding and application of the standard. Historians suggest that the Court restate the purpose of the standard as to prohibit patents on inventions that could have been made within a reasonable period of time and within reasonable budgetary constraints. This restatement clarifies that the Graham methodology mandates an inquiry requiring both technical expertise and policy judgment. The proposed restatement will lead over time to more reasoned analysis by the Patent Office and the courts. In contrast, the current standards being applied by the Patent Office and the Federal Circuit - particularly the teaching, suggestion, or motivation to combine test created by the Federal Circuit and applied in this case - conflict with the Court's jurisprudence, are applied without sufficient sensitivity to the technological context at a particular time, and permit patents to issue and to be held valid for insignificant contributions to the art.

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ARGUMENT

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II. The Graham Approach to Determining Patentability is Sound, But Requires Further Clarification for Its Proper Understanding and Application by the Patent Office and the Courts.

As the Court held in Graham, the purpose of the obviousness standard is "to develop some means of weeding out those inventions which would not be disclosed or devised but for the inducement of a patent." [383 U.S. at 11](#). [FN26] This statement of purpose takes into account the different incentives that exist to make inventions and the different means of appropriating returns from inventions. [FN27] *16 This statement of purpose, however, does not readily distinguish when the patent incentive is needed, given that "there is little doubt that ... routine research would be done in the absence of a patent system, assuming the market is important enough." [FN28]

This statement of purpose, moreover, fails to articulate a relevant time frame over which to assess whether new inventions would otherwise have been "disclosed or devised." See [Atl. Works, 107 U.S. at 200](#) (ordinary mechanics continuously make improvements and thus inventions "naturally and spontaneously occur"). The legislative language requires only that the judgment of obviousness must be based on the state of the art "at the time the invention was made." [35 U.S.C. § 103\(a\)](#). But obviousness must be assessed by evaluating what will occur in the future (based on analysis informed by looking at the past). Because the articulation in Graham does not directly address how quickly the art would develop, the Patent Office and the courts have failed adequately to consider how quickly the invention might spontaneously occur. [FN29]

*17 The Graham formulation also contains a conceptual problem that encourages errors of analysis. Although a patent provides an economic incentive, this Court's case law makes clear that the obviousness determination is a technical judgment regarding the capability of those skilled in the art to make the invention. Obviousness does not and should not normally involve any consideration of the economic motivations in the art to create the invention. [FN30]

A clearer restatement of the purpose of the obviousness standard is thus needed. Historians suggest that the Court hold that the obviousness inquiry is designed to prohibit patents on inventions that could have been made by those skilled in the art within a reasonable period of time (following the time that the invention at issue was actually made) and within reasonable budgetary constraints. Historians believe that this standard is implicit in the Court's holding in Hotchkiss that an invention is unpatentable if it requires "no more ingenuity or skill ... to construct ... than that possessed by an ordinary mechanic acquainted with the business." [52 U.S. \(11 How.\) at 265](#). [FN31] Some threshold of time and effort is required to distinguish patentable from unpatentable inventions. The Court's precedents regarding combinations functioned as a proxy for directly assessing how quickly the invention would be "devised or disclosed" and *18 whether that should be considered quickly enough. Direct assessment of these questions requires more explicit application of technical expertise and more explicit

articulation of policy judgments.

Because inventive efforts are limited by time and budgetary constraints, persons having ordinary skill in the art normally will experiment only with combinations having reasonable expected probabilities of discovering new or improved functions. Unless the reward is particularly great or they have unusually large institutional or individual resources, ordinary artisans cannot experiment with every possible combination. For this reason, this Court held in the companion case to *Graham* that the ability to repetitively combine all known prior art substitutes does not necessarily demonstrate obviousness, particularly if the prior art discouraged an expectation of success (which is commonly referred to as teaching away from the solution). See [United States v. Adams, 383 U.S. 39, 51-52 \(1966\)](#) (the combination battery at issue required a person skilled in the art to "ignore ... long-accepted factors, [that] when taken together, would, we believe, deter any investigation into such a combination"). [FN32] Conversely, as recognized by the Court in *Concrete Appliances Co.*, once an exogenous technology shift occurs, skilled artisans will rapidly apply new technology to create new machines and processes having improved functions that *19 earlier would have been thought unlikely to succeed. See 269 U.S. at 284. [FN33]

Significantly, the restatement Historians propose, like the case law it derives from, poses only a technical question. It requires determination of the expectation of success in achieving an inventive contribution of a particular magnitude within reasonable (as determined by the Patent Office or the courts) time and budgetary constraints. Nothing in this standard requires evaluation of motivations - economic or otherwise - to make the invention at issue, even though a patent might provide economic motivations to do so. Rather, the standard takes into account the degree of innovation that would occur in a field without considering patentability.

* * *

The Federal Circuit's teaching, suggestion, or motivation to combine test, moreover, conflicts with this Court's approach to obviousness in a number of important ways. [FN44] First, it wrongly imposes an additional and unwarranted evidentiary requirement on the legal judgment of obviousness, [FN45] in a misguided effort to prevent "hindsight" bias. In *25 re [Kahn, 441 F.3d 977, 986-87 \(Fed. Cir. 2006\)](#). [FN46] As noted above, prior art suggestions to combine could demonstrate obviousness, but were not previously required in order to do so. The Federal Circuit test thus fails to permit consideration of developments in technology or motivations shortly before the date of invention, which had not yet resulted in contemplation of the particular combination. It thereby eliminates "foresight" that was part of the skill in the art at the time of invention. As recognized by Justice Frankfurter in dissent in [Marconi Wireless Telegraph Co. of Am. v. United States, 320 U.S. 1 \(1943\)](#), the "real question is how significant a jump is the new disclosure from the old knowledge." *Id.* at 62. After warning against "[r]econstruction by hindsight," Justice Frankfurter emphasized that "the history of thought records striking coincidental discoveries - showing that the new insight first declared to the world by a particular individual was 'in the air' and ripe for discovery and disclosure." *Id.* For this reason, the Court held in *Concrete Applications Co.* that substantial attention must be paid to developments in technology just before the invention was made. See [269 U.S. at 184](#). [FN47]

*26 Second, the Federal Circuit's test improperly raises the unwarranted evidentiary burden even higher, by requiring prior art references that might suggest the combination to address the "precise problem" solved by the patentee. [Teleflex Inc., 119 Fed. Appx. at 288](#). This eviscerates the "analogous arts" doctrine, which had defined the contents of the prior art available to skilled artisans. See [Dann v. Johnston, 425 U.S. 219, 227-29 \(1976\)](#); [In re Clay, 966 F.2d 656, 658-59 \(Fed. Cir. 1992\)](#). Under that doctrine, once the reference was held analogous, it was available without restriction both for combination of its contents and for what it contemplated.

Third, the Federal Circuit's test converts the technical capability of the skilled artisan into a business motivation or research imperative, i.e., it changes the potential to create the invention from a "could" into a "would." See, e.g., [Kahn, 441 F.3d at 988](#) ("[would] an artisan ... confronted by the same problems ... have selected the various elements ... and combined them in the manner claimed") (quoting [Princeton Biochemicals, Inc. v. Beckman Coulter, Inc., 411 F.3d 1332, 1337 \(Fed. Cir. 2005\)](#)). This conflicts with this Court's precedents holding that, absent unusual functions in the combination, the person skilled in the art is presumed capable of making substitutions of known elements without regard to motivations to do so. See, e.g., [Dunbar, 94 U.S. at 199](#).

Fourth, the Federal Circuit's test and related doctrinal developments alter the *Graham* approach to secondary *27 considerations. *Graham*, like earlier cases, expressed skepticism regarding the relevance and strength of secondary consideration evidence. [FN48] The Federal Circuit, however, has required that secondary consideration evidence always be considered, regardless of the results of the direct technological inquiry. [FN49] The Federal Circuit thus has elevated

secondary considerations into a "quasi-presumption" of patentability. [FN50] Secondary consideration evidence cannot establish a prima facie case of obviousness that requires a teaching, suggestion, or motivation to combine in the prior art; it can be used only to rebut such a case. As this Court has recognized, however, commercial success evidence is highly suspect, because "market-related factors, as opposed to sheer technological superiority" are theoretically and empirically much more likely to determine commercial success. [FN51] Although failure of others is a better and more direct indicator of technological achievement, [FN52] it also must be subjected to careful scrutiny, particularly given the phenomenon of simultaneous invention. See, e.g., [Toledo Pressed Steel Co., 307 U.S. at 356](#) (discounting evidence *28 regarding two prior failures unaccompanied by evidence of awareness of the relevant prior art, and noting the absence of any evidence of "widespread effort to solve the problem here involved").

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***1a APPENDIX A - AMICI CURIAE [FN*]**

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