

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 *AMICI CURIAE* CISCO SYSTEMS INC.,
GENERAL MOTORS CORPORATION, HALLMARK
CARDS, INCORPORATED, FORTUNE BRANDS INC.
AND ELECTROLUX NORTH AMERICA
IN SUPPORT OF REVERSAL**

WILLIAM R. STEIN
ERIC S. PARNES
HUGHES HUBBARD &
REED LLP
1775 I Street, N.W.
Washington, DC 20006
(202) 721-4600

PETER A. SULLIVAN
Counsel of Record
HUGHES HUBBARD &
REED LLP
One Battery Park Plaza
New York, New York 10004
(212) 837-6000

TABLE OF CONTENTS

| | Page |
|---|------|
| TABLE OF AUTHORITIES..... | iii |
| INTEREST OF THE <i>AMICI CURIAE</i> | 1 |
| SUMMARY OF THE ARGUMENT..... | 3 |
| ARGUMENT..... | 3 |
| I. SATISFYING THE SUGGESTION TEST SHOULD NOT BE A REQUIREMENT FOR CHALLENGING PATENTABILITY UNDER SECTION 103 | 3 |
| A. The Suggestion Test Cannot Be Reconciled With The Precedents Of This Court ... | 4 |
| B. The Suggestion Test Sets Too Low A Bar To Patentability..... | 6 |
| C. The Suggestion Test Improperly Transforms The Ultimate Question Of Obviousness Into A Question Of Fact | 9 |
| II. THIS COURT SHOULD REAFFIRM THE GRAHAM ANALYSIS AND REVERSE THE JUDGMENT OF THE COURT OF APPEALS..... | 10 |
| A. The Graham Analysis Provides Sufficient Guidance For Courts To Decide Patentability Under Section 103 | 10 |
| B. The Graham Factors Provide A More Flexible Approach To Determining Patentability | 12 |
| 1. Fast-Developing Technology And The Differences In The Prior Art..... | 13 |
| 2. Art-Specific Principles And The Knowledge Of Ordinarily Skilled Artisans | 15 |

TABLE OF CONTENTS—Continued

| | Page |
|---|------|
| 3. Focus On The Problem To Be Solved... | 15 |
| C. The Judgment Of The Federal Circuit Should Be Reversed..... | 17 |
| CONCLUSION | 17 |

TABLE OF AUTHORITIES

| CASES | Page |
|--|---------------|
| <i>Bonito Boats, Inc. v. Thunder Craft Boats, Inc.</i> , 489 U.S. 141 (1989) | 5-6 |
| <i>Brown & Williamson Tobacco Corp. v. Philip Morris Inc.</i> , 229 F.3d 1120 (Fed. Cir. 2000)..... | 8 |
| <i>Concrete Appliances Co. v. Gomery</i> , 269 U.S. 177 (1925)..... | 14 |
| <i>Dann v. Johnston</i> , 425 U.S. 219 (1976) | 5 |
| <i>In re Dembiczak</i> , 175 F.3d 994 (Fed. Cir. 1999)... | 7 |
| <i>Dow Chemical Co. v. Halliburton Oil Well Cementing Co.</i> , 324 U.S. 320 (1945) | 5 |
| <i>In re Gartside</i> , 203 F.3d 1305 (Fed. Cir. 2000)..... | 7 |
| <i>In re Gorman</i> , 933 F.2d 982 (Fed. Cir. 1991) | 7 |
| <i>Graham v. John Deere Co.</i> , 383 U.S. 1 (1966) | <i>passim</i> |
| <i>Great Atlantic & Pacific Tea Co. v. Supermarket Equip. Corp.</i> , 340 U.S. 147 (1950)..... | 11 |
| <i>Group One, Ltd. v. Hallmark Cards, Inc.</i> , 407 F.3d 1297 (Fed. Cir. 2005) | 8, 10, 13 |
| <i>Group One, Ltd. v. Hallmark Cards, Inc.</i> , No. 97-1224-CV, 2004 WL 3528282 (W.D. Mo. Feb. 20, 2004)..... | 8 |
| <i>Hotchkiss v. Greenwood</i> , 52 U.S. 248 (1850) | 11, 17 |
| <i>In re Kahn</i> , 441 F.3d 977 (Fed. Cir. 2006)..... | 4, 5 |
| <i>Karsten Mfg. Corp. v. Cleveland Golf Co.</i> , 242 F.3d 1376 (Fed. Cir. 2001) | 9 |
| <i>Mandel Bros., Inc. v. Wallace</i> , 335 U.S. 291 (1948)..... | 5, 9 |
| <i>Omark Indus., Inc. v. Colonial Tool Co.</i> , 672 F.2d 362 (3d Cir. 1982) | 9 |
| <i>Paramount Publix Corp. v. American Tri-Ergon Corp.</i> , 294 U.S. 464 (1935) | 5, 14 |
| <i>Peters v. Hanson</i> , 129 U.S. 541 (1889)..... | 5, 11 |
| <i>Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.</i> , 75 F.3d 1568 (Fed. Cir. 1996)..... | 8 |

TABLE OF AUTHORITIES—Continued

| | Page |
|---|---------------|
| <i>In re Rouffet</i> , 149 F.3d 1350 (Fed. Cir. 1998)..... | 4, 8 |
| <i>Sarkisian v. Winn-Proof Corp.</i> , 688 F.2d 647 (9th Cir. 1982)..... | 9 |
| <i>In re Sernaker</i> , 702 F.2d 989 (Fed. Cir. 1983)..... | 4 |
| <i>In re Vaeck</i> , 947 F.2d 488 (Fed. Cir. 1991)..... | 7 |
| <i>Wallace v. Mandel Bros., Inc.</i> , 67 F. Supp. 814 (N.D. Ill. 1946)..... | 9 |
| <i>Wallace v. Mandel Bros., Inc.</i> , 164 F.2d 861 (7th Cir. 1947)..... | 9 |
| <i>Winner Int'l Royalty Corp. v. Wang</i> , 202 F.3d 1340 (Fed. Cir. 2000)..... | 7, 9 |
| STATUTES | |
| 35 U.S.C. § 102 | 7 |
| 35 U.S.C. § 103 | <i>passim</i> |
| OTHER | |
| Thomas Kuhn, <i>The Structure of Scientific Revo- lutions</i> (3d ed. 1996)..... | 13 |
| Robert P. Merges, <i>Uncertainty and the Standard of Patentability</i> , 7 High Tech. L.J. 1 (1992)..... | 16 |
| United States Patent & Trademark Office, <i>Class Arranged By Art Unit</i> , http://www.uspto.gov/ web/offices/opc/documents/caau.pdf | 15 |
| United States Patent & Trademark Office, <i>Man- ual Of Patent Examining Procedure</i> (8th ed. 2001)..... | 15 |

IN THE
Supreme Court of the United States

No. 04-1350

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 *AMICI CURIAE* CISCO SYSTEMS INC.,
GENERAL MOTORS CORPORATION, HALLMARK
CARDS, INCORPORATED, FORTUNE BRANDS INC.
AND ELECTROLUX NORTH AMERICA
IN SUPPORT OF REVERSAL**

INTEREST OF THE AMICI CURIAE

Amici Curiae Cisco Systems Inc., General Motors Corporation, Hallmark Cards, Incorporated, Fortune Brands Inc. and Electrolux North America respectfully submit this brief in support of Petitioner, KSR International Co., urging that this Court reverse the judgment of the United States Court of Appeals for the Federal Circuit because it applies a test for obviousness under Section 103(a) of the Patent Act, 35 U.S.C. § 103(a) (2000), that is inconsistent with Section 103(a) and this Court's precedent, and because this test provides too lax a standard for patentability.¹

¹ The parties have consented to the filing of this brief. Pursuant to Rule 37.6, *amici* represent that this brief was not authored in part or in whole by counsel for any party, and that no person or entity other than *amici* has made a monetary contribution to the preparation or submission of this brief.

Amici are large companies that rely on the patent system to protect their innovations. Cisco Systems is a company of over 38,000 employees worldwide that designs and sells network equipment that helped create the Internet as it exists today. General Motors is a company of 327,000 people worldwide and is the world's largest automaker. It manufactures and sells cars and trucks in 33 countries under the following brands: Buick, Cadillac, Chevrolet, GMC, GM Daewoo, Holden, Hummer, Opel, Pontiac, Saab, Saturn and Vauxhall. The adjustable pedal assembly at issue in this case was supplied to GM for use on certain of its light trucks. Hallmark is known worldwide for its greeting cards, and it also produces a wide range of gifts, keepsakes, books and decorative products. Fortune Brands is a leading consumer products company whose subsidiaries engage in the manufacture, production and sale of home and hardware products, golf products, and wine and spirits. Its brands include Titleist, Moen, KitchenCraft, and Master Lock. Electrolux North America is part of Electrolux Group, a company of over 57,000 employees worldwide that is a global leader in home appliances and appliances for professional use, selling under the Electrolux, AEG-Electrolux, Eureka and Frigidaire brands.

In addition to relying on the patent system to protect their innovations, *amici* also contend with the costs of a patent system that issues incremental patents that only provide routine variations to the state of the art. For example, the *amici* have found that the proliferation of large numbers of obvious patents has increased greatly the potential for inadvertent infringement. Some *amici* have found that the lack of access to prior art in the software area makes it exceedingly difficult to invalidate a software patent under the Federal Circuit's suggestion test. Some have been confronted with claims of patent infringement on purported inventions involving technologically trivial subject matter, where the

patent was made possible because of the low bar to patentability resulting from the suggestion test.

Amici believe that the Federal Circuit's current interpretation of Section 103(a) hurts innovation. The suggestion test allows patents to be issued for insignificant extensions of existing technology. *Amici* respectfully urge this Court to reestablish the balance in the patent laws and reassert the *Graham* test—without a suggestion requirement—as the appropriate test for patentability under Section 103.

SUMMARY OF THE ARGUMENT

The Federal Circuit's suggestion test is an incorrect statement of the law as established by this Court in *Graham*. The suggestion test has preempted many of the legal principles developed by this Court over more than 150 years of jurisprudence, and has replaced it with an inferior test of patentability. The test diverges from the teachings of this Court because it establishes too low a bar to patentability and because it invades the province of the trial court in deciding validity under Section 103, a question of law.

The Court should reverse the judgment of the Court of Appeals on the basis of the *Graham* test. The *Graham* test gives sufficient protection against hindsight reconstruction and is faithful to the letter of Section 103 and the spirit of the Supreme Court cases that were codified by Section 103.

ARGUMENT

I. SATISFYING THE SUGGESTION TEST SHOULD NOT BE A REQUIREMENT FOR CHALLENGING PATENTABILITY UNDER SECTION 103.

This Court in *Graham* established the framework for deciding patentability under Section 103 of the Patent Act of 1952. The Court in *Graham* laid out three factual inquiries:

“the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). It also identified several “secondary considerations” that “may have relevancy” in making the obviousness determination. *Id.* at 17-18.

Under the current form of the suggestion test, in addition to determining the *Graham* factors, a trier of fact must determine “whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.” *In re Rouffet*, 149 F.3d 1350, 1356 (Fed. Cir. 1998) (internal quotations and citations omitted). To satisfy the test, there must be some proven “teaching, suggestion, or motivation” that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed in a patent. *Id.*

A. The Suggestion Test Cannot Be Reconciled With The Precedents Of This Court.

The suggestion test is not a part of this Court’s jurisprudence. It evolved as a separate doctrine in the jurisprudence of one of the predecessor courts of the Federal Circuit Court of Appeals, the Court of Customs and Patent Appeals, and the Federal Circuit adopted the test early in its history. *See In re Sernaker*, 702 F.2d 989, 994-96 (Fed. Cir. 1983). From that point forward, the Federal Circuit cited the suggestion test by reference to its own precedent, and not to any precedent of this Court. In this case, the court cited the suggestion test in this way. (*See* Pet. App. A at 6a.)

Recently, a panel of the Federal Circuit has tacitly acknowledged the suggestion test’s independent provenance. In *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), the court noted that its “predecessor court was the first to articulate the motivation-suggestion-teaching test.” *Id.* at 986.

Nevertheless, the *Kahn* court claimed that the suggestion test is an extension of the “analogous art” test, which has roots in the first *Graham* factor (determining the relevant prior art). *Id.* at 987-88. But no such connection between these two tests exists. The analogous art test is subsumed in the first *Graham* factor. The suggestion test is a completely separate, additional requirement. Under *Graham*, the presence of analogous art that is pertinent to the problem to be solved is alone evidence of obviousness. To prove obviousness under the Federal Circuit’s analysis, one needs to show not only the presence of analogous art, but also that there was a motivation, suggestion or teaching in the prior art to combine the references of that analogous prior art to arrive at the claimed invention.

The flaw in the *Kahn* court’s reasoning is fully realized when one considers that the *Graham* case would have been decided differently had the Court applied the suggestion test. None of the prior art discussed in *Graham* suggested inverting the plow shank and hinge plate in the manner chosen by the patentee. Nevertheless, this Court found this to be a simple design change, well within the skill of a person of ordinary skill in the art, and hence obvious.² 383 U.S. at 25-26.

When the scales of patentability tip too far towards granting incremental patents, they overstep the limited congressional grant in the Constitution. In *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989), this Court noted that “[t]he Patent Clause itself reflects a balance

² In addition to *Graham* itself, *Dann v. Johnston*, 425 U.S. 219 (1976), *Mandel Bros., Inc. v. Wallace*, 335 U.S. 291 (1948), *Dow Chemical Co. v. Halliburton Oil Well Cementing Co.*, 324 U.S. 320 (1945), *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U.S. 464 (1935), and *Peters v. Hanson*, 129 U.S. 541 (1889), all likely would have gone the other way if a suggestion test were employed. (See Brief of Amicus Curiae Cisco Systems, *et al.* in support of the petition for certiorari, at 10-13.)

between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the ‘Progress of Science and useful Arts.’” The Court in *Graham* noted the need to protect this balance:

The Congress in the exercise of the patent power may not overreach the restraints imposed by the stated constitutional purpose. Nor may it enlarge the patent monopoly without regard to the innovation, advancement or social benefit gained thereby. Moreover, Congress may not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available. Innovation, advancement, and things which add to the sum of useful knowledge are inherent requisites in a patent system which by constitutional command must ‘promote the Progress of *** useful Arts.’ This is the standard expressed in the Constitution and it may not be ignored.

383 U.S. at 5-6. The suggestion test as applied can overreach the restraints imposed by the constitutional grant. The test does not focus on whether existent knowledge is removed from the public domain. The *Graham* framework—with its focus on the state of the prior art, the knowledge of the ordinarily skilled artisan, the differences between the claimed invention and the prior art, and secondary factors (in close cases)—hones in directly on the principles to be protected in the constitutional grant.

B. The Suggestion Test Sets Too Low A Bar To Patentability.

The suggestion test requires that the prior art itself offer some reason for making the jump from the prior art to the claimed invention. As the Federal Circuit has described the requirement, the prior art must indicate the desirability of making the jump and a reasonable expectation that the jump

will be successful. *See, e.g., In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). This inquiry typically unfolds in litigation as a process of linking prior art documents—patents, research articles, trade show brochures—to show that there was a suggestion, teaching or motivation somewhere in those documents to combine the documents in such a way as to arrive at the claimed invention.³

This process is a long way removed from the inquiry embodied in Section 103. The statute focuses on the differences between the claimed invention and the prior art, but emphasizes that it is the state of knowledge of the ordinarily skilled artisan that must provide the context for the answer of whether “the subject matter as a whole would have been obvious at the time the invention was made” 35 U.S.C. § 103(a) (2000). The Federal Circuit has instead emphasized the prior art over the knowledge of one of ordinary skill in the art, essentially defining the suggestion test in terms of the prior art—whether there was some teaching, suggestion or motivation in the prior art references themselves.

For example, in *In re Gorman*, 933 F.2d 982, 987 (Fed. Cir. 1991), the court stated that “[t]he references themselves must provide some teaching whereby the applicant’s combination would have been obvious.” The suggestion test, with its emphasis on “clear,” “particular” or “plain” evidence, and “rigorous” application, *e.g., Winner Int’l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999), *abrogated on other grounds by In re Gartside*, 203 F.3d 1305 (Fed. Cir. 2000), requires a showing that the prior art suggests the combination,

³ Prior art includes patents and printed publications. *See* 35 U.S.C. § 102 (2000). The critical date for establishing when art is “prior art” varies for the subsections of the statute. For example, it could be the date of invention, *see* § 102(a), or one year before the filing of a U.S. application, *see* § 102(b).

rather than a showing that the ordinarily skilled artisan's knowledge suggests it.

To be sure, several Federal Circuit cases speak of the suggestion coming from the knowledge of one of ordinary skill in the art or from the nature of the problem to be solved. *See, e.g., Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568 (Fed. Cir. 1996). These cases, however, are the exception, and they offer an illusory standard. The *Group One* case is a good example of this illusory standard. In defending the trial court's decision to set aside the jury verdict on obviousness, Hallmark argued on appeal that the jury had no reasonable basis upon which to support its determination because Hallmark provided un rebutted evidence that the problem to be solved would suggest solving it with the claimed invention. *Group One, Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297, 1304-05 (Fed. Cir. 2005). Group One did not attempt to refute the problem-to-be-solved evidence, and only argued in response that the prior art patents did not offer the required suggestion to combine. *Id.* at 1305. The court acknowledged that Group One did not address the problem-to-be-solved evidence "in so many words," *id.*, but it still reversed the trial court's that the Group One invention was "indubitably obvious," *Group One, Ltd. v. Hallmark Cards, Inc.* No. 97-1224-CV, 2004 WL 3528282, at *16 (W.D. Mo. Feb. 20, 2004).

In practice, the Federal Circuit requires "clear" or "particular" proof from the prior art references to overcome the presumption of validity. *See Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1125 (Fed. Cir. 2000). Otherwise, the determination is at risk for being deemed an improper "hindsight" reconstruction—an analysis that uses the patent itself as a starting point for combining the prior art references. *See, e.g., In re Rouffet*, 149 F.3d 1350, 1355-58 (Fed. Cir. 1998). This case and the *Group One* case are just two examples of how the suggestion test sets too low a bar to patentability.

**C. The Suggestion Test Improperly Transforms
The Ultimate Question Of Obviousness Into A
Question Of Fact.**

The suggestion test also undermines the holding of *Graham* that “the ultimate question of patent validity is one of law.” 383 U.S. at 17. Prior to the creation of the Federal Circuit, courts, not juries, routinely determined obviousness. *See, e.g., Wallace v. Mandel Bros., Inc.*, 67 F. Supp. 814 (N.D. Ill. 1946) (determining obviousness), *rev’d*, 164 F.2d 861 (7th Cir. 1947), *rev’d, Mandel Bros., Inc. v. Wallace*, 335 U.S. 291 (1948); *Omark Indus., Inc. v. Colonial Tool Co.*, 672 F.2d 362 (3d Cir. 1982) (affirming district court’s determination of obviousness after bench trial); *Sarkisian v. Winn-Proof Corp.*, 688 F.2d 647, 650 (9th Cir. 1982) (although factual findings may be made by a jury, “the court must determine obviousness as a matter of law”).

The *Graham* court noted three primary factors that should be decided by the finder of fact as a predicate to determining obviousness. Armed with the fact-finder’s determination of the factors, the court then must analyze the findings and determine whether the claimed invention was obvious to one of ordinary skill in the art. Thus, under *Graham*, there was a separate analytical step reserved for the court.

The obviousness analysis under the suggestion test does not operate like the analysis under *Graham*. The presence or absence of a suggestion to combine prior art references is treated as a question of fact, just like the other *Graham* factors. *See, e.g., Winner Int’l Royalty Corp.*, 202 F.3d at 1348. And the Federal Circuit equates the answer to the suggestion test with the answer to the ultimate question of patentability under Section 103(a), preempting the separate analytical step that *Graham* reserved for the court. *See id.* at 1349; *see also, e.g., Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1385 (Fed. Cir. 2001). By denominating the suggestion test as a separate finding of fact, the Federal

Circuit has effectively given the entire obviousness analysis to the fact finder. In doing so, it transformed a question of law into a question of fact.

The present case illustrates this point. Although no genuine issue of material fact existed as to the basic *Graham* factors, the Federal Circuit vacated and remanded the district court's grant of summary judgment on invalidity, holding that the question could not be determined as a matter of law, but was a factual question governed by the suggestion test. (Pet. App. A at 8a.) In the *Group One* case, the Federal Circuit reviewed the district court's decision to set aside the jury verdict, which was a general verdict of nonobviousness. 407 F.3d at 1303. Under the Federal Circuit's jurisprudence, one can give the jury a general verdict of obviousness because there is nothing left for the court to decide.

Transferring obviousness determinations from courts to juries diminishes the role of the Federal Circuit as a specialized patent court. To the extent that ultimate questions of obviousness are treated as factual questions and decided by juries, litigants are largely and often wholly deprived of access to summary adjudication and to meaningful post-trial or appellate review.

II. THIS COURT SHOULD REAFFIRM THE GRAHAM ANALYSIS AND REVERSE THE JUDGMENT OF THE COURT OF APPEALS.

A. The Graham Analysis Provides Sufficient Guidance For Courts To Decide Patentability Under Section 103.

There is no need to add the suggestion test to this Court's *Graham* framework. This Court's precedents have provided ample guidance and have established well-understood principles for determining obviousness.

Starting with the case of *Hotchkiss v. Greenwood*, 52 U.S. 248 (1850), this Court has laid out a comprehensive framework for establishing the patentability of an invention utilizing the concept of obviousness. Several principles of law have developed:

- The mere substitution of one material in place of another is not patentable where there is no change in the manner of working the material, no improvement in the material used to produce the result and no new result obtained. *Hotchkiss*, 52 U.S. at 266;
- An application of an old device to a new use is not patentable. *Hotchkiss*, 52 U.S. at 266; *Peters v. Hanson*, 129 U.S. 541, 557 (1889);
- Courts should determine the obviousness of combination patents “with a care proportioned to the difficulty and improbability of finding invention in an assembly of old items.” *Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152 (1950).

The Patent Act of 1952 codified the approach to patentability developed since *Hotchkiss*. *Graham* was the first Section 103 case to come before this Court after the enactment of the 1952 Patent Act. This Court clarified that the Patent Act was not meant to lower the bar to patentability or to replace the precedents of this Court, save perhaps to the extent any of those precedents could be read to require a “flash of genius.” *See Graham*, 383 U.S. at 16 & n.8. Finally, this Court noted, “[w]e believe that strict observance of the requirements laid down here will result in that uniformity and definiteness which Congress called for in the 1952 Act.” *Id.* at 18.

Graham continues to provide an appropriate framework for the analysis when it is strictly observed. The fact finder can identify the scope and content of prior art, defining scope by whether the art is in a field analogous to the claimed invention or reasonably related to the problem to be solved.

The fact finder can ascertain the differences that were found between the prior knowledge in the field and the claimed invention. The fact finder can then identify the level of ordinary skill in the art—those who do the work in this field, how educated and experienced they are, what kind of solutions to problems they have at their disposal. And the fact finder can consider any secondary considerations. Armed with this information, the court can weigh the findings and decide the ultimate legal conclusion of obviousness using the principles of law that have been developed, and other principles that will develop over time.

Using the *Graham* analysis, one could demonstrate the knowledge of one of ordinary skill in the art by showing solutions to similar problems in the field. Expert witnesses in the art can opine on what ordinarily skilled artisans understand about the art, with reasoning and examples sufficient to support their views. With this context and understanding of the prior art and the claimed invention, a court could easily go to the heart of the matter and decide obviousness. There is no reason to depart from this framework and add a suggestion test as a separate requirement of patentability.

B. The Graham Factors Provide A More Flexible Approach To Determining Patentability.

This Court in *Graham* envisaged “case-by-case development” of the law of obviousness. 383 U.S. at 18. This should result in a more flexible approach to proving or disproving obviousness than is the case using the suggestion test. Case-by-case development utilizing the *Graham* framework should improve the decision-making in three important respects: accounting for fast-developing technology and consumer trends; developing art-specific guidance; and focusing on the problem to be solved in the claimed invention.

1. *Fast-Developing Technology And The Differences In The Prior Art*

Rapid rises in the state of the art present difficulties in judging the obviousness of patents. The rapid release of new understanding coming from dramatic changes in the state of the art affects the manner in which innovators approach solving problems. In *The Structure of Scientific Revolutions*, Thomas Kuhn described the creation of a new scientific “paradigm” that changes the course of “normal science.” Thomas Kuhn, *The Structure of Scientific Revolutions* 165-66 (3d ed. 1996). One example is Einstein’s relativity as a paradigm shift from classical Newtonian mechanics. This paradigm shift focuses the creative energies of those working in the field away from the old paradigm and towards incorporating and applying the new paradigm into the scientific world-view. One aspect of this incorporation work is solving known problems using the new paradigm. Some of this applied work may itself be ground breaking, but other aspects may be readily understood based on the clear implications of the paradigm shift.

As with scientific paradigm shifts, there are technology paradigm shifts that take place from time to time. The shift will give rise to a flurry of activity to apply the newly understood technology to solve old problems. One striking example of such paradigm shifts can be seen in the rapid, wide-scale adoption of the Internet as a commercial and information exchange. Consumer tastes can also lead to changes in innovative focus. In the *Group One* case, Hallmark argued that no one paid any attention to the 50-year-old ribbon curling machine prior art until Hallmark conceived of a new ribbon product and required a machine to produce it. The germ of innovation was the marketing concept of a pre-packaged bow; the machine to create it was nothing more than a routine application of well-known engineering principles.

This Court recognized the impact of what would later be described as paradigm shifting in *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U.S. 464 (1935). In that case, the patent claimed a method for producing movies with sound by combining three prior art processes. There was no evidence cited in *Paramount Publix* that there was a teaching, suggestion, or motivation in the prior art to combine these processes in the manner claimed. This Court nevertheless invalidated the patent, finding that the advance in the patent was “ready at hand” and merely “awaited the public acceptance of the sound motion picture” *Id.* at 476. The paradigm shift was the public’s acceptance of sound motion pictures. Once accepted, it was a trivial matter to use the three prior art processes in combination.

In *Concrete Appliances Co. v. Gomery*, 269 U.S. 177 (1925), this Court noted a paradigm shift in the field of concrete handling. The claimed invention was made in the wake of a shift in construction practice from using dry mix concrete in building construction to using wet mix concrete. The claimed invention was an adaptation of a gravity feed fluid conveyor system—a system similar to those that had been used for centuries for supplying water, and more recently for supplying coal and grain—to supply wet concrete in building construction. This Court held that the claimed invention did not rise above ordinary mechanical skill:

The observations of common experience in the mechanical arts would lead one to expect that, once the feasibility of using “wet” concrete in building operations was established, the mechanical skill of those familiar with engineering and building problems would seek to make use of known methods and appliances for the convenient handling of this new building material.

269 U.S. at 184.

One needs to take into account any shift in the state of the art in reviewing the patentability of an invention under

Section 103. The decision-maker, be it the patent examiner in the case of the patent application or the court in deciding validity in an infringement litigation, must bring to the examination an appreciation of any quantum change in the level of skill in the art, change that often is not reflected in the paper record or published patent applications and technical references.

2. *Art-Specific Principles And The Knowledge Of Ordinarily Skilled Artisans*

The PTO reviews claims in many areas, including mechanics, electronics, pharmaceuticals, optics, biotechnology, nanotechnology, chemistry, and computer sciences. *See generally* United States Patent & Trademark Office, *Class Arranged By Art Unit*, <http://www.uspto.gov/web/offices/opc/documents/caau.pdf> (listing classes of claims). Each of these areas has developed a knowledge base that is unique to it, but also one that admits to certain principles and trends within the area. *Cf.* United States Patent & Trademark Office, *Manual Of Patent Examining Procedure* § 903.08(e) (8th ed. 2001). A framework that incorporates these principles and trends could provide more certainty and would be of tremendous benefit to patent applicants and litigants.

The suggestion test does not allow for such art-specific rule making. Since the analysis is highly fact-specific—how does prior art reference A fit with prior art reference B—it provides fewer opportunities for developing art-specific rules of general applicability in the area. The *Graham* framework would allow for art-specific rules to develop and thereby add more predictability to those determinations.

3. *Focus On The Problem To Be Solved*

Perhaps the *Graham* framework's greatest virtue is that it will require the PTO and the courts to re-center the focus on the crux of patentability—the problem to be solved. The

problem to be solved often guides our instinct as to the value of an invention. For example, those inventions that follow from the ingenuity of discovering a new want or need are most viscerally impressive. The maximum amount of risk-taking—investing precious time or resources chasing down potential dead-end research programs—is required of an inventor who foresees a problem to be solved that the public has not yet expressed. Success is quite speculative in such a case, but the social benefit of taking that risk and producing a useful result from it is high. See Robert P. Merges, *Uncertainty and the Standard of Patentability*, 7 High Tech. L.J. 1, 3-4 (1992) (arguing for commercial uncertainty as a standard for developing rules for patentability).

In a second group are those inventions that solve a known problem that had not been solved before. The quest to solve a problem that has vexed others is also a risky endeavor and is worthy of reward when solved.

In a third group are those inventions that solve a well-known problem but by other means. In this group, the least amount of risk is required. In some cases, real innovation is required to find a new solution to an old problem, but other times the solution is nothing more than the product of connecting the dots in the prior art. In this group, most of the dubious patents complained of by *amici* can be found.

These different groups require three different kinds of scrutiny. By discovering the want and inventing the solution, it is difficult to imagine an attack to validity that does not suffer from hindsight reconstruction. On the other hand, a solution to a problem that has already been solved by other means is more deserving of scrutiny. One could imagine, for example, that others in the art were satisfied with the known solutions and saw no need for even routine experimentation. The flexible *Graham* framework can grapple with these different groups of inventions, and the Federal Circuit and district courts can develop rules and principles to contend

with it, at a deeper level than has been accomplished through the suggestion test.

C. The Judgment Of The Federal Circuit Should Be Reversed.

The Federal Circuit's decision should be reversed. The prior art *Asano* patent discloses an adjustable pedal mechanism as is claimed in Claim 4 of the '565 Patent. One of ordinary skill in the art could apply *Asano* to a prior art electronic pedal position sensor and reasonably expect it to succeed. It was well understood by those of ordinary skill in the art that solutions like adjustable pedals that were adapted to mechanical accelerator pedals could be adapted to electric accelerators once electric accelerators became prevalent. Once a new form of accelerator mechanism became prevalent, it was a matter of routine skill to apply the improvements already existing in the prior mechanism to the new mechanism. All this amounts to is adapting an old mechanism to a new use, which would be obvious, and hence unpatentable, under the principles set forth in *Graham* and *Hotchkiss*.

CONCLUSION

For the foregoing reasons, the judgment of the Court of Appeals should be reversed.

Respectfully submitted,

WILLIAM R. STEIN
ERIC S. PARNES
HUGHES HUBBARD &
REED LLP
1775 I Street, N.W.
Washington, DC 20006
(202) 721-4600

PETER A. SULLIVAN
Counsel of Record
HUGHES HUBBARD &
REED LLP
One Battery Park Plaza
New York, New York 10004
(212) 837-6000