





KSR v. Teleflex:

Moving Toward a More Flexible Definition of Obviousness

BY GREGORY A. CASTANIAS, PETER G. THURLOW & MICHAEL DALLAL

The United States Supreme Court ruled in *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. ___, 127 S. Ct. 1727, 167 L. Ed. 2d 705 (April 30, 2007), that the United States Court of Appeals for the Federal Circuit had been applying a too-rigid standard for determining obviousness under Section 103 of the Patent Act and that the standard for determining obviousness consistent with Supreme Court precedent should be more expansive and flexible. Since the Supreme Court's decision, the Federal Circuit, district courts, and the United States Patent and Trademark Office ("PTO") have been taking just such a more expansive and flexible approach in determining obviousness by looking to several areas for motivation to combine prior art.

FACTS UNDERLYING THE *KSR V. TELEFLEX* CASE

An introduction to the facts of the *KSR* case is helpful as an example of the application of the Supreme Court's obviousness test to electro-mechanical technology. KSR and Teleflex are competitors in the design and manufacture of automobile-acceleration pedal systems, including adjustable pedals. Teleflex is the exclusive licensee of U.S. Patent No. 6,237,565 (the "Engelgau patent") and sued KSR for infringing claim 4, among other claims, of that patent. The Engelgau patent is directed to a mechanism for combining an electronic sensor with an adjustable automobile pedal so that the pedal's position can be transmitted to a computer that controls the throttle in the vehicle's engine. In particular, claim 4 included a requirement that the sensor be placed on a fixed pivot point.

In discussing the technical background of adjustable automobile pedals, the Supreme Court indicated that well before the parent application for the Engelgau patent was filed in 1999, the knowledge and motivation existed to create what claim 4 of the Engelgau patent claimed. The Court noted that inventors had been designing adjustable pedals since the 1970s. The Court cited U.S. Patent No. 5,010,782 ("Asano") as support for this assertion, noting that Asano revealed an adjustable pedal assembly that used a fixed pivot point. In regard to electronic sensors, the Supreme Court noted that U.S. Patent No. 5,241,936 (filed in 1991) disclosed a pedal that included an electronic sensor on a pivot point in the pedal assembly, and U.S. Patent No. 5,063,811 (filed in 1990) disclosed an electronic sensor disposed on a fixed part of the pedal assembly rather than one in or on the pedal's footpad. The Supreme Court also noted that self-contained modular sensors that could be taken off shelves and attached to various types of pedals and patents for sensors disposed on adjustable pedals were disclosed in prior art patents. Most important, the Supreme Court noted that the prior art was replete with motivation to create the invention in the Engelgau patent—several patents indicated that a fixed

pivot point in an adjustable pedal assembly was an ideal mount for a sensor.

THE TRIAL COURT AND FEDERAL CIRCUIT DECISIONS

The trial court granted summary judgment in KSR's favor, finding "little difference" between the prior art and the claims of the Engelgau patent and holding that claim 4 of the Engelgau patent was obvious. The trial court followed the Supreme Court's guidance in *Graham*, analyzing (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the difference between the prior art and the claimed invention, and (4) the extent of any objective indicia of nonobviousness (*i.e.*, secondary considerations). See *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966). In particular, the trial court noted that all of the features recited in claim 4 were taught by Asano, which was not cited by the examiner or Engelgau during prosecution of the Engelgau patent, and by other prior art.

The trial court also looked for a suggestion to combine the prior art in both the prior art itself and in reasonable inferences taken from the nature of the problem the prior art was trying to solve. The court found that several prior art sources had spoken of the undesirability of placing an electronic sensor at a movable point and that other sources taught the desirability of placing an electronic sensor at a pedal-assembly support member. Finally, the court noted that all of the prior art to be combined related to the same art—vehicle pedal systems. Once the court found a combination of prior art disclosing all of the features in the claim, along with a suggestion to combine those features, the court held claim 4 to be obvious.

On appeal, however, the Federal Circuit reversed the trial court's grant of summary judgment and ruled that the lower court had not been strict enough in applying the Federal Circuit's teaching, suggestion, and motivation ("TSM") test for determining obviousness. The Federal Circuit required

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that a person of ordinary skill must have been motivated to combine the prior art in the particular manner claimed. The Federal Circuit stated that this motivation exists when the prior art addresses the precise problem that the patentee was trying to solve. The Federal Circuit reversed and remanded because the trial court did not find a “specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of [the] invention” to attach an electronic control to the Asano assembly support bracket in the manner claimed in claim 4.

THE SUPREME COURT’S DECISION

In an opinion by Justice Kennedy, the Supreme Court rejected the “rigid approach” taken by the Federal Circuit, noting that throughout the Court’s engagement with the question of obviousness, its cases have set forth an “expansive and flexible approach,” which was inconsistent with the way that the Federal Circuit had been applying what the Court called its TSM test. According to the Supreme Court, courts are not rigidly bound to look only at prior art addressing the same exact problem for a specific principle prompting one of ordinary skill to modify the prior art in the exact manner claimed. A court may find motivation to combine prior art from interrelated teachings of multiple sources, design incentives, market forces, or the background knowledge of a person of ordinary skill. A court may also look in a field different from that of the claimed subject matter, as well as in the same field. Finally, a court may take into account creative steps and inferences that a person of ordinary skill would employ. The Court repeated an overarching theme through its opinion: whether a claimed improvement over prior art is nonobvious involves more than the predictable use of prior art elements according to their established functions. Any rigid application of the TSM test that limits an obviousness inquiry is in error.

The Supreme Court focused particular attention on the flaws in the Federal Circuit’s requirements for a finding of obviousness. For example, the Supreme Court noted that the Federal Circuit erred in holding that courts and patent examiners should look only to the problem the patentee was trying to solve. The correct approach, according to the Supreme Court, would be to ask whether the combination was obvious to a person with ordinary skill in the art. In addition, the Supreme Court noted that the Federal Circuit erred in assuming that a person of ordinary skill in the art

attempting to solve a problem would be led only to those elements of prior art designed to solve the same problem. In this instance, the Supreme Court noted that common sense teaches that familiar items “may have obvious uses beyond their primary purposes.” The Court declared that the person of ordinary skill in the art is a person of ordinary creativity, “not an automaton.”

Moreover, according to the Supreme Court, the Federal Circuit’s constricted approach to the obviousness inquiry led the Federal Circuit to conclude, in error, that a patent claim cannot be proved obvious merely by showing that the combination of elements was “obvious to try.” The Supreme Court stated that when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely to be an obvious product of ordinary skill and common sense, and not the product of innovation.

Despite these criticisms of the Federal Circuit’s approach, the Court did note that the TSM test prompted investigation for a reason to combine known prior art. This examination can be important because inventions usually rely upon established building blocks, so claimed inventions almost necessarily will be combinations of what is, in some sense, already known. Thus, one can find an invention obvious in hindsight, after seeing the combined invention in the patent along with the separate pieces of prior art. To facilitate an inquiry into a reason to combine, the Court said that any obviousness analysis should be “made explicit,” though that analysis may take into account broad sources of prior art and motivation to combine that prior art, as has been discussed above.

The Supreme Court concluded its opinion by taking the unusual step of applying the standards it had just announced to the facts of the case based on the summary-judgment record, holding that claim 4 *must* be found obvious. The Court noted, however, that following the principles described above may be more difficult in other cases because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement.



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Observations on Obviousness: Jackie Benn Reflects on the Impact of *KSR v. Teleflex*



In April 30, 2007, the Supreme Court ruled that the Court of Appeals for the Federal Circuit had applied the legal standard for obviousness in a too-narrow, too-rigid manner, inconsistent with Section 103 of the Patent Act and Supreme Court precedent (see feature article, “*KSR v. Teleflex*: Moving Toward a More Flexible Definition of Obviousness,” in this issue). That decision, *KSR v. Teleflex, Inc.*, is certain to have wide-ranging effects on the patent system.

New York partner Jackie Benn says that the Supreme Court’s decision in *KSR* makes obviousness under Section 103 easier to show but that it is not clear how much easier the new standard will make obviousness challenges, particularly in the biotech and pharmaceutical fields.

Nonetheless, she believes that the *KSR* decision and recent guidelines issued by the Patent and Trademark Office will make it more challenging to obtain patents, since *KSR* makes it easier for examiners to initially reject patent claims on the grounds of obviousness. This will put the onus on the applicant to supply evidence of patentability. Reliance on secondary considerations, such as unexpected results, will likely become even more important in obtaining patent protection.

“We should also see more patent applications than ever before go up on appeal to the Patent

and Trademark Office’s Board of Patent Appeals and Interferences,” says Jackie. “Lengthier, more extensive patent prosecution cases will be the norm. While many of our clients have been reluctant to go up on appeal, they will be forced to by new guidelines and patent rules.”

Patent diligence in the biotech arena is also likely to become more challenging as a result of the *KSR* decision. *KSR* concerned the mechanical arts, which tend to be predictable, whereas the biotech arts have long been recognized by the Federal Circuit to be unpredictable. Thus, the extent to which the Court of Appeals for the Federal Circuit will find *KSR* applicable to the biotech arts is uncertain. This uncertainty makes it more difficult now to access the strength of biotech patents that companies may be gaining as part of an acquisition.

With a Ph.D. in molecular biology, Jackie has both the scientific and legal experience to serve Jones Day clients well in biotech patent matters. She is one of about 15 scientists who have gone through Jones Day’s legal intern program, progressing from the nonlegal, scientific aspects of intellectual property to legal work while attending law school. Other former Jones Day interns bring doctoral degrees and experience in polymer chemistry, organic chemistry, immunology, and oncology to their law practices. ►►

COURT DECISIONS AND THE PTO'S APPLICATION OF THE OBVIOUSNESS STANDARD SINCE *KSR*

The Federal Circuit. The Federal Circuit, district courts, and the PTO have followed the Supreme Court's lead, taking a more expansive, flexible approach to determining obviousness under Section 103 since the High Court's *KSR* decision.

Since *KSR*, the Federal Circuit has provided some guidance on how it will analyze *prima facie* obviousness as well as secondary considerations. In *Leapfrog Enters. v. Fisher-Price, Inc.*, 485 F.3d 1157 (May 2007), the Federal Circuit's first decision analyzing obviousness after *KSR*, the court affirmed the district court's judgment that a patent to a children's learning device was obvious. The court found that the reason for combining prior art elements could come from "commonly understood benefits," such as decreased size, increased reliability, simplified operation, and reduced cost, as well as from common sense. The court faulted the patentee for not showing that the combination was "uniquely challenging or difficult." The court also noted that applying modern electronics to older mechanical devices has been commonplace in recent years. (The district court for the Eastern District of Michigan has expanded the possible interpretation of this language to mean that the particular mechanism selected for accomplishing the same goal is insignificant. See *Eaton Corp. v. ZF Meritor LLC*, No. 03-74844, 2007 WL 2822775 (September 2007).) Significantly, the panel in the *Leapfrog* case made no mention of any kind of TSM test.

In *In re Trans Tex. Holdings Corp.*, 498 F.3d 1290 (August 2007), a more recent case, the Federal Circuit affirmed a PTO Board of Patent Appeals and Interferences ("Board") rejection of claims to a financial management method and system. The Federal Circuit concluded that the Board did not err in concluding that it would have been obvious to combine an account feature for one loan type with another type of loan, citing language in *KSR* describing one of *KSR*'s overarching themes: "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." The Federal Circuit did not discuss any motivation to combine the prior art.

In *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295 (September 2007), the Federal Circuit analyzed jury instructions regarding obviousness. The Federal Circuit vacated and remanded part of a jury verdict of validity for three patents to a system and method for name translation

in internet telephone. The court considered the following pre-*KSR* jury instructions regarding obviousness:

If you find that a combination of items of the prior art showed each of the elements of the claims in suit, you must determine whether a person of ordinary skill in the art would have been motivated to combine the prior art references.

....

If you conclude that the prior art discloses all the elements of the claimed invention, but those elements are found in separate prior art references, you must then consider whether or not it would have been obvious to combine the elements.

To answer this question yes, you must determine that there was some suggestion in the prior art to combine the elements. The suggestion can be expressly stated in a particular reference, or it may be within the knowledge that was generally available to one of ordinary skill in the relevant art.

Regarding two of the three patents at issue, the Federal Circuit found that the instructions, even if erroneous, could not have caused harm because testimony regarding those patents centered on a single reference, and not on any combination of prior art. The Federal Circuit thus affirmed the verdict regarding those patents. Nonetheless, the Federal Circuit vacated the verdict regarding the third patent so that the district court could determine whether its jury instructions regarding obviousness were erroneous in light of *KSR*. Chief Judge Michel dissented from this remand, finding that the instructions do not require an explicit reason to combine to be found in the references themselves. He also noted that the district court instructed that the reason to combine could be gleaned from "the knowledge that was generally available to one of ordinary skill in the relevant art."¹

In *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342 (July 2007), the Federal Circuit reversed the district court's denial of the defendant's motion for judgment as a matter of law on the issue of obviousness for a patent related to a stem-cell composition. The court held that the patent challenger met its burden of showing by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the

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composition or device, or carry out the claimed process, and would have had a reasonable expectation of success in doing so.² In *Aventis Pharma Deutschland GmbH v. King Pharms., Inc.*, 499 F.3d 1293 (September 2007), the Federal Circuit reversed the district court's bench-trial decision that the asserted claims for a pharmaceutical composition were not invalid, finding the asserted claims obvious. The Federal Circuit stated that a *prima facie* case of obviousness can be made by showing that a claimed composition and the prior art possess a "sufficiently close relationship" to create the expectation that the new compound would have properties similar to those of the old. See also *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254 (September 2007) (reversing a district-court judgment that claims to a composition for treating ear infections were not invalid. The claimed composition and the prior art composition were "in the same family"). The patentee then has the burden to rebut the showing of obviousness, for example with a showing that the claimed compound has unexpected properties.

In *In re Sullivan*, 498 F.3d 1345 (August 2007), the Federal Circuit reinforced the importance of secondary considerations. The Federal Circuit vacated and remanded a Board rejection of antivenom-composition claims because the Board failed to give any weight to the applicant's rebuttal evidence of teaching away, lack of expectation of success, and unexpected results. *Sullivan* has been the Federal Circuit's only post-*KSR* appeal from a Board rejection for obviousness that did not affirm the Board decision.

Besides *Verizon, Takeda Chem. Indus. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350 (June 2007), and *Forest Labs., Inc. v. Ivax Pharms., Inc.*, 501 F.3d 1263 (September 2007), are the only Federal Circuit decisions since *KSR* that held that the patents (each to a pharmaceutical composition) were valid and nonobvious. In both cases, the Federal Circuit affirmed the district court's holding that the claimed compounds would not have been obvious in light of the prior art. The Federal Circuit in *Takeda* found that there was nothing narrowing the field of lead-compound choices for modification into the claimed compound. Moreover, the court found that the prior art taught away from selecting and modifying the proposed lead compound because that compound was shown to be toxic. The court also cautioned against a generalization that

specific chemical structures are *prima facie* obvious from one another.

In *Forest Labs.*, the Federal Circuit acknowledged the district court's finding that modifying prior art compounds to result in the claimed compound would require undue experimentation. The Federal Circuit also acknowledged the finding that a person of ordinary skill would have been motivated to develop new compounds rather than undertake the "difficult and unpredictable task" of modifying the prior art compound to result in the claimed compound. Further, the Federal Circuit noted that the secondary considerations of failure of others, commercial success, unexpected results, and copying by others supported the validity of the claims.

The District Courts. Since *KSR*, the district courts have also considered a number of cases that included obviousness as an issue in the case. In *Friskit, Inc. v. RealNetworks, Inc.*, 499 F. Supp. 2d 1145 (July 2007), the district court for the Northern District of California granted summary judgment of obviousness regarding a patent related to streaming-media content search and playback over a network. The court, which was one of the first district courts to apply *KSR*, determined that the claimed invention merely arranged old elements that performed their known functions, thereby yielding predictable results. Nonetheless, in *Boston Scientific Corp. v. Johnson & Johnson*, No. 02-00790, 2007 WL 2408870 (August 2007), the same court denied the defendant's summary-judgment motion of obviousness for patents related to balloon-angioplasty catheters. The court found that with only a "passing reference" to the possibility of the claimed method in the prior art, it was unclear whether the referenced method presented a sufficiently viable solution so as to "yield predictable results." The court determined that the record did not present a clear explanation of the state of the art at the time of the claimed invention. The court also noted that the plaintiff presented evidence of recognition by others, failure of others, and skepticism regarding the claimed invention.

In *Titan Tire Corp. v. Case New Holland, Inc.*, No. 4:07-00063, 2007 WL 2914513 (October 2007), the district court for the Southern District of Iowa denied a preliminary injunction against the defendant because he raised a substantial question of validity of the plaintiff's design patent. Under 35 U.S.C. § 171, design patents are subject to the nonobviousness standards of 35 U.S.C. § 103. Though the defendant admitted

that the application of *KSR* to design patents is still new and untested, the court agreed that he succeeded in establishing a substantial question as to whether the design patent in suit is a predictable variation of the prior art that could have been implemented by a person of ordinary skill.

In *In re Omeprazole Patent Litig.*, 490 F. Supp. 2d 381 (June 2007), the district court for the Southern District of New York found the asserted patents to a pharmaceutical composition “not invalid”; having taken into account the “inferences and creative steps that a person of ordinary skill in the art would employ,” the court concluded that the defendants had failed to show that the interrelated teachings of the prior art references would provide a person of ordinary skill in the art with a reason to combine known elements to achieve the inventions. In making this determination, the court also considered the background knowledge of a person of ordinary skill in the art, the nature of the problem to be solved and other problems in the field, and the effects of demands known to the pharmaceutical formulation community or present in the pharmaceutical formulation market. In sum, the court stated that the innovations in the asserted patents were “more than the predictable use of prior art elements according to their established functions.”

However, in *Single Chip Sys. Corp. v. Intermec IP Corp.*, 495 F. Supp. 2d 1066 (June 2007), the district court for the Southern District of California granted summary judgment that claim 1 of an asserted patent, related to radio-frequency identification technology, was invalid as obvious. The court noted that *KSR* stated that the obviousness analysis must look to:

interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

After reviewing the record, the *Graham* factors, and many of the “new factors elucidated in *KSR*,” the court held that claim 1 of the asserted patent was obvious based on the combination of the cited prior art patents. (The holding and order were ultimately vacated due to settlement. See *Single Chip Sys. Corp. v. Intermec IP Corp.*, No. 04-1517, 2007 WL 2600850 (S.D. Cal. August 2007).)

In *Süd-Chemie, Inc. v. Multisorb Techs., Inc.*, No. 3:03-29, 2007 WL 2669366 (September 2007), the district court for the Western District of Kentucky dismissed the action after finding the patent to a desiccant film to be obvious. The court noted that the patent neither “create[d] some new synergy,” *Anderson’s-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969), nor employed elements that worked together in an “unexpected and fruitful manner.” *United States v. Adams*, 383 U.S. 39 (1966). The court also determined that to find that the prior art taught away from the claimed invention, a distinction in the art must be recognized that was beyond the grasp of a person of ordinary skill.

In *Eaton Corp. v. ZF Meritor LLC*, No. 03-74844, 2007 WL 2738811 (September 2007), the district court for the Eastern District of Michigan denied summary judgment of obviousness for a patent to an automated control and calibration system for a truck transmission. The court required the defendant’s expert to discuss which parts of each prior art reference would have been obvious to use, or why it would have been obvious to disregard other teachings from the same references. *Id.* (“[I]t is relevant to ask why one of ordinary skill would choose one teaching from a particular prior art reference, but reject another teaching from the same reference.”). In particular, the court noted that the defendant’s expert did not justify disregarding one of the prior art’s teachings and replacing it with the claimed technique. The expert updated his report, stating that the reason to combine was that the claimed invention and the prior art both sought to solve the same problem and both involved the same industry (industrial vehicles). The defendant’s expert further argued that common sense demonstrated the requisite reason to combine. In a later decision regarding the updated report, the court found the expert’s explanation to be cursory and conclusory. *Eaton Corp. v. ZF Meritor LLC*, No. 03-74844, 2007 WL 2901692 (October 2007). This lack of supporting testimony, along with the plaintiff’s argument that there was a long-felt need, caused the court to again deny summary judgment of obviousness.

In *Roche Palo Alto LLC v. Apotex, Inc.*, No. C05-02116, 2007 WL 2694175 (September 2007), the district court for the Northern District of California declined to decide whether *KSR* constitutes a change in law sufficient to prevent application of issue preclusion to the court’s pre-*KSR* finding of nonobviousness. The court determined that claim preclusion applied, even assuming that issue preclusion did not.

Id. (“[T]he fact that a judgment may have been wrong, or have rested on a since-repudiated legal principle, does not alter the claim preclusive effect of a final judgment.” Citing *Federated Dep’t Stores v. Moitie*, 452 U.S. 394 (1981)). The court noted that the Supreme Court in *KSR* did not purport to overrule or overturn any other decisions—*KSR*’s holding was narrowly limited to the Federal Circuit’s application of the TSM test in the matter before it. Nonetheless, the court also noted that subsequent lower courts regard the *KSR* decision as possibly affecting existing Federal Circuit precedent regarding the application of the TSM test.

The Patent and Trademark Office. The PTO’s reaction to *KSR* has been notable in three ways. First, just three days after *KSR* was handed down, the Office of the Commissioner for Patents took the exceptional step of issuing a memo to its Technology Center Directors that provided guidance to them in light of the *KSR* decision. The memo noted that the Supreme Court: i) “reaffirmed the *Graham* factors” in determining obviousness under Section 103; ii) “did not totally reject” the TSM test; iii) “rejected a rigid application of . . . TSM”; and iv) noted that “the analysis supporting [an obviousness rejection] should be made explicit.” In sum, the memo instructed examiners to “identify the reason why” a person of ordinary skill in the art would have combined prior art elements in the manner claimed.

Second, in the months following the *KSR* decision, the PTO’s Board of Patent Appeals and Interferences issued three precedential opinions that applied *KSR* in determining obviousness under Section 103 of a claimed invention in a patent application. In each case, the Board affirmed the examiners’ findings of unpatentability of the claims based on obviousness. For example, in *Ex parte Kubin*, No. 2007-0819 (May 2007), the Board found that one of ordinary skill “would have recognized the value” of isolating claimed cDNA and “would have been motivated to apply conventional methodologies” to do so. In *Ex parte Smith*, No. 2007-1925 (June 2007), the Board found that the claims to a pocket insert for a book were “combinations which only unite[d] old elements with no change in their respective functions and which yield[ed] predictable results.” The Board also noted that the improvements in the invention were “no more than ‘the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.’ ” In *Ex parte Catan*, No. 2007-0820 (July 2007), the Board found that the claims to a consumer-

electronics device with bioauthentication means were obvious based on prior art references that disclosed all the claims’ features. In making its decision, the Board echoed language from *KSR*, noting that “[w]here, as here ‘[an application] claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.’ ”

Finally, the PTO issued guidelines to its examiners to assist them in making a proper determination of obviousness in view of *KSR*: Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, 72 Fed. Reg. 57,526 (Oct. 10, 2007). The guidelines note that in *KSR*, the Supreme Court stated that the Federal Circuit erred in four ways in applying the TSM test: (1) by holding that courts and patent examiners should look only to the problem that the patentee was trying to solve, (2) by assuming that a person of ordinary skill would be led only to the prior art designed to solve the same problem, (3) by concluding that “obvious to try” could not prove obviousness, and (4) by overemphasizing the risk of hindsight. The guidelines also note, however, that the Supreme Court recognized TSM as one of a number of valid rationales that could be used to determine obviousness. The guidelines further note the recurring language in *KSR* stating that the combination of prior art according to known methods must yield more than predictable results.

The guidelines then detail the obviousness analysis according to the factual determinations outlined in *Graham*. They note that while the *Graham* inquiries are factual, obviousness is a legal determination. Therefore, the guidelines require examiners to clearly set forth their findings of fact and rationale for an obviousness rejection. An obviousness rejection must include a written record of findings of fact regarding the state of the art and the teachings of the prior art references. In determining the scope and content of the prior art, the guidelines permit examiners to search within the applicant’s field, in a field “reasonably pertinent” to the problem with which the applicant is concerned, or in another field solving a different problem. A statement regarding the level of ordinary skill in the art may be explicit or implicit.

Once the *Graham* inquiries are resolved, the guidelines require examiners to determine whether the claimed

invention would have been obvious to a person of ordinary skill. The guidelines require examiners to explain why the difference(s) between the claimed invention and the prior art would have been obvious to a person of ordinary skill. The guidelines set forth seven rationales, taken from *KSR*, that could be used to determine obviousness:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods or products) in the same way;
- (D) Applying a known technique to a known device (method or product) ready for improvement to yield predictable results;
- (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; and
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

The guidelines instruct that after the examiner has established the *Graham* findings and determined prima facie obviousness, the burden shifts to the applicant to rebut the obviousness finding by either showing that the examiner's findings are incorrect or providing other evidence showing nonobviousness (e.g., secondary considerations). The guidelines provide examples of the facts, if proven by evidence or argument, that may overcome a prima facie obviousness determination for a combination:

- (1) one of ordinary skill in the art could not have combined the claimed elements by known methods (e.g., due to technical difficulties);
- (2) the elements in combination do not merely perform the function that each element performs separately; or
- (3) the results of the claimed combination were unexpected.

CONCLUSION

The *KSR* decision continues to have a significant effect on the U.S. patent system because it altered one of patent law's basic tenets—the standard of obviousness under Section 103. The courts' decisions and the PTO's application of Section 103 since *KSR* was decided provide guidance on how they will handle future obviousness issues. But even after a review of these cases, questions remain, and only future decisions by the courts and PTO will determine *KSR*'s impact. ►►

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ENDNOTES

¹ See also *Lucent Techs. Inc. v. Gateway, Inc.*, No. 02-2060, 2007 WL 2274416 (August 2007). In *Lucent*, the district court for the Southern District of California denied the defendant's judgment as a matter of law and for a new trial on obviousness regarding audio coding patents. The court considered the following pre-*KSR* jury instructions regarding obviousness:

In deciding whether to combine what is described in various items of prior art, you **may consider whether or not there was some motivation or suggestion** for a skilled person to make the combination covered by the patent claims. The motivation or suggestion to combine the teachings of different prior art references **may be found either explicitly or implicitly** in the references themselves **or in the knowledge generally available** to one of ordinary skill in the art.

(Emphasis in original). The court determined that these instructions were compatible with *KSR*.

² See also *Bayer AG v. Dr. Reddy's Labs., Inc.*, No. 04-179, 2007 WL 3120794 (October 2007) (following *PharmaStem* to find that the defendant did not show clear and convincing evidence that the patent to a chemical composition was obvious). In *Bayer*, the district court for the District of Delaware found that the defendant demonstrated neither a reason to modify the asserted lead compounds over other compounds, nor a reasonable expectation of success in modifying the asserted lead compounds to create the claimed compound. Specifically, the court found that there was no evidence of the desirability of the asserted lead compounds, while there was evidence that persons of ordinary skill were focusing on other compounds for modification. There was also evidence that compounds with modifications other than that necessary to result in the claimed compound sometimes outperformed compounds having the modification necessary to result in the claimed compound.