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JONES DAY

IP perspectives

KSR v. Teleflex:
Moving Toward a More Flexible Definition of Obviousness

IP perspectives

letter from the practice chairs

Our cover story this issue considers the ethereal concept of obviousness under the flexible standards recently imposed upon the Federal Circuit by the Supreme Court. With the sudden demotion of the well-established suggestion-to-combine test, the recent decisions searching for new talismans for establishing non-obviousness are analyzed by Peter Thurlow, Greg Castanias, and Michael Dallal. Jackie Benn weighs in with her observations on the potential impact of the decision as well.

The semiconductor industry began the patent litigation revolution in the 1980s by which inventors sought substantial rewards in licensing their innovative research. Todd Miller looks at the recent history of, and developing trends in, this bellwether category of patent enforcement.

A unique statutory requirement in Japan entitles an inventor to reasonable remuneration for his invention if his employer acquires his patent rights, an entitlement that may be measured independently of terms in an employment agreement. Cal Griffith, Michiru Takahashi, and Nobutaka Komiyama consider recent statutory amendments to this inventor's right and warn of the consequences liable to befall a U.S. company with Japanese employees that fails to take account of this right.

Do virtual transactions in the virtual world of Second Life carry rights and obligations for use of trademarks as if the virtual transactions were real? In their commentary, Maria Nelson and Anna Raimer suggest that the exchange of real value and real money by enthusiasts of the Second Life pastime justifies application of the Lanham Act to trademark usages there.

As always, we appreciate receiving comments and suggestions concerning this publication, its contents, and possible future articles. Please contact one of us, or the authors, for further information on any of these topics. ⏭

Kenneth R. Adamo
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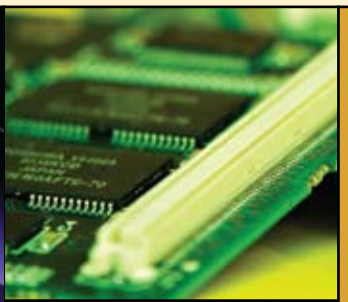


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KSR v. Teleflex:

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 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 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

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*

On 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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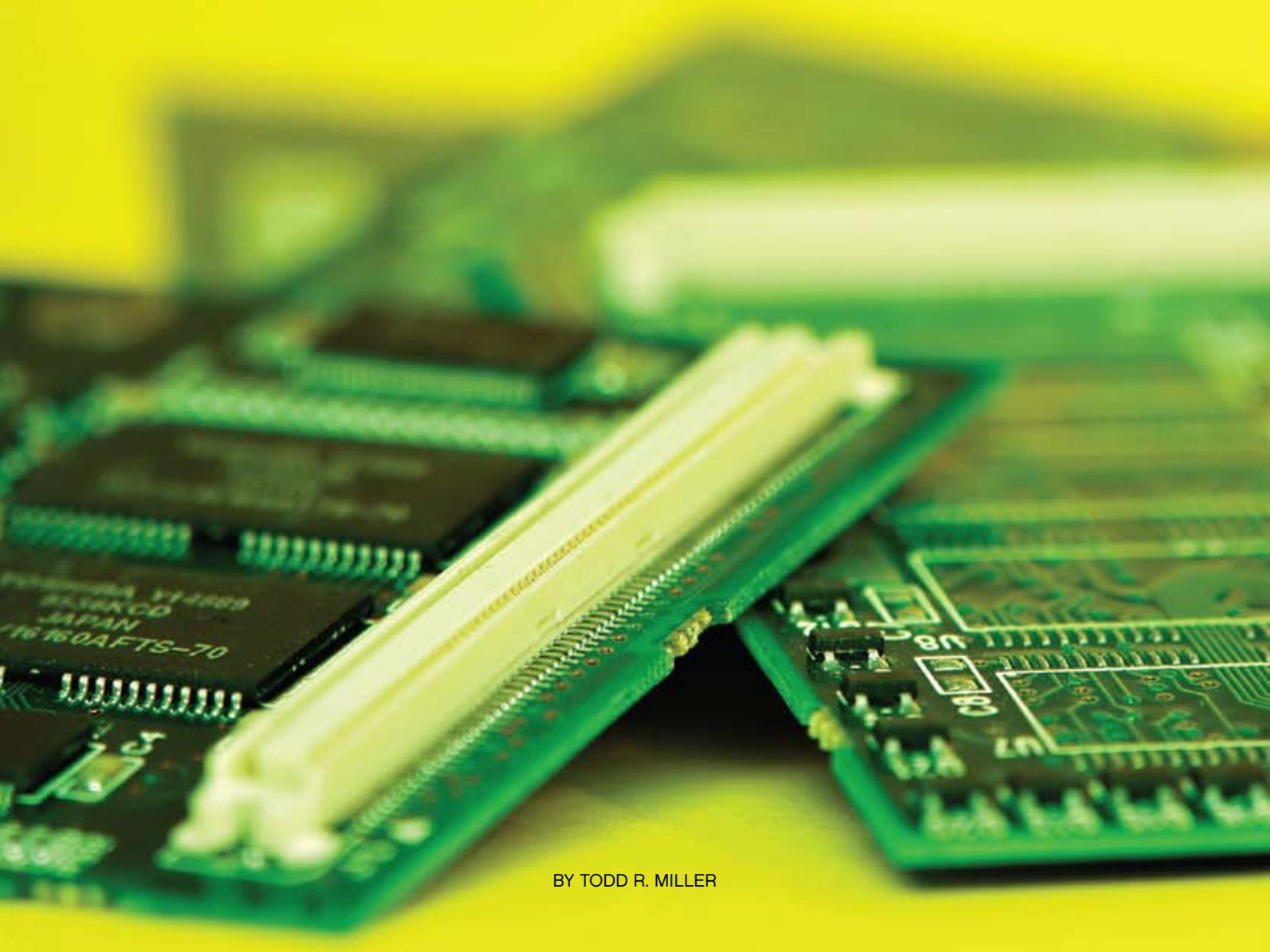
Patent Litigation and Prosecution Trends in the Semiconductor Industry

Executives and engineers who know and understand the ever-changing patent landscape of the semiconductor industry are in a unique position. They sit atop it all, able to see their company in relation to others, what everybody is doing, and where best to go to protect and enhance the value of their company.[1] This article discusses the industry's patent litigation over the last 10 years—how many suits and when, who was involved and where—and offers insight into the future. The article similarly discusses trends in patent prosecution by examining what has been patented, how often, and by whom since 2000.



BY TODD R. MILLER

LITIGATION TRENDS: FEDERAL DISTRICT COURT

In the United States, almost 900 patent lawsuits involving the semiconductor industry have been filed in federal district court since 1997, with the number of filings increasing each year. Indeed, there have been more suits filed halfway through 2007 (53 suits) than in all of 1997. Basically, in the last 10 years, suits have doubled.

As one could surmise, many different companies have been involved in these suits over the last decade. There are, of course, some frequent players. They are: Intel (some 6.5 percent of the time); Broadcom Corp. (3.6 percent); Texas Instruments Inc. (3.4 percent); Samsung Semiconductor, Inc. (2.5 percent); LSI Corp. (2.3 percent); and International Rectifier Corp. (2.2 percent); with Applied Materials, Micron Technology, STMicroelectronics, and Atmel Corp. each at roughly 2.0 percent. Intel has been involved in about eight cases a year since 1997, with the exception of 2005 (20 cases) and this year (zero cases). In 2003, Broadcom was involved in 10 cases, followed by seven the next year. Texas Instruments has seen a steady decline since it was involved in 13 cases in 1998.

In general, the propensity of large semiconductor companies to enforce their patent rights through litigation has remained stable during the last two decades. Hall and Ziedonis, *An Empirical Analysis of Patent Litigation in the Semiconductor Industry*, January 2007, at 1, 5. In contrast, smaller chip-design firms have been quite litigious. To establish proprietary rights in niche markets, these firms have been said to be so bold as to enforce roughly four out of every 100 patents they own. *Id*. at 3. While the majority of suits are between rivals, there has been a rather dramatic increase in suits brought by outside patent owners or non-rivals. These entities, sometimes pejoratively referred to as "patent trolls," see a target within the industry and go after it, with the goal of obtaining license revenue. Relatively well-known entities that fit this bill include Acacia Technology (more than 140 patents directed to the "V chip" technology used in television parental control systems), Burst.com (patents directed to buffering techniques used in video and audio streaming), Asure Software—previously Forgent Networks (U.S. Patent No. 4,698,672, directed to JPEG compression, said to bring in more than $105 million in licensing revenue), NeoMagic Corp. (patents directed to mobile TV technologies), and Patriot Scientific (patents directed to the design of advanced microprocessors, digital signal processors, embedded processors, and system-on-chip devices). Patriot Scientific and the TPL Group have formed Alliacense. This outfit has sent notice of alleged patent infringement to no fewer than 485 companies; at least 18 capitulated halfway through 2007.

Almost 50 percent of suits in the last decade have been filed in the Ninth Circuit, primarily in courts located in California. The Patent Local Rules in the Northern District of California and the physical locale of many in the semiconductor industry help account for such filing statistics. The Fifth Circuit, with its Eastern District of Texas, has seen roughly 18 percent of the filings. Next comes the Third Circuit, which includes Delaware, with 13 percent. The next circuit, the Fourth Circuit, drops dramatically down to around 4 percent. In 2005, 97 percent of cases were filed in only two circuits: the Ninth Circuit (60 percent) and the Fifth Circuit (37 percent). In 2006, filings decreased to some extent, with the Ninth and Fifth Circuits coming in at around 50 percent and 27 percent, respectively.

It follows that the judges who have been hearing the most cases over the last decade are situated in the Ninth, Fifth, and Third Circuits. Judges Ward and Davis, both in the Eastern District of Texas, are first and second, with 3.1 percent and 3.0 percent, respectively. Judges Fogel and Seeborg, both in the Northern District of California, are tied for third with Judge Robinson of the District of Delaware, at 2.8 percent. Judges Whyte and Trumbull, both of the Northern District of California, are tied for fourth at 2.7 percent.

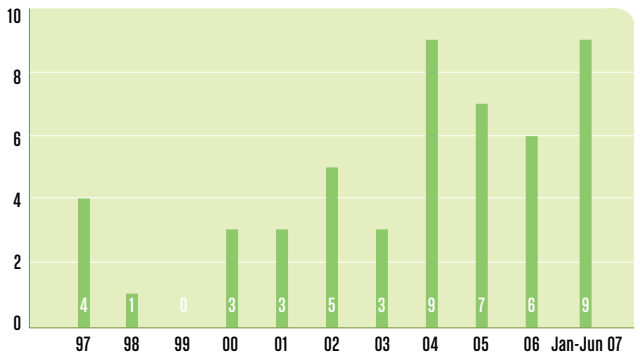
TOP 10 COMPANIES INVOLVED IN SEMICONDUCTOR LITIGATION

2006	HALFWAY THROUGH 2007
Intel	Atmel Corp.
Broadcom Corp.	Microsemi Corp.
Micron Technology	Fairchild Semiconductor International, Inc.
Altera Corp.	Monolithic Power Systems, Inc.
Analog Devices, Inc.	Samsung Semiconductor, Inc.
AmberWave Systems Corp.	Renesas Technology America, Inc.
ON Semiconductor Corp.	Freescale Semiconductor, Inc.
ProMOS Technologies Inc.	Altera Corp.
STMicroelectronics	JDS Uniphase Corp.
Lam Research Corp.	LSI Corp.

LITIGATION TRENDS: INTERNATIONAL TRADE COMMISSION

As illustrated in Figure 1 (below), there have been 50 United States International Trade Commission ("ITC") Section 337 investigations alleging infringement of patents involving the semiconductor industry over the last decade. The chart shows a notable change in the number of investigations recently (nine halfway through 2007) compared to a decade ago (four in 1997). This increase may be a reaction to *eBay Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837 (2006). With this landmark unanimous decision, the Supreme Court put an end to the "general rule" that a permanent injunction should follow a finding of infringement of a valid patent in a district-court proceeding. Whether an injunction should issue is now within the trial court's discretion. In contrast, in the ITC, the primary remedy is still the almighty exclusion order.

Semiconductor Patent Investigations – ITC **Figure 1**



Over the last decade, the primary players in these investigations have been Toshiba Corporation (six investigations); Samsung Electronics Co., Ltd. (five); and Fujitsu Limited, Gateway, Hewlett-Packard Company, Hynix Semiconductor Inc., and Qualcomm Incorporated (each with three).

In 2006, the investigations involved BIAX Corp. (against Philips and 2Wire, Inc.); Fluke Corp. (against Altadox Inc., et al.); Lexar Media, Inc. (against Toshiba); Linear Technology Corp. (against Advanced Analogic Technologies); Microsoft (against Belkin Corp.); and Qualcomm (against Nokia).

The 2007 investigations involve Tessera (against ATI Technologies, Freescale Semiconductor, Motorola, Qualcomm, Spansion, and STMicroelectronics); Toshiba (against Hynix); Samsung (against Renesas); Toshiba (against Daewoo Electronics America, et al.); Topower Computer Industrial Co. (against Xion/Axpertec Inc., et al.); Callpod, Inc. (against GN Netcom); St. Clair Intellectual

UNITED STATES DATA

Since 2000, the industry has seen a consistent annual output of around 7,000 United States patents. Around 9,000 United States patent applications are published yearly.

Figure 2 (below) illustrates the top seven companies receiving such patents: Micron Technology, International Business Machines, Toshiba, NEC, Samsung, Mitsubishi, and Hitachi. Until recently, Micron Technology has been on top, with around 1,200 patents assigned to it annually. IBM is second with around 800 patents a year, with a notable increase in patents in 2002. Patents issued to Mitsubishi have tailed off rather dramatically, falling from 616 in 2003 to 125 in 2006.

Top Seven Companies – U.S. Patents **Figure 2**

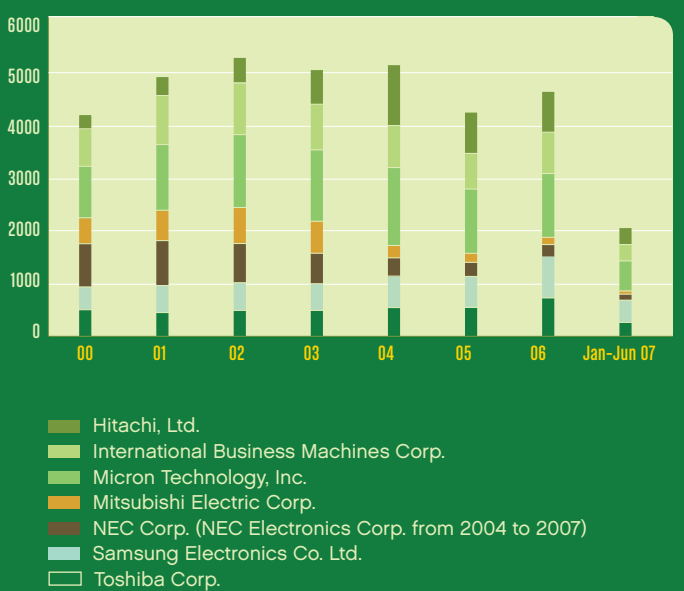


Figure 3 (top right) illustrates the top semiconductor areas that have been patented since 2000. They are (1) active solid-state devices, (2) semiconductor device manufacturing: process, (3) static information storage and retrieval, (4) miscellaneous active electrical nonlinear devices, circuits, and systems, (5) coherent light generators, (6) electricity: measuring and testing, and (7) electricity: electrical systems and devices. The heaviest activity came between 2001 and 2005, with some 5,000 patents issuing in active solid-state devices.

ON TRENDS

Top Seven U.S. Classes Since 2000 – U.S. Patents **Figure 3**

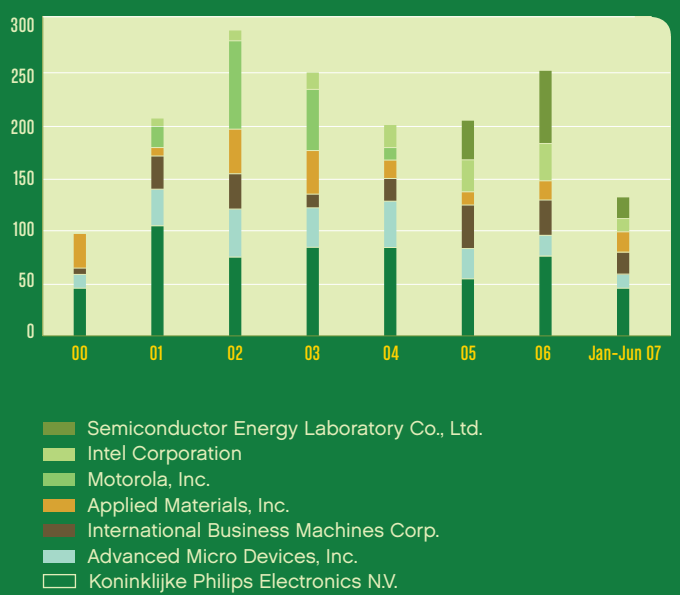
Class	Description	
257	Active Solid-State Devices	49%
438	Semiconductor Device Manufacturing: Process	31%
365	Static Information Storage and Retrieval	9%
327	Misc. Active Electrical Nonlinear Devices, Circuits, and Systems	4%
372	Coherent Light Generators	3%
324	Electricity: Measuring and Testing	2%
361	Electricity: Electrical Systems and Devices	2%

PATENT COOPERATION TREATY DATA

The number of Patent Cooperation Treaty ("PCT") applications published annually is consistently around 2,000. Figure 4 (below) illustrates the frequency with which the top seven companies (Koninklijke Philips Electronics N.V., Advanced Micro Devices, IBM, Applied Materials, Motorola, Intel, and Semiconductor Energy Laboratory Co.) are filing.

The top areas being applied for under the PCT since 2000 include the semiconductor itself, semiconductor devices, optics, coatings, and static stores.

Top Seven Companies – PCT Applications **Figure 4**



Property Consultants, Inc. (against Eastman Kodak); Global Locate (against SiRF Technology, et al.); and SiRF Technology (against Global Locate).

EXPECTATIONS

In the next decade, absent legislation or other dramatic reform, expect to see another twofold increase in patent litigation in the industry, if not more. We should see the same steady rate of enforcer litigation by the large semiconductor companies. We should continue to see aggressive enforcement by smaller chip-design companies, and we should see many more lawsuits as a result of more and more outside patent owners/nonrivals seeking to cash in on licensing fees. Such lawsuits may come as a result of the greater ease with which an accused infringer can now file suit for declaratory judgment, per the Supreme Court's *MedImmune, Inc. v. Genentech, Inc.*, 127 S. Ct. 764 (2007). Or they may come as preemptive filings, *i.e.*, as a result of the patentee affirmatively seeking to sue first in its chosen forum and then initiating contact with the accused infringer to negotiate a license. Moreover, an accused infringer may be more willing to sue for declaratory judgment of invalidity in light of the Supreme Court's *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007), which may make it easier to prove obviousness, and in light of *eBay*, which makes it much more difficult for a nonrival to obtain an injunction. Due to the latter reason alone, expect to see more ITC investigations, as these quick proceedings offer an exclusion order as the primary remedy.

Assuming the litigation takes place in federal district court, the Ninth Circuit should continue to be the primary go-to circuit, with its Northern District Court and Central District Court seeing the most action. The Eastern District of Texas should continue to be a favored forum for patentees. However, expect to see this forum's shine diminish somewhat, as trial dates are being pushed farther and farther into the future due to backlog, coupled with the knowledge that at least some defendants are coming away victorious, as evidenced by recent summary-judgment motions in favor of the accused infringer and jury findings of invalidity. Indeed, at trial, the patentee's win rate for 2007 is 20 percent. Also expect to see more suits filed in the increasingly popular, speedy Western District of Wisconsin. The Northern District of Texas, Northern District of Georgia, and Western District of Pennsylvania, each of which has now enacted local patent rules, should also see increased filings.

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BY CALVIN GRIFFITH, MICHIRU TAKAHASHI & NOBUTAKA KOMIYAMA

THE PITFALLS OF FAILING TO "REASONABLY" COMPENSATE EMPLOYEE INVENTORS IN JAPAN:

EMPLOYERS BEWARE

The United States is generally considered a more litigious country than Japan, where customs traditionally favor a less confrontational approach to dispute resolution. But there is one exception—employee invention lawsuits. A recent series of lawsuits filed by aggrieved employee inventors against their employer companies, demanding "reasonable remuneration" for the employees' inventions, has brought attention to this unique area of Japanese patent law—and raised concern in the business community. Japanese companies were shocked to find themselves facing the possibility of paying seven-figure sums in compensation for employee inventions, having expected that the compensation provided in the ordinary employment contract or internal employment regulations would be accepted by courts as reasonable. This stunning development in Japanese courts is based on Japan's unique employee invention system under Article 35 of the Japan Patent Law, and foreign companies doing business in Japan, especially those with R&D facilities there, should be familiar with the provisions of Article 35 and the case law applying it.

ORIGIN OF THE FUSS—ARTICLE 35 AND THE *OLYMPUS* CASE

Article 35 of the Japan Patent Law. Japan has a unique employee invention system under Article 35 of the Patent Law. That article provides a number of important rights for employee inventors.

First, if an employee makes an invention that, by the nature of the invention, falls within the scope of the business of his employer and was achieved by acts within the employee's duties for the employer (an "employee invention"), the right to obtain a patent on the invention *originally belongs to the employee* (Article 35, Paragraph 1). This is different from the practice in countries such as the United Kingdom and France, where the right to obtain patents for employee inventions originally belongs to the employer.

An employer, however, may enter into a contract with an employee or establish internal employment regulations providing *in advance* that the right to obtain a patent for any employee invention shall be assigned to the employer, or that an exclusive license for any employee invention shall be granted to the employer (established construction deriving from Article 35, Paragraph 2).

If an employer acquires the right to obtain patents for employee inventions from an employee, the employer must pay a reasonable remuneration to the employee (Article 35, Paragraph 3).

Prior to the *Olympus* case, Japanese companies believed that if they unilaterally established internal employee invention rules that set an amount of remuneration in exchange for the assignment of inventions from employees, such amount would be duly respected by Japanese courts as valid and binding. The amount of remuneration provided in those employment regulations was usually not high, frequently around just a few hundred dollars. The *Olympus* case changed the landscape.

The *Olympus* Case. The 2003 Japanese Supreme Court decision in *Olympus Optical v. Tanaka* (1822 *Hanrei Jiho* 39) gave employee inventors clear grounds to assert claims for deficient remuneration for their inventions even when payment had been provided for in internal employment regulations. In that case, Olympus had employment regulations providing that it had the right to obtain patents for employees' inventions and that employee inventors would be entitled to remuneration based on income from the patents. Pursuant to those regulations, Olympus acquired a patent on employee Tanaka's invention. Olympus then licensed the patent as part of a patent portfolio to many licensees in Japan, resulting in a royalty income of many billions of yen. The employee inventor, Tanaka, received remuneration in the amount of 3,000 yen for the patent application, 8,000 yen for the patent grant, and 200,000 yen as a later bonus payment—a total of slightly more than $1,800.

The Supreme Court affirmed the trial court's decision that the reasonable amount of remuneration under Article 35 should be 2.5 million yen (approximately $22,000) and ordered Olympus to pay the balance. The Court held that even if there is an employment regulation concerning the remuneration to be paid to employee inventors, and the employee receives payment pursuant to such internal regulations, the employee is entitled to demand a reasonable amount that ought to be paid for the invention based on its actual value.

The *Olympus* case thus established that an employee inventor has a right to claim additional remuneration for an invention if the amount actually received under the employer's regulations is unreasonable—less than what ought to be paid. As a result, many lawsuits followed, including actions against Hitachi, Nichia, and Ajinomoto. Awards in several cases were quite high—for example, the employee inventor in the *Nichia* case successfully obtained an award of around 840 million yen (approximately $7.3 million). The *Olympus* case, however, left many issues unresolved, particularly as to how reasonable remuneration should be determined under Article 35. One such unresolved issue was whether Article 35 applies to foreign counterpart patents deriving from a Japanese patent. The 2006 Supreme Court decision in *Hitachi vs. Yonezawa* (1951 *Hanrei Jiho* 35) finally resolved this issue.

SHOULD FOREIGN COUNTERPART PATENTS ALSO BE CONSIDERED UNDER ARTICLE 35?

Facts. The plaintiff in *Hitachi* was a former employee who had made many inventions during the course of his employment related to the recording of digital data on optical disks. Hitachi had entered into an agreement with the plaintiff under which the right to obtain patents concerning these inventions was assigned to Hitachi, and Hitachi obtained patent rights in Japan and abroad. In consideration of this

assignment, Hitachi paid 2,380,100 yen (more than $21,000) to the employee inventor pursuant to Hitachi's invention remuneration rules. Hitachi profited significantly from its patent portfolio licensing agreements that included the patents for the plaintiff's inventions.

Lower-Court Decisions. The Tokyo District Court and the Tokyo High Court took different views as to whether foreign patents should be taken into account in calculating reasonable remuneration under Article 35, Paragraphs 3 and 4. The Tokyo District Court ordered Hitachi to pay approximately 35 million yen (approximately $305,000) as remuneration under Article 35, Paragraph 3. In determining that amount, the Tokyo District Court did *not* include remuneration for foreign patents based on the Japanese priority patent applications for the subject inventions. The District Court stated that because of the doctrine of territoriality, Article 35 of the Japan Patent Law should apply only to Japanese patent rights, and not to foreign counterpart patents.

The Tokyo High Court reversed the holding of the District Court, finding that Article 35 of the Patent Law should apply not only to Japanese patents, but also to counterparts in foreign countries. The Tokyo High Court then determined that the reasonable amount should be 165,383,816 yen (approximately $1.4 million), considering the value of global package cross-licensing agreements (even if Hitachi did not receive royalty payments under those cross-licensing agreements).

The Supreme Court Decision. The Supreme Court upheld the decision of the Tokyo High Court and specifically addressed whether an employee could claim reasonable remuneration for assignment of the right to obtain foreign patents under Article 35, Paragraph 3.

First, the Supreme Court held that Japanese law should govern the right to demand compensation for assignment of rights to obtain patents in foreign countries, stating that the governing law of this issue should be decided primarily by the intent of the parties according to Article 7, Paragraph 1, of the Law Concerning Conflict of Laws (*Horei*). The Court found that the parties had implicitly agreed that the applicable law concerning the assignment of the right to obtain patents (including foreign patents) should be Japanese law.

Second, the Supreme Court held that Article 35, Paragraph 3, is not directly applicable to foreign patents because the Japan Patent Law does not directly regulate matters concerning foreign patents. The Court found that the phrase "the right to obtain a patent" in Article 35 did not literally include the right to obtain foreign patents. However, the Court held that Paragraph 3 should be applied by analogy to foreign patents for several reasons:

- The Court found no reason to differentiate between Japanese patents and foreign patents in terms of negotiating power between an employer and employee. The Court stated that "the objective of Article 35, Paragraphs 3 and 4, is to encourage inventions and thereby to contribute to the development of industry, which is the objective of the Patent Law, through protecting an employee who created an employee's invention . . . taking it into consideration that it is difficult for an employee to make a deal with his/her employer on equal terms because of the fact that the employee is employed by the employer and the employee invention is made based on such employment relationship. As to this objective of Article 35, Paragraphs 3 and 4, the difficulty for an employee to deal with his/her employer on equal terms is the same whether said right is to obtain Japanese patents or foreign patents."

- The Court emphasized that foreign patents and Japanese patents derive from the same invention. The Court stated, "While the right to obtain a patent exists respectively in each country, the invention on which the right to obtain a patent is based is the result of the same technological creative activity."

- The Court found that the parties' ordinary intent was to address all rights and obligations between the employee and the employer arising from the subject invention, whether domestic or foreign.

The *Hitachi* decision thus significantly increased the stakes in employee inventor lawsuits, since it made the global portfolio available in considering the value of the employee invention.

THE 2004 AMENDMENTS TO ARTICLE 35—HAS THE PROBLEM BEEN RESOLVED?

The Supreme Court's decisions in *Olympus* and *Hitachi* made it clear that a company's internal employee invention rules cannot by themselves establish what is "reasonable remuneration" for an employee's invention. If the compensation to the employee is not "reasonable remuneration" under

Article 35, Paragraph 3, a disgruntled employee is entitled to payment of the deficiency. But what's "reasonable"? Prior to 2004, Article 35, Paragraph 4, provided that in determining reasonableness of payment, the amount of the employer's benefit from the invention and the extent of the employer's contribution to the invention must be taken into consideration, but this language provided little clarity to companies seeking certainty and predictability. With a view to resolving this uncertainty and avoiding unnecessary legal disputes between employee and employer, an amendment to Article 35 was enacted on May 28, 2004, and came into effect on April 1, 2005.

The amendment changed Article 35 in two respects:

First, Paragraph 4 was revised to specify that remuneration by an employer pursuant to a contract, employment regulation, or other stipulation shall not be considered unreasonable in circumstances where there is consultation between the employer and the employees to set standards for remuneration, there is disclosure of the standards for remuneration, and the opinions of employees concerning the amount of remuneration are heard by the employer.

Further, the new Paragraph 5 provides that (i) where no provision setting forth the remuneration as provided in the preceding paragraph exists, or (ii) where it is recognized under the preceding paragraph that the amount of remuneration to be paid in accordance with the pertinent provision(s) is unreasonable, the amount of the remuneration under Paragraph 3 shall be determined by taking into consideration the amount of profit to be received by the employer from the invention, the employer's burden and contribution, its treatment of the employee, and any other circumstances relating to the invention.

Due to these amendments, we expect that Japanese courts will show greater deference to corporate rules of compensation for employee inventions if the rules are prepared with due process in terms of (i) consultation with employees, (ii) disclosure of the rules, and (iii) hearing views from employees. However, it is as yet unclear what type of "consultation" or other procedures will validate an employer's remuneration criteria so as to avoid judicial scrutiny of their reasonableness. To provide guidelines regarding the boundary of acceptable practices, the Japan Patent Office published "Case Studies of the Procedures under the New Employee Invention System" in September 2004. However, those guidelines have not been tested in court.

Despite the hope of the Japanese business community that the amendments to Article 35 would eliminate uncertainty, questions remain. The fundamental structure of Article 35 remains unchanged, and therefore, a Japanese court still may override employment regulations and award what the court regards as reasonable remuneration pursuant to Paragraph 5 if the court believes that the amount of remuneration provided by the company's internal regulations was unreasonable or was not arrived at through "due process." It remains to be seen whether courts will accept properly negotiated remuneration criteria as a limit and how deferential courts will be to such negotiated criteria. Further, the amendments apply only to rights to obtain patents or patent rights assigned on or after April 1, 2005. Therefore, employers still face the risk that aggrieved employee inventors may file lawsuits seeking remuneration pursuant to the old Article 35.

CONCLUSION

Foreign corporations with R&D facilities in Japan need to be thoroughly familiar with Article 35 and with the internal procedures and rules that should be followed to minimize the risks of a lawsuit from a disgruntled employee inventor. The cost of ignorance is high, and it is increasing; following the Supreme Court's decisions in *Olympus* and *Hitachi*, patented inventions commercialized globally may result in multimillion-dollar employee remuneration awards. In a country increasingly open to litigation, and where the custom of lifetime employment has eroded, the threat and incidence of such lawsuits are on the rise.

Employers beware. ⏭

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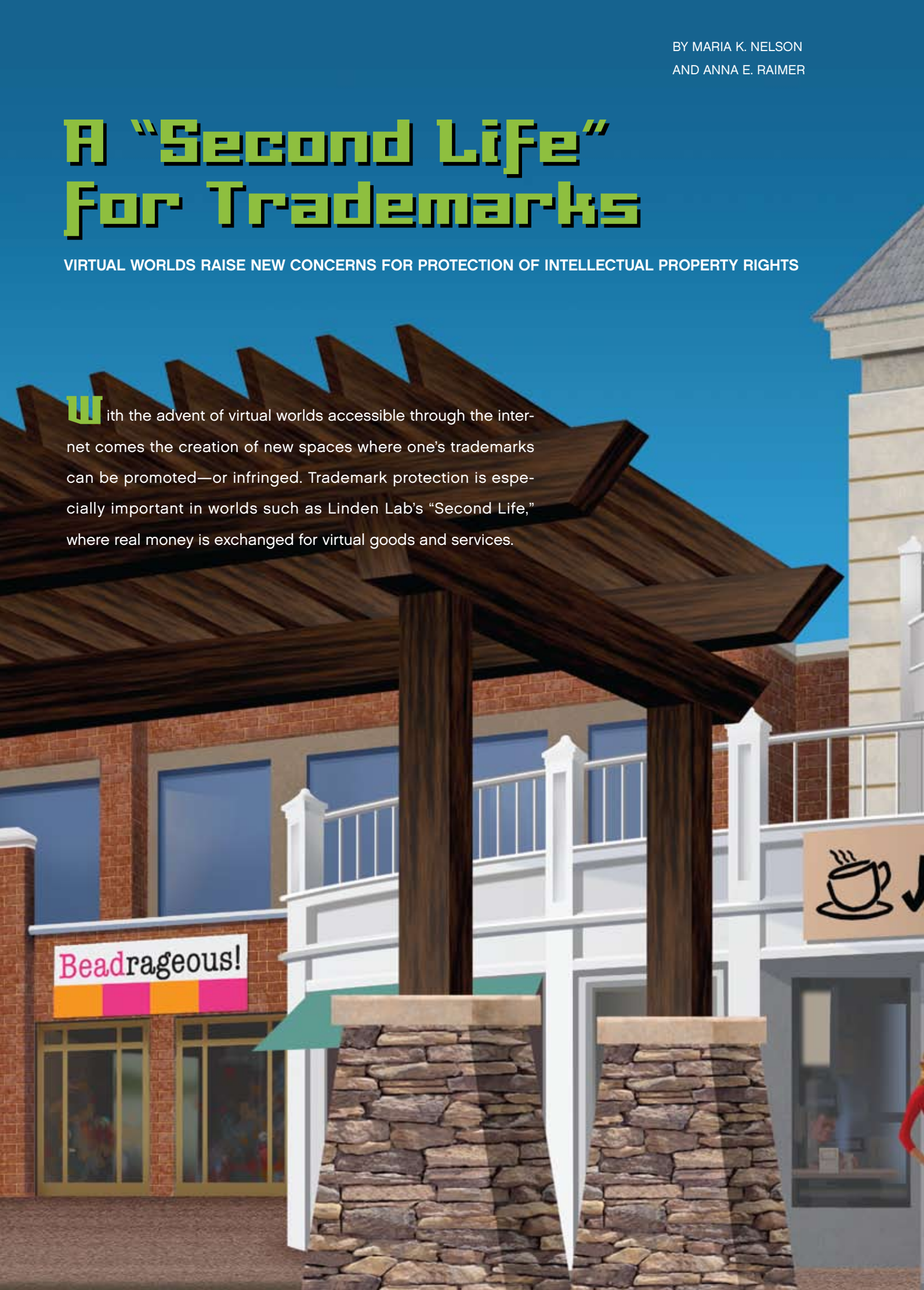
A "Second Life" For Trademarks

VIRTUAL WORLDS RAISE NEW CONCERNS FOR PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

With the advent of virtual worlds accessible through the internet comes the creation of new spaces where one's trademarks can be promoted—or infringed. Trademark protection is especially important in worlds such as Linden Lab's "Second Life," where real money is exchanged for virtual goods and services.

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Toyota lets avatars test-drive and purchase new models of its cars. Starwood Hotels allows users to tour its space and give feedback for hotel development plans.

The 3-D virtual world of Second Life is built

and owned by its "residents," and it has exponentially grown from its opening in 2003 to be "inhabited" by more than 11 million residents worldwide. These residents are internet users from across the globe who have created digital "avatars" of themselves in various creative forms.

Interestingly, avatars engage in many of the same activities as their real-life personas—they buy land, go shopping, attend religious services, watch political debates, go to school, eat dinner, and even get married. Of course, living in a virtual world also offers a few perks that residents typically would not experience in real life—avatars can fly; take fantastic forms; build a luxury villa; or even chat with prominent people who have been known to frequent Second Life, such as the Honorable Richard Posner, a judge on the United States Court of Appeals for the Seventh Circuit.

Real-life businesses have been cashing in on this virtual phenomenon and benefiting from its utility and market reach. For example, some companies are using Second Life to conduct job interviews, consult with clients, or hold business meetings. Moreover, Second Life offers companies a new forum for testing, advertising, and selling both real and virtual goods and services.

The expansion of Second Life, and virtual worlds like it, leads to the inevitable questions: What are a trademark owner's potential legal rights with regard to the infringement of its trademark in a virtual world? And what are the defenses likely to be raised in response to infringement allegations? Whether they are found in the real world or a virtual world, trademarks serve the same purpose of identifying and distinguishing a trademark owner's goods and services from those offered by others, as well as indicating the source of the goods and services. This function of a trademark is important even if the mark is used on virtual goods and services, and trademark owners deserve the same protection from infringing uses of marks in the virtual world as they do in real life. To date, there has not been much case law and analysis on the infringement of intellectual property rights in a virtual world due to the novelty of this technology. However, the way in which the exchange of goods in the virtual world mirrors that in the real world justifies the conclusion that real-world trademark laws should apply to virtual business.

COMMERCE IN SECOND LIFE

The Second Life economy is supported by monthly transactions amounting to millions of "Linden dollars," which can be converted to U.S. dollars at online currency exchanges. In October 2007, there were more than 23 million transactions ranging from 1 Linden dollar to more than 500,000 Linden dollars. Though the Linden dollar is presently worth only a fraction of a U.S. dollar, the number of transactions occurring in Second Life translates to significant amounts of real money being exchanged.

Many companies have already recognized the value of leasing land in a virtual world to globally promote their brand images and market their real-life products (or virtual copies of real-life products), often to the same types of consumers that are targeted in the real world. Calvin Klein launched a new real-world perfume brand in Second Life by giving away virtual fragrance bubbles and offering some consumers real samples. American Apparel has a Second Life store where avatars can purchase clothing to wear, much like the clothing available from the real-world store.

Toyota lets avatars test-drive and purchase new models of its cars. Starwood Hotels allows users to tour its space and give feedback for hotel development plans. Visitors to the virtual stores run by Dell and Circuit City can view information about and purchase virtual products, as well as order real-world products.

Based on the presence of such well-known brands in the virtual world, many users are likely to believe that the trademarks they encounter in Second Life come from the same source as in the real world. It is therefore important for companies to monitor trademark use in commerce in the virtual world to ensure that users are not being confused or misled into believing that products and services emanate from the trademark owners when they do not. Not only do companies risk losing their own sales from virtual counterfeiting of products, but marks may be used in a way that tarnishes the reputation of the real-world company.

Because the sale of products and services in Second Life often involves the exchange of real money, users stand to gain monetarily from the infringing use of another's marks. As on the real-world black market, counterfeit goods exist in virtual worlds. From clothing to cars to electronics, brands are being misappropriated in Second Life to sell "fake" virtual products for real money. Status symbols abound even in the virtual world. Thus, many companies may be losing out on potential sales by not creating and marketing virtual versions of their real-life products.

The lines between the real and virtual worlds are also becoming increasingly blurred as companies use Second Life as a marketing tool to advertise and test-market new products and as real-world products are sold in virtual stores. As commerce in virtual worlds increases, so will the use of trademarks to sell virtual goods and promote brands.

ANALYZING INFRINGEMENT IN THE VIRTUAL WORLD V. THE REAL WORLD

Because commercial activity in the virtual world replicates sales transactions in the real world, real-world trademark laws should govern the use of marks on spaces such as Second Life to protect both trademark owners and users. Trademark law in the United States, codified as the "Lanham Act," prohibits use of a trademark that is likely to cause confusion about the source of a product or service. 15 U.S.C. § 1114, 1125(a). The crucial inquiry for a claim for trademark infringement or false designation of origin is whether there will be a likelihood of confusion between the trademark and the allegedly infringing mark. This same standard should govern in the virtual world.

Many of the factors that are relevant in the real world for determining whether there is a likelihood of confusion are equally applicable to the virtual world. These factors include the strength of the trademark owner's mark; how similar the virtual infringer's mark is to the trademark owner's mark in terms of appearance, sound, and meaning; whether Second Life users have been confused by the use of the infringing mark; and a virtual infringer's intent in selecting the mark. With the ease of teleporting and flying through Second Life and the low cost of most products, other factors that are typically considered in the real-world test for confusion—such as the proximity of goods, marketing channels, and the degree of care likely to be exercised by a purchaser—will be of less importance in determining likelihood of confusion in the virtual world.

While there is little case law on intellectual property rights in the virtual world, there have been decisions relating to trademark rights in the similar medium of video games. For example, in the case of *E.S.S. Entertainment 2000, Inc. v. Rock Star Videos, Inc.*, 444 F. Supp. 2d 1012 (C.D. Cal. 2006), the publisher of the game Grand Theft Auto was sued for trademark infringement because one of the many locations included in the game was a strip club, called the "Pig Pen," which had a name and logo that were alleged to be confusingly similar to the name and logo of a real business, the "Play Pen." The court did not change its analysis of trademark infringement because the use was in a video game (*i.e.*, a virtual world) rather than the real world. Although the game was sold in the real world, rendering the case not entirely analogous to Second Life, it is likely other courts would similarly employ real-world trademark law for trademark infringement in the virtual world when goods and services are sold using infringing marks.

As in the real world, the likelihood of confusion in the virtual world will have to be determined on a case-by-case basis. And even if there is a strong case of likely confusion, trademark owners will still have to overcome a virtual infringer's defenses for such infringement.

DEFENSES TO INFRINGEMENT IN THE VIRTUAL WORLD

Courts have recognized that not all uses of a trademark will result in trademark infringement, and whether the infringer is a virtual or real-world infringer, it is likely to employ the same defenses to infringement. An infringer may argue that any use it is making of the trademark is a noninfringing use because it constitutes a noncommercial use, fair use, and/or use protected under the First Amendment as free speech, or because the trademark owner has lost its rights in the mark.

At least in the real world, infringement claims are subject to a commercial-use requirement, and a virtual infringer is likely to argue that its use of a trademark was a noncommercial use. To determine whether use of a trademark is a commercial use, a court will typically examine whether such use is in connection with a sale of goods or services. Where real goods are for sale in a virtual world, the standard is clearly met. Further, the sale of virtual goods and services for Linden dollars in Second Life should constitute commercial use because Linden dollars can be converted into real-world currency.

It is less clear whether commercial use can be found where virtual goods and services are given away at no cost. Some courts have held that the commercial-use standard does not require any actual sale of goods or services, but merely requires the virtual infringer to offer competing services to the public. The question, though, is whether someone participating in Second Life for amusement, not for gain, in giving away virtual counterfeits is "competing" with a trademark owner that is not offering its goods or services in Second Life. In giving away virtual iPods, are you competing with Apple for sales of real iPods? The answer to that question remains to be seen.

A virtual infringer may also claim that its use of a trademark constitutes a fair use of the mark. The classic fair-use

doctrine permits use of words or phrases that are also trademarks as long as those words or phrases are used as a description of the goods or services, and not to identify their source. The purpose of the defense is to prevent a trademark owner from appropriating a descriptive term for its exclusive use and thereby prevent others from using the term to accurately describe their goods. The nominative fair-use defense typically applies when an infringer has used a mark for comparison or criticism or as a point of reference. A nominative fair-use analysis replaces the likelihood-of-confusion analysis and is established by showing that the infringing goods or services were not readily identifiable without use of the trademark, the infringer has taken only so much of the mark as is necessary to identify the product or service (*i.e.*, not using the same font or logo but just the word), and the infringer has not taken any action to affirmatively suggest or deny sponsorship or endorsement by the trademark owner. These defenses should be subject to the same standards in the virtual world as in the real world.

A virtual infringer may argue that its use of the relevant trademark is protected by the First Amendment. The success of such an argument will depend on the type of use being made of the trademark. If a virtual infringer is making an expressive use of a trademark owner's mark, such as by providing commentary or criticism regarding the owner's goods or services, the virtual infringer's rights under the First Amendment to use the trademark to communicate such a message may prevail over trademark rights. However, consumers have a right not to be misled by the use of a trademark, so courts must weigh the public interest in free speech and expression against the public interest in avoiding consumer confusion.

The most disconcerting defense that an infringer could take to excuse infringing activity is that the trademark owner has abandoned its mark in the virtual world because of its failure to adequately police virtual infringement. Trademark law requires that trademark owners actively protect their trademarks from infringement. The failure to adequately enforce one's trademarks can lead to the loss of trademark rights or the inability to enjoin the use of a trademark. The possibility that such a defense could be raised is a strong incentive for companies to monitor and police the use of their trademarks in virtual worlds such as Second Life.

RESPONDING TO VIRTUAL-WORLD INFRINGEMENT

By exchanging goods and services in the virtual world, along with engaging in the multitude of other activities that take place in Second Life, users are duplicating commerce in the real world through actions of their second-self avatars in the virtual world. It is therefore appropriate that the laws that govern real-life business, including trademark laws, should apply to virtual transactions. It is also appropriate for trademark owners to take the same measures in a virtual world that they would take in the real world, to the extent possible. These measures include monitoring and documenting any trademark abuse and potentially putting infringers on notice that their activities have not gone unremarked.

Of course, even if real-world trademark laws can be used to enjoin trademark infringement in the virtual world, the global nature of cyberspace, as well as the ability to cloak one's identity in avatars, raises a host of additional problems, such as obtaining jurisdiction over—or even finding—the virtual infringer. Thus, another step a trademark owner should consider is requesting that Linden Lab remove the offending trademark. The terms of the service agreement entered into by users of Second Life require users not to post content that infringes third-party property rights, and the terms also give Linden Lab broad power to eliminate content. And Linden Lab has an incentive to police such activity in order to attract more businesses to Second Life, which may be hesitant to invest in a virtual world if their products are being rampantly infringed.

After all, it should be the trademark owner, not a virtual infringer, that obtains a second life for its trademarks. ⏭

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The Impact of the
A New Regime for Gathering and

BY NEIL COULSON, CATHERINE MUYL & RICHARD SCHLÖTTER

It is a well-known fact that product piracy and counterfeiting have a huge commercial impact. The damage caused by counterfeiting products is estimated to amount to approximately $600 billion a year, and in 2004 alone, 103 million counterfeit articles were seized by customs authorities at the external border of the European Union. Compared to 1998, this amounts to an increase of 1,000 percent.[1] The European Union has increased its efforts to fight counterfeiting and piracy by enacting Directive 2004/48/EC of April 29, 2004, on the Enforcement of Intellectual Property Rights, commonly known as the "Enforcement Directive." However, while reducing counterfeiting and piracy was the motivation, the scope

European Enforcement Directive: Preserving Evidence?

The European Union has increased its efforts to fight counterfeiting and piracy by enacting Directive 2004/48/EC of April 29, 2004, on the Enforcement of Intellectual Property Rights, commonly known as the "Enforcement Directive."

of the Enforcement Directive is of wider procedural application and applies to all intellectual property litigation. It aims to strengthen the position of intellectual property rights holders when they need to enforce their rights in civil proceedings, to enhance the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS"), and to obtain a minimum level of harmonization between the civil procedures available in the Member States. The Enforcement Directive applies only to civil proceedings; enforcement of criminal proceedings and penal sanctions is left to the individual Member States.

It is Articles 6 and 7 of the Enforcement Directive that are of particular relevance to the intellectual property rights holder. These Articles address the question of evidence and introduce measures for obtaining and preserving evidence. The aim of the Enforcement Directive is to ensure that a minimum standard applies throughout the European Union, with the national states free to provide protection beyond this minimum. This article looks at the impact of the Enforcement Directive on the procedures available in the three main European jurisdictions—Germany, the United Kingdom, and France—and examines how it may, or may not, alter the available procedures in each jurisdiction.

GERMANY

Current Status of the Enforcement Directive. Despite the fact that the Enforcement Directive was due to be implemented by April 29, 2006, a significant number of Member States have yet to do so. Germany is one of these countries. However, the German government has issued a draft bill to implement the Enforcement Directive ("*Gesetz zur Verbesserung der Durchsetzung von Rechten des geistigen Eigentums*," proposal dated April 25, 2007), and it is likely that the bill will be enacted shortly. Rather than implementing the required measures in one statute, the draft bill provides for more or less identical amendments to each of Germany's existing laws that cover the different intellectual property rights. This approach is deemed to offer particular clarity for the legal practitioner. Further, the draft bill aims to adapt German law so that it conforms with the requirements of Council Regulation (EC) 1383/2003 dated July 22, 2003, which addresses actions by customs authorities against goods suspected of infringing a third party's intellectual property rights.

The Current Position Under German Law. It is often difficult to obtain evidence in German proceedings, especially if the allegedly infringing product or method is not publicly accessible or available. In principle, there is no obligation on a defendant to provide any kind of evidence that would allow a claimant to substantiate its allegations of infringement. However, all is not as bleak as it may seem. The German Federal Supreme Court (the *Bundesgerichtshof*) has used sections 809 and 810 of the German Civil Code to grant access to specific objects so that they can be examined. On May 2, 2002, in the landmark decision in *Faxkarte*, a copyright infringement case, the *Bundesgerichtshof* determined that there must be an appropriate procedure under which a copyright owner could preserve evidence and so demonstrate the alleged infringement. The principles of *Faxkarte* have since been applied to patent cases as well.

However, the German government has taken the view that the principles established in *Faxkarte* do not completely meet the requirements of Articles 6 and 7 of the Enforcement Directive. We will look at the proposed amendments in the context of the German Patents Act, where there is a proposed new section 140c.

Amendments to Implement Articles 6 and 7 of the Enforcement Directive. Under the new section 140c of the German Patents Act, a defendant will be obliged to submit documents or allow inspection of the alleged infringing product or process. It is a requirement that the documents that will be submitted, or the inspection of the product or process, must be essential to enable a patentee to substantiate its claims of infringement. This is as far as it goes, however. The new section 140c will not facilitate any further investigation of a defendant's internal documents or workings.

In practice, the condition of essentiality will often be satisfied if the information is needed either to check whether an infringement has occurred at all or to verify information that is already available. In both cases, for the German court to order production of documents or inspection, the test the court will apply is that it must be "adequately likely" that the patent has been infringed and that the production or inspection is necessary in order to prove it.

Since *Faxkarte*, where confidential information is concerned, the practice has been to involve an independent and neutral expert to inspect and examine the documents, product, or process or to proceed *in camera*.

Whether or not to order production or inspection is at the court's discretion. In determining whether to exercise its discretion in favor of granting an order, the court will take into consideration the nature of the information concerned, particularly if the information is confidential, and ensure that necessary steps are taken to provide appropriate protection of confidential information. Since *Faxkarte*, where confidential information is concerned, the practice has been to involve an independent and neutral expert to inspect and examine the documents, product, or process or to proceed *in camera*. Section 140c is silent about how confidentiality will be maintained, so it is likely that this practice will continue. The other criterion for the granting of an order is whether it is reasonable. If the grant would be unreasonable, the court will refuse it (sec. 140c, para. (2)).

Urgent Applications. In urgent cases, an inspection order can be granted on a summary proceeding, even on an

ex parte basis (sec. 140c, para. (3)). Part 3 of section 140c refers to the general provisions of German procedural law concerning preliminary measures (sections 935 to 945 of the Civil Procedure Law). According to these provisions, the courts can grant preliminary measures, in particular preliminary injunctions, often only a few days after the related petition is filed, provided that the petitioner can demonstrate that the requirement for urgency has been met. In practice, this means that the petitioner must show that the preliminary measure is needed to prevent irreparable harm and that the petitioner acted quickly, *i.e.*, filed the petition shortly after having gained knowledge of the relevant facts. Again, if necessary, the court will ensure the secrecy of a respondent's confidential information. However, bear in mind that an order of this type does not come free. If no actual, or at least imminent, infringement can be found, the respondent is entitled to claim compensation for damage incurred (sec. 140c, para. (5)).

UNITED KINGDOM

Limited Impact of the Enforcement Directive. In implementation terms, apart from small amendments to existing legislation (such as to copyright legislation to give a presumption in favor of authorship/ownership), the current status of procedure in intellectual property matters (and civil litigation in general) left little from the Enforcement Directive to implement. (The full U.K. consultation paper issued by the U.K. IPO, including an article-by-article assessment, can be found at http://www.ipo.gov.uk/consult-enforcement.pdf (last visited December 16, 2007).) In fact, in relation to the key thrust of Articles 6 and 7, the U.K. decided not to implement them at all.[2] This is because, unlike procedure in continental Europe, U.K. procedure already has a general disclosure process, as well as specific measures in intellectual property actions.

The Obligation to Provide Standard Disclosure. The elements of Article 6 are already accounted for in the U.K. by the Civil Procedure Rules ("CPR"), which allow parties to obtain disclosure of documents relevant to the proceedings that are in the custody or control of another party (CPR, Part 31). While not as broad as disclosure in the United States, disclosure in U.K. intellectual property actions remains wider than that contemplated by the Enforcement Directive and is a standard procedure imposed as a matter of course in each action. In short, you don't have to ask the court for it. Standard disclosure requires a party to disclose the documents (a) on which it relies; (b) that adversely affect its own or another party's case; or (c) that support another party's case (CPR, Rule 31.6). There is also the possibility of obtaining pre-action disclosure in the U.K. (the test is the same as for standard disclosure), ordered if the applicant can show that it is desirable for fairly disposing of anticipated proceedings (CPR, Rule 31.16). Further, following a principle established through case law (*Norwich Pharmacal Co. v The Commissioners of Customs and Excise* [1974] RPC 101; *see also American Home Products v Novartis* [2001] FSR 41) and maintained by the CPR, disclosure can also be ordered against a third party not involved in proceedings (CPR, Rule 31.17).

Rules Specific to Intellectual Property Cases. In intellectual property cases, there are further specific rules that define the scope of disclosure and, again, provide a more established and accessible framework for a party to access key documents than that anticipated by the Enforcement Directive. While disclosure in relation to validity of a patent is limited to two years either side of the priority date (which is more than sufficient for this issue), it is in relation to infringement that the U.K. system is really beneficial to the patentee (CPR, Part 63 PD, para. 5.1). First, the alleged infringer will be ordered to give a full product and/or process description of the alleged infringement, which must be verified by a suitable representative who *must* be made available for cross-examination (Technip France SA's Patents [2004] RPC 46). Further, especially in relation to process claims, the court will readily order an inspection at a defendant's premises (or other suitable venue), often attended by the judge and open as a matter of course to the defendant's expert witness. These steps provide a unique capability for a patentee to pin down an infringer well before trial and permit potentially decisive expert evidence to be led on questions of infringement, as well as informed cross-examination, without the need to fish for answers at trial. If this is not enough, there is also the opportunity (reflected in Article 6 of the Directive) to apply to the court for an order for specific disclosure of any documents the petitioning party believes to be in a party's control that would assist and that have not already been disclosed (CPR, Rule 31.12).

Confidentiality. Article 6 also refers to confidentiality. Confidentiality clubs are a frequent and necessary feature of patent actions and have been in place (in recent times)

since the principles laid down in *Roussel-Uclaf v ICI* (No. 2) [1990] RPC 45. Membership in these clubs will be extended to lawyers, experts, and members of the client (technical or otherwise) from whom instructions are taken. Simply, membership extends to anyone who can be shown to have a genuine need to know the information for the purposes of the U.K. litigation. Note, however, that a party has the right to object to the inclusion of given individuals, and the court will not readily extend a club to non-U.K. lawyers involved in litigation on the same point in other jurisdictions, as they do not need to know the information for the purposes of the U.K. litigation. It is important always to bear in mind that, under U.K. procedural rules, disclosure is given only for the purposes of the U.K. litigation; it cannot be used outside the U.K., and to do so would be a contempt of court.

The Preservation of Evidence. Article 7 addresses the ability to preserve evidence. This has long been utilized (especially in piracy, counterfeit, and trademark actions, although there is no reason it cannot extend to patent actions) in the U.K., where one can make a search-and-seizure application before proceedings start. This procedural step is derived from case law (*Anton Piller KG v Manufacturing Processes Ltd* [1976] Ch 55), and for such an order to be granted, there must be a genuine concern that evidence may be destroyed. Further, and unrelated to a right to search and seize evidence for its preservation, the court also has the general power to grant an injunction in order to preserve evidence (section 37 of the Supreme Court Act 1981; section 38 of the County Courts Act 1984; and CPR, Part 25).

The remainder of the requirements of Article 7 relating to, for example, *ex parte* hearings and notifications are also already incorporated into established U.K. procedure (CPR, Parts 23 and 25 (including PD)). An important ramification of obtaining this type of order is that the court will ensure that the party that obtained the search-and-seizure order commences proceedings quickly (CPR, Rule 25.2 and PD 25, paras. 4.4 and 5.1). Therefore, such an order should be obtained only if there is a well-developed plan or strategy already in place. If not (and proceedings are not forthcoming), the petitioning party will be liable for the losses of the party against which the order was made.

The Effect of the Enforcement Directive. In conclusion, the well-established principles of U.K. procedure have long been set out in case law and, as developed by specific and streamlined procedures, have resulted in the implementation of Articles 6 and 7 of the Directive being met with a firm "no action required." Overall, the procedures in the U.K. already provide a party with ample routes for obtaining, protecting, and preserving documentary and other evidence, routes that predate the Directive and are wider in scope than those anticipated by Articles 6 and 7.

FRANCE

Current Status. The Enforcement Directive has been implemented in France. After the vote of the Senate on September 19, 2007, the National Assembly adopted the bill on October 2, 2007. (The text is available at http://www.assemblee-nationale.fr/13/ta/ta0037.asp (last visited December 16, 2007).) The only step that remains to be taken is the publication of the implementation decree.

Reinforcement of Existing Procedures. The new law seeks to reinforce the provisions relating to evidence in intellectual property infringement cases. Although France, unlike the common-law countries, does not have any general discovery process, there were already some specific provisions in the French Intellectual Property Code, such as the counterfeiting seizure, that facilitated proof of infringement for the intellectual property rights holder.

For a counterfeiting seizure to be granted, the rights holder (more precisely, a patent, trademark, design copyright, or software rights holder) first requires an order from the president of the first-instance court. (The relevant articles in the Intellectual Property Code are Articles L. 615-5 for patents, L. 716-7 for trademarks, L. 521-1 for designs, L. 332-1 for copyright, and L. 332-4 for software.) After this, a bailiff is instructed to go to the counterfeiter's premises and describe and/or seize the alleged infringing goods and any documents that relate to the alleged infringement. After seizure, the rights holder must start an action on the merits before the competent civil or penal court within 15 days, or 30 days for copyright infringement cases. If this is not done, the counterfeiting seizure will be void and

the rights holder can be forced to pay damages. Further, as provided for by Article 7.1 of the Enforcement Directive, French legislation already allowed the judge to order the rights holder to provide security. The judge was obliged to request security even where the alleged infringement was of a registered design or model and the plaintiff was not French (Article L. 521-1).

Changes as a Result of the Enforcement Directive. However, thanks to certain provisions of the Enforcement Directive, the procedure for obtaining evidence of infringement within the French intellectual property system has undergone some changes. First, the "counterfeiting seizure" will from now on be extended to the majority of intellectual property rights, including new plant varieties (section 20.2 of the Law of October 2, 2007) and appellations of origin (section 28.3 of the Law of October 2, 2007). Second, Article 6 of the Enforcement Directive, which provides the victim of infringement with a right of information, has now been implemented, providing that:

> Production of documents or information can be ordered if there does not exist legitimate prevention.... The documents or required information relate to:
>
> a) Names and addresses of the former's producers, manufacturers, distributors, suppliers and other holders of products or services, as well as wholesalers, recipients and retailers;
>
> b) Quantities produced, marketed, delivered, received or ordered, as well as the price obtained for the products or services in question.

(Respectively, sections 3, 12, 26, and 20 of the Law of October 2, 2007, for patents, trademarks, designs, copyright, and new plant varieties.) This provision will certainly improve the ability of the rights holder to evaluate the damage it has suffered.

CONCLUSION

Despite the fact that the Enforcement Directive has affected intellectual property enforcement measures in Europe, the options on how to obtain evidence and their extent remain different. While the Enforcement Directive aimed to harmonize procedures throughout the European Union, in reality it does not alter the need to look at the procedures available in each jurisdiction when considering a European litigation strategy. Each of the main jurisdictions reviewed in this article—Germany, the U.K., and France—retains its own approach to obtaining and preserving evidence. The impact of the Directive in France and Germany is to supplement, rather than replace, existing procedures, while in the U.K., the current system means that Articles 6 and 7 did not need to be implemented. It is thus still advisable to examine the existing options in different jurisdictions to enforce intellectual property rights effectively on a pan-European scale. ⏭

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ENDNOTES

[1] von Welser and González, *Marken- und Produktpiraterie*, page 19.

[2] The Intellectual Property (Enforcement, etc.) Regulations 2006 (SI 2006/1028), including the Explanatory Memorandum to those Regulations issued by the Department of Trade and Industry. *See also* 1 above.

BY TONY CHEN

BEIJING HIGH COURT UPHOLDS VIAGRA PATENT IN CHINA

On September 7, 2007, the Beijing High People's Court rendered a decision in favor of Pfizer in a dispute about the validity of Pfizer's Chinese patent covering sildenafil citrate, more familiarly known as Viagra. This verdict rejects an appeal by a group of Chinese generic-drug companies and maintains the June 2, 2006, ruling of the Beijing No. 1 Intermediate People's Court, which overturned the July 5, 2004, decision of the Patent Reexamination Board ("PRB") invalidating Pfizer's Viagra patent in China. With no further appeal available, this decision has closed a chapter in a patent dispute started in China six years ago. What has happened in this case presents a colorful illustration of the short but eventful history of patent protection of pharmaceuticals in China.

NO PATENT PROTECTION FOR PHARMACEUTICAL COMPOSITIONS IN CHINA PRIOR TO 1993

Viagra first became a patent subject when Pfizer filed U.K. patent application No. GB 9013750 on June 20, 1990. On the basis of this filing, Pfizer obtained patents in the U.S., Europe, Japan, and many other countries to protect sildenafil, its salts, other related compounds, and their use for treating angina, hypertension, heart failure, and atherosclerosis. Although China's patent law was enacted in 1984, it did not protect pharmaceutical compositions prior to 1993. Pfizer did not file any application in China based on the 1990 U.K. patent application.

PATENT PROTECTION FOR VIAGRA BECAME POSSIBLE IN CHINA IN 1993

In 1993, China joined the Patent Cooperation Treaty ("PCT") and amended its patent law to protect pharmaceutical inventions. On June 9, 1993, Pfizer filed U.K. patent application No. GB 9311920.4 to protect the use of sildenafil and other compounds for treating male erectile dysfunction. This patent application entered China through the PCT. On September 19, 2001, Pfizer obtained Chinese patent ZL94192386.X with a single claim:

> The use of 5-[2-ethoxy-5- (4-methyl-1-piperazinylsulphonyl)-phenyl]-1-methyl-3-n-propyl-1,6-dihydro-7H-pyrazolo[4,3-d] pyrimidin-7-one or of a pharmaceutically acceptable salt thereof, or of a pharmaceutical composition containing any of the same, for manufacture of a medicament for curative or prophylactic treatment of erectile dysfunction in a male animal, including man.

The only compound named in the claim is sildenafil. No divisional application was known to have been filed by Pfizer to pursue additional claims.

THE VIAGRA PATENT UNDER ATTACK IN EUROPE

European patent EP 0 702 555, based on the 1993 U.K. application, was granted to Pfizer on March 11, 1998. This European patent has 11 claims: claims 1 to 9 cover the use of sildenafil and related compounds for treating or preventing erectile dysfunction, while claims 10 and 11 relate to the mechanism of action of these compounds:

10. The use of a cGMP PDE inhibitor, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition containing either entity, for the manufacture of a medicament for the curative or prophylactic oral treatment of erectile dysfunction in man.

11. The use according to claim 10 wherein the inhibitor is a cGMP PDEv inhibitor.

Thirteen parties filed oppositions to the European '555 patent in December 1998. A revocation petition was also filed in the U.K. in February 1999. Thereafter, all claims of U.K. designation were revoked in November 2000 for lack of inventive step, and all claims of the European '555 patent were ruled invalid for lack of inventive step. Claims 10 and 11 of the European patent were also ruled invalid for lack of support for "oral" treatment.

THE PATENT INVALIDATION PETITION AGAINST THE VIAGRA PATENT IN CHINA

China's patent law does not include patent opposition or revocation proceedings; invalidation is the only means of challenging patent validity. An invalidation petition can be filed any time during the term of a Chinese patent by any individual or company that has reason to believe the patent is invalid in part or in whole. There is no standing requirement or requirement of timely filing. The patentee has opportunities to rebut invalidation arguments.

The Patent Reexamination Board of the State Intellectual Property Office ("SIPO") has exclusive jurisdiction in hearing and deciding invalidation petitions. The losing party has the right to appeal to the Beijing No. 1 Intermediate People's Court by filing an administrative lawsuit against the PRB.

On September 19, 2001, the day Pfizer was granted its Viagra patent in China, a Beijing resident by the name of Huaping Pan filed an invalidation petition against the patent. Thereafter, 12 Chinese companies also filed invalidation petitions against the patent. These 13 petitions were consolidated by the PRB for review. The petitioners used many of the arguments presented in Europe and came up with new arguments as well.

On July 5, 2004, the PRB made public its decision declaring the Viagra patent invalid on the ground of insufficient disclosure, while declining to rule on two other arguments presented by the petitioners, namely, the claim's lack of support from the specification and lack of inventive step.

On September 28, 2004, Pfizer filed an administrative lawsuit before the Beijing No. 1 Intermediate People's Court to appeal the PRB's invalidation decision. This lawsuit

effectively prevented Chinese generic-drug companies from obtaining marketing approval to sell their competing products because a Chinese patent is treated as valid until the invalidation decision has become final and nonappealable, and the State Food and Drug Administration ("SFDA") of China will not grant marketing approval to generic drugs while a valid patent exists for the original product.

Pfizer won the first-instance lawsuit on June 2, 2006, when the court ruled that the facts had been wrongly determined and the law erroneously applied in the PRB's invalidation decision. The court remanded the case to the PRB for further examination of the invalidation arguments that had not been addressed by the PRB.

This case was then appealed to the Beijing High People's Court by 10 of the 13 petitioners. The September 7, 2007, decision of the Beijing High People's Court is the final ruling regarding the invalidation ground of insufficient disclosure.

Unless the petitioners withdraw their invalidation requests, the PRB now has the task of deciding whether Pfizer's claim lacks support from the specification and lacks inventive step. Any such decision by the PRB is again subject to appeal and thus triggers another round of court proceedings.

LESSONS LEARNED ABOUT PATENT PROTECTION OF PHARMACEUTICALS IN CHINA

From its genesis in 1984, patent protection in China has evolved by leaps and bounds as China's economy has become integrated with the rest of the world. Recent statistics show that China has the world's third-busiest patent office (after Japan and the United States) in annual patent filings. More significantly, more patent infringement lawsuits were filed in China than in the United States in 2005 and 2006, and most of these lawsuits were between Chinese parties. This phenomenon has emerged despite a lack of formal discovery and the low level of damages granted by Chinese courts.

The Viagra patent story shows that a patent can be as effective in China as elsewhere in rewarding innovation and blocking generic competition. It is imperative that innovative pharmaceutical companies, such as Pfizer, take proactive steps in China to improve the quality of patent prosecution, gain sophistication with patent invalidation, and enforce patents against infringers. Enforcement of intellectual property rights in China will improve more visibly when more parties exercise their legal rights in the courts.

In the meantime, the world awaits the PRB's decision on the remaining invalidation arguments involving Viagra. ⏭

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Patent Litigation and Prosecution Trends

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With regard to patent prosecution, Micron Technology, IBM, and Samsung should continue to be the dominant players receiving United States patents in the coming years. Philips and AMD should be the major filers of PCT applications. Semiconductor Energy Laboratory should continue to be an aggressive filer, as it has been since 2005. Expect patent activity in the area of active solid-state devices to remain dominant, followed by process protection in semiconductor device manufacturing. ⏭

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ENDNOTE

[1] Almost 75 percent of the value of publicly traded companies in the United States comes from intellectual property assets, up from around 40 percent in the early 1980s. Around $45 billion is collected annually in the United States from technology licensing alone; $100 billion is collected worldwide, and that figure is rapidly increasing. *The Economist*, Issue 950, October 22, 2005.

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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.