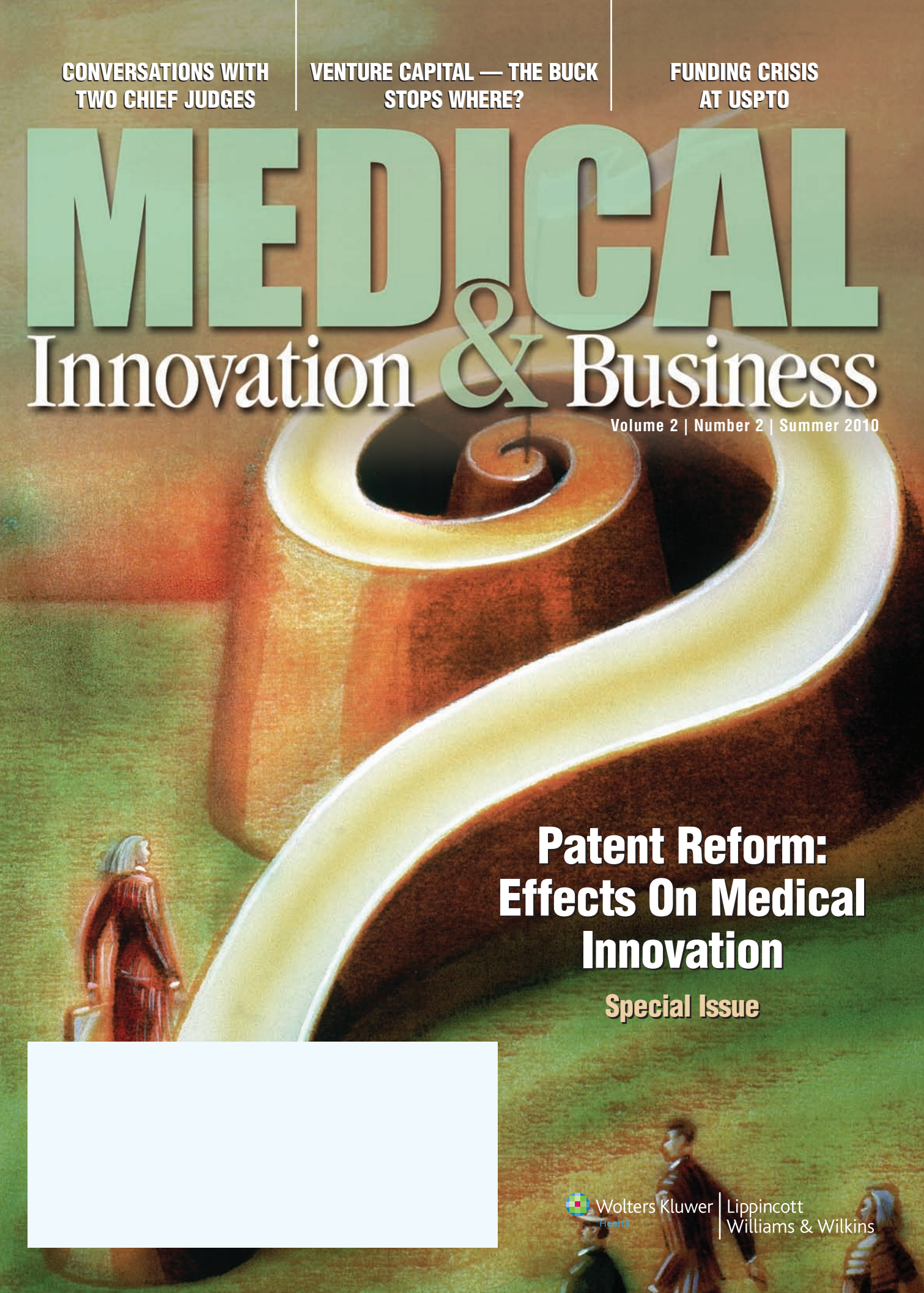
CONVERSATIONS WITH TWO CHIEF JUDGES

VENTURE CAPITAL — THE BUCK STOPS WHERE?

FUNDING CRISIS AT USPTO

MEDICAL Innovation & Business

Volume 2 | Number 2 | Summer 2010



Patent Reform: Effects On Medical Innovation

Special Issue

Wolters Kluwer Health | Lippincott Williams & Wilkins

Summer 2010 Volume 2 • Number 2

MEDICAL Innovation & Business

Medical Innovation & Business (ISSN: 1943-0701) is published quarterly by Lippincott Williams & Wilkins, at 16522 Hunters Green Parkway, Hagerstown, MD 21740-2116. Business offices are located at 530 Walnut Street, Philadelphia, PA 19106-3621. Periodicals postage paid at Hagerstown, MD, and at additional mailing offices.

Annual subscription rates worldwide: In the US: Personal $82.50, Institutional $593.00; Outside the US: Personal $132.50, Institutional $643.00. Single copies $162.00. United States residents of AL, CO, DC, FL, GA, HI, IA, ID, IN, KS, KY, LA, MD, MO, ND, NM, NV, PR, RI, SC, SD, UT, VT, WA, and WV add state sales tax. (The Canadian GST tax of 7% will be added to the subscription price of all orders shipped to Canada. Lippincott Williams & Wilkins' GST Identification Number is 895524239. Publications Mail Agreement #1119672.) Subscriptions outside the United States must be prepaid. Prices subject to change without notice. Visit us online at www.medinnovbusiness.com.

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Shifting Sands? The Intellectual Property Basis of Biotechnology

As the United States has changed its economic model from the industrial base of the early and mid twentieth century to the discovery and entrepreneurial base that now characterizes large portions of the modern economy, the key role of intellectual property has become critical. Without the ability to patent discoveries in an understandable and predictable fashion, the financial investments in discoveries would not be available to convert them from ideas to demonstration projects and ultimately to economically potent companies. As a result, the United States has long decried other countries which historically have not abided by the rules that the rest of the world used to protect intellectual property.

As an example, China was long thought of as notorious for ignoring patent protections and for changing the rules under which the ownership of ideas could be determined. They still have many issues to resolve over the free flow of information and the use of the Internet, but basic intellectual property as it applies to biotechnology is now is largely regularized. India long sought to avoid intellectual property recognition, for instance on drugs for patients with AIDS, because it had a social need for access to those drugs without the ability to pay for them. Now that the country has itself become a source of intellectual property for the development of drugs, it too has regularized the approach to intellectual property.

All through this period, the United States has had a relatively stable environment for the principles of management of intellectual property as it applies to biotechnology. Starting with the Bayh-Dole Act, which this journal has covered extensively in several issues, and moving on to the discussion of the economic issues associated with companies that patent genes, the scientists, the companies, and the markets have known what to expect. Now this may no longer be true.

—THE MYRIAD CASE

On March 29th, the U.S. District Court for the Southern District of New York announced a decision that patents held by Myriad Genetics on genes associated with breast cancer violated long-standing precedents which prevented the patentability of natural phenomena. The court said that the DNA over which Myriad Genetics Inc. claimed a monopoly via patents could not be allowed since it claimed patents for "the physical embodiment of laws of nature."

The court also rejected Myriad's patent claims on tests that the company had developed in which it compared gene mutations to determine a patient's genetic basis for an increased likelihood for breast or ovarian cancer.

Myriad plans to appeal this decision to the U.S. Court of Appeals for the Federal Circuit, which oversees patent cases. More importantly, this ruling had the effect of casting doubt on other existing patents on other genes in the human genome.

From a practical point of view, this ruling, if upheld, could invalidate large numbers of similar genetic based patents and make the search for genes that cause disease and the ability to develop specific tests to screen patients for these genetic markers more difficult. Financing the discoveries and the development of individual tests might become economically impractical if this ruling is upheld.

On the other hand, mass screening of populations for genetic defects that predispose to illness (personalized medicine) might be enhanced by these developments. From the point of view of mass screening, the idea of negotiating with dozens if not hundreds of companies to acquire the ability to put together a large panel of tests was problematic if the Myriad approach is to be followed. It might never have been possible to put together meaningful panels of tests if the complexity of licensing under different terms from different companies was the model to be used.

As a result, long term implications of the decision are far reaching and intellectual property is now up in the air for a whole host of biologic discoveries.

Editorial

—THE NATIONAL INSTITUTE OF HEALTH/NATIONAL CANCER INSTITUTE INTELLECTUAL PROPERTY POLICIES

Virtually simultaneously with the District Court ruling, the Federal Register of April 6th, 2010 (Volume 75 No 65, p17412-17414) announced a proposed change in intellectual property agreements with certain funding recipients using the Cancer Therapy Evaluation Program (CTEP). As is stated in the Federal Register, "if finalized, (it) would establish that potential applicants for CTEP funding should include an assurance of agreement with the recommended Intellectual Property Option and Institution Notification if they wish to be considered for funding support to carry out any CTEP sponsored clinical trial for which CTEP holds the Investigational New Drug (IND) Application.

The basic issue is that "the current IP option language is silent as to the disposition of intellectual property developed from data and Agent-treated samples. As a result, both Collaborators and Institutions have claimed an ownership interest in inventions generated from these data and materials."

The proposed rules, now open for discussion, are suggested to "clarify" those issues, but there will be much lack of clarity until the rules are finalized and the implementation of them, if approved, becomes reproducible and standardized.

With this as a background, the journal has an issue specifically devoted to the changing landscape of intellectual property in biotechnology and the timing could not have been more appropriate. ■

By Renee Kaswan, David Boundy and Ron Katznelson,
Special Guest Editors

Patent Reform: Effects On Medical Innovation Businesses

This special issue of Medical Innovation & Business is devoted to evaluating the potential consequences of the Patent Reform Act of 2010, currently pending in the Senate as S.515 and in the House of Representatives as H.R.1260, with emphasis on university researchers, university spin-offs, emerging start-ups and small life sciences companies, especially those in the medical sciences.

We, as the editors of this special issue, are deeply concerned that the Patent Reform Act will severely harm medical and small company innovation. As an academic researcher who invented a blockbuster drug, Restasis®, a patent lawyer who has helped small companies and their investors, and an inventor/entrepreneur who founded and raised investment capital for two start-up companies based on patentable inventions, we have seen how the robust American patent system enables new, innovative companies to secure investment funding and to negotiate with strategic partners. We have seen how patents enable entrepreneurs and researchers to turn raw ideas into useful products. A strong patent system benefits patients and helps the economy grow by giving companies the competitive position and incentives they need to get new pharmaceuticals, medical devices and procedures into the technology pipeline. Innovators can invest in R&D, testing and FDA approval because patents allow investors to recoup their investments in these staggeringly expensive activities. We are very concerned that the Patent Reform Act undercuts the entire idea-to-product pipeline by weakening the investment value of patents in several ways that selectively impact the most innovative companies. If Congress gets Patent Reform wrong, products characterized by high development costs and low production costs, typical in medical innovation, will die in the lab. The capital investment necessary to get ideas to market will simply dry up, and be diverted to companies that don't need patents to attenuate risk.

In this special issue we have assembled a panel of experts, some to give a "state of the patent system" overview, some to evaluate specific effects of the Patent Reform Act. Many of the articles address Patent Reform issues that are important to classes of companies that have not been heard from, either because they don't exist yet, or because they are too small and decentralized to sponsor a major lobbying campaign: today's small companies, tomorrow's start-ups, tomorrow's university spin-offs, with a focus on medical companies.

As Patent Reform was originally framed among industry groups in the early 2000's (before anything was introduced in Congress), the goals were two fold: (a) to react to public outcry against "bad" patents, and (b) to simplify a few parts of the patent system. Patrick Doody discusses the problem of defining "bad" patents in his article *What is a Bad Patent?* and Dr. Ron Katznelson describes the adverse effects that the one-sided "patent quality" outcry campaigns have had on Patent Office operations in his article *Patent Reforms Must Focus on the U.S. Patent Office.*

As introduced in 2005, the Patent Reform Act reflected the concerns of two large lobbying coalitions, the Coalition for 21st Century Patent Reform headed by several large pharmaceutical and manufacturing companies, and the Coalition for Patent Fairness headed by the large information technology companies. PhRMA and BIO (the trade associations for the large pharmaceutical companies and biotechnology companies) joined the fray to oppose some of the more heavy-handed

We have seen how patents enable entrepreneurs and researchers to turn raw ideas into useful products. If Congress gets Patent Reform wrong, products characterized by high development costs and low production costs, typical in medical innovation, will die in the lab.

anti-patent proposals. In spring of 2007, the Innovation Alliance, a group of non-manufacturing R&D companies, staked out the most pro-patent positions of the major lobbying coalitions and began to lobby for stronger patents and better examination.

Small businesses and start-ups weren't effective in their messaging until year end 2009. Though independent inventors tried to make their voices heard earlier, in several hearings before the Senate Judiciary Committee, not a single representative for start-up companies or for individual inventors was called to testify and the House Judiciary Committee did only slightly better. It was not until late 2009 that groups such as the National Small Business Association and the newly-formed Small Business Coalition on Patent Legislation assembled enough voices to be heard on issues important to small companies, start-ups, individual inventors and university faculty.

In March 2010, a compromise was announced among several senators, the Patent Office and the large companies that had lobbied the bill for years. The compromise withdrew or softened most of the anti-patent provisions. For example, a provision that would, in many cases, have reduced litigation damages below the value of a voluntarily-negotiated license was replaced by a provision that requires judges to control damages presentations and evidence at trial to restrict runaway jury discretion, as explained by Philip S. Johnson in his article *The Gatekeeper Patent Damages Compromise of S. 515*.

The March 2010 Senate compromise scales back provisions for Patent Office re-review of issued patents' validity, but nonetheless leaves a patentee with less certainty and less access to the capital markets than under current law. Meanwhile, the most anti-patent version of post-grant review remains pending in the House of Representatives. The business aspects of post-grant review are discussed by John Neis in *Post-Grant Review—Our Next Nightmare? VC Perspective* and the legal aspects are discussed by Dr. Kevin Noonan in *Post-Grant Review of U.S. Patents: Will Past Be Prologue?* Dr. Charles E. Miller and Daniel P. Archibald discuss a related provision that at first glance appears to be technicalia only for patent attorneys, but on closer scrutiny reveals major erosion of current judicial protections that would have substantial effects on inventors, in *Attenuated Judicial Review of Patent and Trademark Office Decisions: "Technical Amendment" or Stacking the Deck Against Inventors?*

> The nominal purpose of the bill was to reduce the costs of patent litigation, but it overlooks the costs that will arise as companies adjust their behavior to the new law. Also, the bill selectively favors large international companies to the disadvantage of American-based start-ups and small companies.

Another provision, long pushed by a group of large pharmaceutical and industrial companies, remains in both versions of the bill: it would redefine the one year deadline for filing a patent application and would significantly impair the ability of American companies to develop their products before seeking patent protection. The nominal purpose was to reduce the costs of patent litigation, but the provision overlooks the costs that will arise as companies adjust their behavior to the new law. Also, the provision selectively favors large international companies to the disadvantage of American-based start-ups and small companies. David Boundy and Matthew Marquardt discuss this provision in *Patent Reform's Weakened Grace Period: Its Effects on Startups, Small Companies, University Spin-offs, and Medical Innovators*. This provision moves "derivation" (that is, where a person either reuses or republishes something learned from the patentee/inventor) from a peripheral role under current law to a center-stage player under Patent Reform. Charles Gholz, in his article, *Would Derivation Proceedings be the Same as Derivation Interferences?* points out a number of open questions and differences between current law and the proposed statute.

Not surprisingly, as of late May 2010, the bill reflects the interests of the large market incumbents that have extensively lobbied the bill and is, we fear, skewed against start-ups, small companies, individual inventors, university faculty inventors, university spin-offs and similar small entities. These

adverse effects arise, we believe, simply because the most important questions haven't been asked. In this issue, we hope to get many of these concerns on the table, so that informed public debate can occur. The relationship of venture capital, small businesses and the patent system are discussed by Gary Lauder in *Venture Capital—The Buck Stops Where?* (Boundy and Marquardt also discuss the differences between small companies' and large companies' use of the patent system.)

Finally, lawmakers seem not to have considered transition costs. Business and investment under the present Patent Act are predictable because most issues have been settled by a century of court decisions, developed at great expense and after excruciating delay. Each revision to the Patent Act introduces new ambiguities that will require expensive litigation to reach a new judicial interpretation. Sweeping changes will inevitably introduce many unintended consequences that will be exploited by litigators. Industries will be forced to readjust to a whole new set of rules and will be adrift in a new zone of uncertainty for years, in some cases for decades, until the provision is judicially resolved. Lawmakers have not attempted to quantify these transition costs or evaluate the effects of discouraging private capital investment in innovation while these ambiguities and business risks are resolved. Mr. Gholz's article raises a number of these issues.

Strikingly, there is one feature of the patent system that *everyone* agrees needs major reform: the Patent Office. The Office is underfunded and woefully backlogged. For the last decade, examiners' incentives have been misaligned with the public policy goals of the patent system. Examiner morale has been low and examiners have been leaving the Patent Office in droves. Because the Patent Office has been unable to maintain a cadre of experienced examiners, productivity and perceived patent quality have fallen, and backlogs have nearly tripled in a few short years. Nearly all stakeholders agree that the major factor is "fee diversion," where Congress sets the Patent Office's fees at cost-recovery level, but then appropriates a smaller budget to the Patent Office. Effectively, Congress raids the Office and inventors in order to fund general government. Yet, on this core issue where everyone (except the Appropriations Committee) is in complete agreement—Congress must guarantee that the Office can keep its fees—the bill is eerily silent. It even neglects to fund the extra work that the bill asks the Patent Office to do. Nicholas Godici, the former Commissioner of Patents and Acting Director of the Patent and Trademark Office, discusses funding for the Patent Office in *Adequately Funding the USPTO: A Critical Problem That Must Be Solved*. Dr. Katznelson, an acknowledged authority on statistical trends of world patent systems and the U.S. Patent Office in particular, discusses in his article several other problems that stem from the chronic under-investment in the U.S. Patent Office.

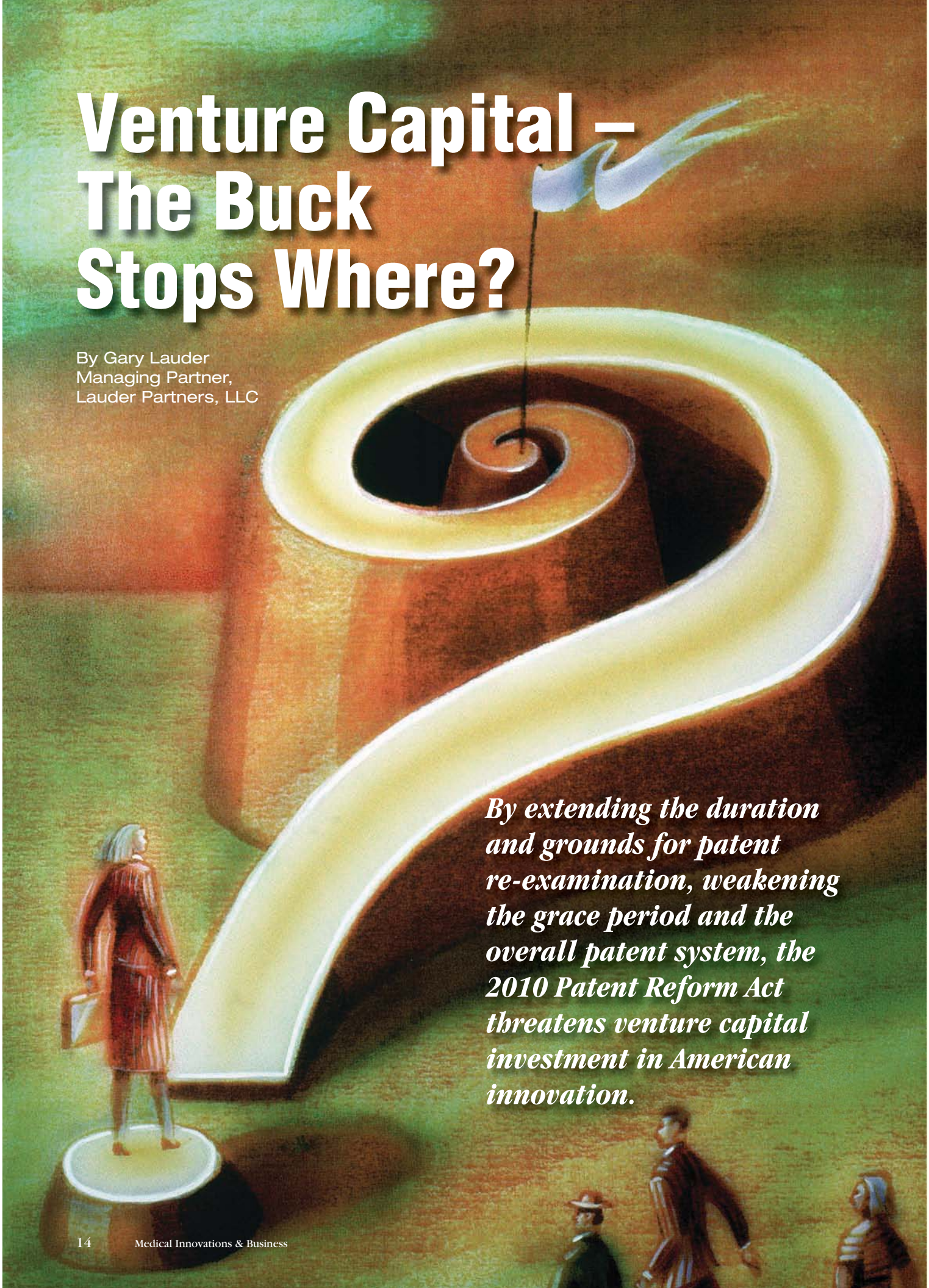
Many of the issues that originally prompted calls for Patent Reform have been addressed by the courts. For example, the Supreme Court raised the bar for the amount of difference over the prior art required for patentability and made it more difficult for patentees to win an injunction to shut down infringement. The Federal Circuit, the federal appeals court that hears appeals in patent infringement litigation from throughout the country, raised the bar for trebling of damages, by requiring a higher showing of willfulness. The role of the courts in patent reform is discussed by the retiring and incoming Chief Judges of the Federal Circuit, Paul Michel and Randall Rader, in an interview with Matthew Dowd, *Conversations with Two Chief Judges.* Also, Ed Reines and Nathan Greenblatt comment on a provision that was in earlier versions of both bills and has now been removed only from the Senate bill, in their article *The Proposed Interlocutory Appeals Provision of Patent Reform—Is It Dead Yet?*

Strikingly, there is one feature of the patent system that *everyone* agrees needs major reform: the Patent Office. Yet, on the core issue of "fee diversion," where everyone is in complete agreement, the bill is eerily silent.

We believe these issues are as important to the long-term future of the U.S. economy as anything pending before Congress. We hope that the insightful views of our authors are instructive for you. ■

Venture Capital – The Buck Stops Where?

By Gary Lauder
Managing Partner,
Lauder Partners, LLC



By extending the duration and grounds for patent re-examination, weakening the grace period and the overall patent system, the 2010 Patent Reform Act threatens venture capital investment in American innovation.

VENTURE CAPITAL INVESTMENT AND PATENT PROTECTION: VITAL TO INNOVATION

All technology companies are working toward the same goal—to translate brilliant ideas into commercially viable products. Ideas on a blackboard are useless; ideas only mean something when an investor and an entrepreneur join together to take the risk to turn ideas into product. For products that require high fixed-cost startup investments, that blackboard-to-commercialization translation only happens when some barrier to entry against competitors exists, so that profits can last long enough to recover the up-front investments. Our founding fathers recognized this and put it in our constitution: Article I, Section 8 reads "Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." Thus, the patent system.

In 2008, venture capital-backed companies employed more than 12 million people and generated nearly $3 trillion in revenue.[1] Respectively, these figures accounted for 11% of private sector employment and represented the equivalent of 21% of U.S. GDP during that same year. Venture-backed companies outperformed the overall economy in terms of creating jobs and increasing revenue, and the venture capital industry continues to grow entire new industries nearly from scratch. The VC community is the primary source of funding for emerging life sciences, technology, and alternative energy companies. In 2007 alone, VCs committed $25.9 billion toward innovative companies in these areas. If one adds in the companies that were *formed* with venture capital investment and have since graduated to the public capital markets, about a quarter of all economic activity in the United States exists because entrepreneurs and new companies were able to show investors that they were a better bet than established "blue chip" companies.

Because small companies do not have "legislative affairs" staffs, the vast majority are completely unaware of the existence of Patent Reform—let alone its provisions. They lack the financial wherewithal to lobby their views on Capitol Hill. The members of Congress and staffers who would enact this legislation have barely sought the perspectives of inventors, entrepreneurs or venture capitalists in the past few years, so it is not surprising that the current "compromise" bills are compromises among big companies that fail to reflect effects on small ones. Their interests—and therefore mine—are about to be buried. Tomorrow's companies—the companies that don't exist yet, who would depend on the patent system to come into existence—by definition have no representation or lobbying voice at all. That fact was my strongest motivation to take on this issue.

HOW PATENTS FUEL AMERICAN INNOVATION

Patents are not about technology. Patents are about investment, and getting innovative products off the drawing boards and into consumers' hands. Initial ideas are usually cheap. But turning an idea into a product—proof-of-concept testing, identifying the best chemical compound out of a large genus, engineering, debugging, prototype-to-product engineering, ruggedizing and reliability engineering, testing for "safe and effective," building a production facility, building a distribution and sales channel, marketing to develop demand—those steps are *expensive*.

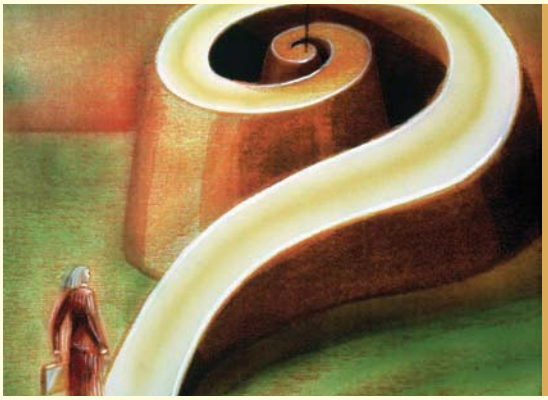
VCs are investors, not gamblers. VCs only invest in companies that can make convincing showings that they have a good likelihood of being profitable, and maintaining that profitability for years. When a new company sets out in a risky new technological direction and the company will require substantial investment to develop its raw ideas into a profitable business and profitability is years in the future, VCs need assurance that the risks carry a reward, that the R&D funding that they provide will generate a return once the company and new product succeed. Nobody wants to invest in "the next big thing" if someone else will run off with the profits!

In most high-dollar venture investments, patents are essential to the company's and VC's ability to ensure that success will not be taken away by competitors who free ride on the original company's R&D. The vibrant VC and startup environment in the United States will continue to exist only if companies that present great technological risk can show a lower competitive risk. Patents provide a little cocoon of protection *against competitors*. That tips the investment decision-maker's scale just a little from "Let's do this the safe way" to "Let's do it the new but potentially-higher-payoff way." That's how patents turn ideas into useful products, and create value for entrepreneurs, investors, and for society.

SPECIFIC CONCERNS WITH S.515 AND H.R.1260

Two patent reform bills are currently pending, S.515 in the Senate and H.R.1260 in the House of Representatives. Any patent reform must account for the needs of the small, emerging growth companies that are key components of U.S. economic growth and innovation. While these two bills reflect well-intentioned efforts of the staffers that negotiated them

1. National Venture Capital Association Report, "Venture Impact: The Economic Importance of Venture Capital-Backed Companies to the U.S. Economy", p 2, (2009).



Patent Reform must not impose inefficient paperwork demands on a small company's scarce capital or on the time of key people for either acquisition or defense of patents.

with the help of representatives of large companies, both are all but certain to have devastating effects on small companies and venture capital investment.

The challenge for Congress is to ensure that policy decisions reflect and account for different industry business models and the business realities of small companies. For example, life sciences companies need to protect the fruits of their research, testing and regulatory approval investments, because many life sciences products can be reverse engineered from the extensive disclosures required for regulatory approval. Policy decisions must maintain small companies' ability to assemble ideas, capital, and productive capacity inter-firm on the same footing as large companies that build their teams intra-firm. Patent Reform must not impose inefficient paperwork demands on a small company's scarce capital or on the time of key people for either acquisition or defense of patents.

Weakening the Filing Grace Period

Unique among world patent systems, the U.S. patent system *reserves* an inventor's "place in line" largely based on facts that arise in the ordinary course of business. Remarkably, the centerpiece of the Patent Reform Act turns that principle on its head: under Patent Reform, ordinary business activities create risks that *destroy* patent rights. Patent Reform proposes to replace our system based on ordinary course of business with a system based on forced patent paperwork and the pointless patent filings that will drain nearly $1 billion per year from small companies. The incremental patent applications of the proposed "forced-to-file" system will create *no value whatsoever* for business.

"Prior art" constitutes all information that has been made available to the public before certain deadlines measured relative to an application's filing date and the date when an inventor conceived the invention. If an invention has been described in prior art, the Patent Office may not issue a patent.

Currently, U.S. inventors enjoy a very strong one-year grace period: any printed publication, offer for sale, or public use of the invention less than one year before the patent application doesn't count as prior art, so long as the patent applicant can prove a date of invention from his own files that predates the disclosure by the third party.

Under current law, important new ideas have months or even years to gestate, to be fleshed-out, refined and tested before the patent-or-no-patent decision point. During this time, many inventions prove unworthy and the inventor never wastes the time or money on filing an application. This saves many thousands of dollars during the part of a company's lifetime when those thousands of dollars can mean life or death.

The Patent Reform Act would dramatically weaken this grace period: to overcome disclosures by third parties within the year before filing, the inventor will have to show that the third party's disclosure was derived from the inventor. However, the law gives the inventor no subpoena power to get information from the alleged deriver to make this showing. Even if that information were available, showings of "derivation" are among the most difficult and expensive showings in the patent law, so companies will go to great lengths to avoid the risk of having to show derivation. The unpredictability and expense of Patent Reform's weakened grace period means that no company will be able to rely on it, so every inventor will have to act as if there is no grace period at all.

"Forced-to-file" will have severe consequences on our nation's startups, new businesses and universities. Preparing a written description adequate to meet the requirements of the new Patent Reform grace period will cost thousands of dollars per invention for attorney fees, and many thousands of dollars in time of the company's key personnel, for 50,000 to 100,000 inventions per year. This diversion of capital and of time of key personnel, from running the business to gratuitous legal costs with only speculative business benefit, is not a recipe for a healthy startup ecosystem. Because filing on every new idea will be cost-prohibitive, companies will have to choose which inventions to patent and which to sacrifice. They will have roughly a year's less information than under current law to make those decisions. Earlier decisions will be less accurate decisions, so patent protection will be lost for valuable inventions, and costly applications will be filed for inventions that turn out to be useless. This change will almost certainly lead to

more filings of lesser quality and exacerbate the Patent Office's backlog.

Pendency (the time it takes to receive a patent) has doubled over the last 20 years, while product lifecycles have shortened. "Forced to file" will worsen one of the biggest problems in the patent system. This is not just speculation. When Canada changed to a system very similar to the bill's proposed first-inventor-to-file system in 1989, total patent applications increased by nearly 50% between 1988 and 1990.

The proponents of the change, all either currently at the nation's largest companies, or recently moved to government after a career in large companies, make a number of arguments to show that "forced-to-file" is good for small companies. With all respect for their integrity and experience within the large company environment, their arguments make clear they have no understanding of the differences between how large companies and small companies use the patent system, nor the business reality of a startup's daily struggle to stretch its initial financing to make milestones for the next investment round. In large companies, an inventor can assemble capital, R&D, manufacturing and marketing within the company, without an external disclosure that triggers patent deadlines. In contrast, small companies have to talk to outsiders: investors, potential employees and other outside experts to solve specific business problems. Current law accommodates this; Patent Reform does not.

"Forced-to-file" is an innocuous small change for large companies, but it's a gag order for small companies, making it much harder to assemble the resources the company needs. Large companies have confidentiality agreements with their employees—or at least the power to fire employees that improperly disclose. Large companies therefore face little risk of having to show derivation for unintended disclosures. In contrast, venture capitalists and other potential partners that a small company needs uniformly do not sign confidentiality agreements for initial pitch meetings. Under current law, a "handshake" understanding of confidentiality is sufficient to preserve rights, but under Patent Reform, without the audit trail of a written agreement to show derivation, these "first date" conversations become existential risks to a small company.

Because large companies use international patent systems, "forced-to-file" in the U.S. is an innocuous change; for small companies that want to establish solid businesses in the U.S. before seeking world markets, it's a huge drain of capital and expertise. Big companies generally have in-house patent attorneys embedded with the R&D team so that patent applications can be ready to go on a business schedule; for small companies, outside patent attorneys and their well-known delays will become gating roadblocks that choke many business activities and decisions. Proponents suggest that small companies can overcome the disadvantages of "forced-to-file" by publishing their best ideas on the internet as they are conceived - but don't identify instances in which their own companies have published patent-quality disclosures of their own most advanced technology plans that would give competitors a year's notice of their own business plans.

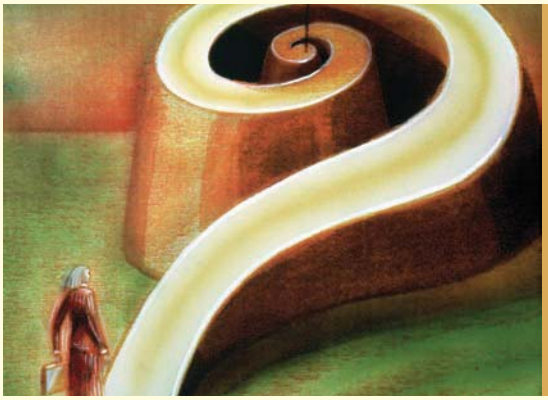
If that were not enough, the weakened grace period dramatically increases the potential profitability of corporate espionage. Given the recent revelations of China's hacking role, and given China's dramatically rising rate of U.S. patent filings, even the largest corporations should be scared of this provision becoming law.

Post-Grant Opposition

The goal of post-grant opposition—invalidating flawed patents—is a noble one. Since 1980, a person who believes a patent should not have issued has had a right to request that the Patent Office "reexamine" the patent and revoke any patent that was improperly granted. In 2002, the right of a third party to request reexamination was expanded, so that the attacker could participate in the process, rather than leaving the Patent Office and patent owner to resolve the issues themselves. S.515 and H.R.1260 propose to expand the rights of third parties to oppose a patent, the March 4, 2010 Senate Managers' Amendment proposes to expand opposers' rights by a little and H.R.1260 proposes to expand them a lot. Many VCs and small companies have expressed concerns about the indefinite uncertainty and substantial costs that an overly-expansive post-grant opposition process would create for small company patent holders and their investors. The Patent Office claims that it takes 28 months for a case to go through the re-exam process, but an outside study found a more typical average is 36 to 52 months unless there is an appeal, in which case it can take five to eight years.

Any expansion of post-grant opposition is detrimental to all venture-backed companies, because those who oppose a patent have opportunities over the entire life of the patent to bring opposition. A cottage industry has grown up around accused infringers who use reexamination simply to drag out infringement litigation and delay any liability for damages, or to weaken the patentee company so that any competitive threat from a technological insurgent is neutralized. This is sometimes called "patent assassination." The delay and uncertainty clouding a patent's validity is detrimental to small companies that need patent certainty to obtain funding. Creating lower-cost and higher-risk avenues to question the validity of patents adds another investment risk to the overall equation that venture capitalists use to make investment decisions. If the process becomes too uncertain, VCs will stop investing.

Any expanded post-grant opposition procedure should allow only a single window with a short,



The current damages system, in which the full impact of a patented feature on a product is considered, is an appropriate one.

predictable duration of no more than nine months. Rounds of venture funding are typically designed to carry a company to meaningful milestones every 18 to 36 months. As a company reaches each milestone, its prospects should become clearer, permitting it to seek a new round of funding from new investors who are less risk tolerant, but who can invest at larger amounts. The mere existence of a challenge to the validity of a key patent—whether eventually successful or not—can create enough appearance of risk to discourage the new round of investors. Meanwhile, existing investors may not have the resources to advance a company to the next stage of development. Continued access to venture funding requires that a company have quiet title to its assets, including its patents, and expanded post-grant opposition will inevitably cloud that title and impair access to capital.

Opposers should be required to identify themselves and all issues regarding patentability and all material information that supports any argument of patent invalidity. If a party elects to oppose a patent, the party should not be permitted to raise a second opposition or court challenge on these or other issues that could have been raised. The proponents of post-grant review argue that they seek "certainty." The VC community agrees and wonders why both the Senate and House bills leave venture-backed companies exposed to additional cost, time, distraction and uncertainty even after the patentee's defense of the patent has been successful.

Finally, the process has to conclude expeditiously because the company's ability to raise capital is crippled until the review proceeding concludes. The Office's record under existing law is not encouraging. Even though Congress ordered the Patent Office to conduct existing reexaminations "with special dispatch," the Patent Office took *seven years* to complete its *first* fully contested *inter partes* reexamination under the 2002 law. The Office has given conclusory statements that it can handle a new post-grant opposition system without similar delays, but has not identified process changes and personnel reallocations that will permit it to complete oppositions in a time frame commensurate with business and investment decisions, let alone how those reallocations will avoid impacting operations throughout the rest of the Office.

Apportionment of Damages

The VC community supports a compromise on the calculation of damages that was reached by the Senate Judiciary Committee in April 2009. This compromise requires a trial court judge to serve as a "gatekeeper" to keep speculative theories and calculations of damages out of court, in order to pull in outlier runaway jury cases. The current damages system, in which the full impact of a patented feature on a product is considered, is an appropriate one. For decades, courts have refined damages calculations to properly reflect the value of patented components. The system works and only needs judicial oversight to make sure it works more reliably. However, H.R. 1260 has a proposal for "apportionment of damages" which limits damages to only the patented feature. This proposal does not recognize that in a competitive environment, the sale and value of a whole product is often dependent upon the presence of a patented improvement. The apportionment concept would ask a trial court to subtract the value of the prior art and attempt to value the improvement in isolation—a logical impossibility where the improvement is a slightly different shape for a component, or a reordering of steps in a process or similar improvement that has no meaning or value outside its context. For example, how much of the iPhone's value should be ascribed to the touch-sensitive glass after the rest of the phone is removed?

Estimating value in the context of the entire device is difficult but tractable; the question in isolation is meaningless. The damage apportionment concept is particularly troubling, for example, to medical device companies whose discrete improvements to a product may shift the sale of the entire system to the inventor of that improvement. This shift occurred in the case of the addition of "motion tolerance" to pulse oximeter systems and, to some extent, when "rapid exchange" capability was added to angioplasty balloons.

Arbitrarily denying courts the ability to base computations on the entire market reality, for example, where an improvement drives market demand for an entire

product, will lead to equally arbitrary results as judges grope for the hypothetical price of a feature that is only sold as a component of a larger assembly or are otherwise barred from considering the totality of a market. Consideration of a non-exclusive license to make the determination is just as unacceptable because it effectively uses a standard of compulsory licensing as a measure for damages when a company may need to maintain exclusive control for strategic reasons. This is an area of "reform" that is best left alone.

We must also be careful not to enact reforms that would allow large companies to infringe small company's patents for a small cost. Penalties for infringement must be substantial enough to serve as a deterrent to large entities.

STRENGTHEN PATENT EXAMINATION EFFICIENCY AND QUALITY

Patent value is not measurable only by lawsuits and settlements. Along with encouraging investment in product R&D, patents improve our economy by discouraging copying and thereby preventing over-investment in undifferentiated competitors. During the internet bubble this occurred in many sectors, most memorably the optical switch market. The crash of 2000-2001 was a result of over-investment in many "me-too" technology companies. This misallocation of resources could have been prevented by limiting market entry. Patents—when examined and issued promptly—do that in an efficient and neutral way, but long pendency robs the markets of most of the patent systems' value to prevent these capital misallocations.

Improving patent quality means approving more good patents and denying more of the bad ones. It also means good patents must issue in a reasonable time, not the four, seven and ten years that we often see today. The shortest path to these twin goals is to give the Patent Office resources it needs to hire and retain more qualified examiners and to give them the time they need to make correct decisions on each patent application. The Patent Office must be allowed to keep its patent filing fees. It is commonly agreed that the Patent Office is the weak link in the U.S. patent system and that the main impetus for Patent Reform would dissolve if the Patent Office did its job well; yet the bill treats the symptoms and does nothing to treat the illness of fee diversion from patent applicant fees to the U.S. Treasury. Until this fundamental problem is fixed, most other changes are likely to make things worse instead of better.

Eric Severeid, the great CBS journalist of the mid 20th Century, noted that "Most problems begin as solutions." Patent Reform—depending on the provisions enacted—may rank up there with Sarbanes-Oxley, deregulation of Savings & Loans (the S&L crisis cost taxpayers $200B in the 1990's) and a host of other notorious wounds self-inflicted when well-intentioned legislators act without considering enough facts, or the economic incentives their proposals create. The law of unintended consequences has not been repealed.

THE BIGGER PICTURE

The innovation economy ecosystem is very delicate and is currently limping due to many self-inflicted wounds and the general economic malaise. It is not just small companies that are suffering. Many venture funds have been unable to raise new funds and are winding down. Others are investing overseas in search of better return. It is often the case that societies do not realize what their source of strength is until they lose it, and we are already on the road to doing so. The venture market has always ebbed and flowed, but there have been a number of changes in the past decade that may lead to a long-term structural decline. Patent Reform threatens to be yet another accelerator of that decline.

The main provisions of Patent Reform are uniformly adverse to small companies, and consequently to venture capital. The U.S. has the most innovative economy in the world, yet this bill threatens to materially harm it to solve "problems" that are not really problems. As I noted in the opening paragraphs of this article, the economics of new company formation and investment are orders of magnitude larger than the patent litigation concerns driving Patent Reform, and probably more sensitive, in that small changes in legal input may lead to large changes in behavior and economic output. Why has the effect on those economic segments not been fully considered and weighed?

If a company were to lobby for a change in laws that benefited that company at the expense of its larger community—for example if it wanted to pollute more—we would consider it unethical. Yet that is precisely what Patent Reform's advocates seek.

Today, the main proponents of Patent Reform are large companies: the large IT companies in the Coalition for Patent Fairness and the large pharma and large manufacturing companies in the 21st Century Coalition. From the perspective of the large IT segment in particular, the whole patent system could go away with no harm to them. Patents are certainly important to other large companies, but they would survive with a weakened patent system, on the strength of their market power, assembled resources and the like. But small company innovation and investment lives and dies by a strong patent system. Small companies are generating the overwhelming majority of new high-paying American jobs, and many large companies rely on buying small companies or licensing innovations from them to stay competitive. The major provisions of Patent Reform directly impair the innovation ecosystem and I urge Congress not to adopt the weak "forced-to-file" grace period, a post-grant review that raises existential uncertainty for small companies, or a damages provision that ensures small companies a fair return for their risky investments. ■

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What Is A Bad Patent?[1]

Critics chastise the United States Patent and Trademark Office (PTO) for issuing "bad patents", or "questionable patents" or patents of "poor quality".[3] Legions of legal scholars have alleged that the patent system is broken because there are too many bad patents, it is too hard to invalidate them, and consequently, they have advocated for aggressive patent reform.[4] But to date, there exists no definition for these patents.[5] Without an adequate definition, how can anyone expect to solve whatever problems are allegedly caused by these so-called "bad patents"?

INTRODUCTION

A coterie of critics of the patent system alleges that there are too many "bad patents," that patent quality has decreased, the patent system is broken and that these "bad patents" are harming the economy.[6] Despite the fact that research has shown that many of the critics' allegations are not accurate, mostly because the critics fail to consider all the elements of a claim,[7] the arguments advanced by the critics often find themselves cited in testimony before Congress by advocates for patent reform.[8]

This article will explore various methods of determining when a patent might be considered a "bad patent" and then will briefly discuss what appears to be the real problem. The article will reveal that there is no definition or solution to "bad patents" and that the problem is not with the patents, but with the parties asserting the patents. Solutions, therefore, should not rely on legislative or rulemaking changes of the patent system that apply to all patents and patent holders, but rather on judicial remedies to dissuade specific litigation conduct.

WHAT IS A BAD PATENT?

Many legal scholars, whose work has been cited by advocates for wholesale patent reform, refer to silly patents as representative of a "bad patent."[9] If this were an acceptable definition of a "bad patent," then there should be no problem with the patent system because

1. This article is a revised and updated version of an article by the same title published in *Pat. Trademark & Copyright Journal*, 73 *PTCJ* 525 (Mar. 2, 2007). Copyright 2007 by The Bureau of National Affairs, Inc. (800-372-1033) http://www.bna.com.
2. Patrick Doody is an Intellectual Property partner at Goodwin Procter, resident in the firm's Washington, D.C. office. He can be reached at pdoody@goodwinprocter.com. The views expressed herein are solely those of the author, and should not be attributed to the law firm or any of its clients.
3. These patents will be referred to collectively as "bad patents".
4. Patent Act of 2005: Hearings before the Subcommittee on Courts, the Internet and Intellectual Property of the House Committee on the Judiciary, 109th Cong. No. 24 (June 9, 2005); The Patent Reform Act of 2006, S.3818, 109th Cong. 2d Sess., (August 3, 2006); The Patent Reform Act of 2007, H.R. 1908, S.1145, 110th Cong. (Apr. 18, 2007); and most recently The Patent Reform Act of 2009, H.R. 1260, S. 515, 111th Cong. (Mar. 3, 2009).
5. A colleague once defined a bad patent as a patent you don't like. That may be the best definition yet.
6. Critics' writings include, for example, Jaffe, A.B., Lerner, J., "Innovation and Its Discontents, How Our Broken Patent System Is Endangering Innovation and Progress, and What To Do about It," Princeton University Press, Princeton, New Jersey (2004) (most articles critical of the patent system published since this book represent synopses of the book in one form or another, and not independent or original work); Merges, R.P., "As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform," *Berkeley Technology Law Journal*, Vol. 14, pp. 577-615 (1999); "To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy," FTC report (Oct. 2003); "A Patent System for the 21st Century," National Academy of Sciences, (2004); "U.S. Patent and Trademark Office: Transforming to Meet the Challenges of the 21st Century," National Academy of Public Administration (2005); Lemley, M., Lichtman, D., Sampat, B, "What to do About Bad Patents," *Regulation*, Vol. 28, No. 4, pp 10-13, Winter 2005-2006. The most recent assault on the patent system comes from the Council on Foreign Relations, Maskus, K., "Reforming U.S. Patent Policy: Getting the Incentives Right," November 2006.
7. *See, e.g.*, Katznelson, Ron D., "Bad Science in Search of 'Bad' Patents," *Federal Circuit Bar Journal*, Vol. 17, No. 1, pp. 1-30, August 2007. Available at http://works.bepress.com/rkatznelson/1/; Doody, P., "The Patent System is Not Broken," *Intellectual Property & Technology Law Journal*, Vol. 18, No. 12, pp 10-24 (Dec. 2006). A simple example illustrates this point. Jaffe and Lerner (*see*, n. 6, *supra*) make reference to U.S. Patent No. 6,080,436, entitled: "Bread Refreshing Method," in making the following sweeping unsupported allegation: "the granting of patents despite clear evidence of invalidity… has become all too common." *Id.*, at page 34. The authors then allege the '436 patent is invalid, without any clear evidence of invalidity, by stating: "U.S. Patent No. 6,080,436, 'Bread Refreshing Method,' which as the award states, is an 'invention concerned with the process and apparatus for refreshing bread products, particularly open face items such as sliced rolls, buns, muffins, and the like….via exposure to high heat'—what most people would call toasting. Anyone who has recently browned a slightly stale hot dog bun over a barbeque has probably infringed this award." *Id.*, at 34. The authors fail to appreciate, however, the plain language of the patent claims, especially the preamble, which recites a method of "refreshing" the bread. Toasting and browning are not "refreshing." This is hard to imagine, however, since there are only three (3) claims, and the patent is only a few pages long.
The '436 patent claims require placing the bread product in an oven having a heating element, setting the heating element to a temperature between 2500 and 4500 °F and ceasing exposure after 90 seconds. A backyard barbeque is not an "oven" and would not have a heating element at that temperature. Such simplistic, unqualified allegations of patent validity, which support the critics' ultimate conclusions regarding patent quality, seriously undermine the critics' credibility.
8. *Patent System Revision: Before the Subcomm. On Courts, the Internet, and Intellectual Property of the H. Comm. On the Judiciary*, 110th Cong. 2, 4 (2007) (statement of Daniel B. Ravicher, Executive Director, Public Patent Foundation): "all of them paint a very *clear* picture that patent quality today in America is *extremely poor*."
9. *See*, n. 6, *supra*. Jaffe, Lerner, and Lemley, refer to patents covering a wrist watch on a Teddy Bear, or a method of training a cat using a laser pointer, or the crustless peanut butter and jelly sandwich as examples of "bad patents."

these patents are not asserted.[10] In addition, the PTO has been issuing silly patents ever since it opened its doors, and there is no empirical evidence to suggest that the PTO is issuing more silly patents today than it did in years prior.[11] Silly patents present no threat to the patent system or to our economy, so silly patents should not be considered "bad patents" of the type the critics allege are harming innovation and our economy.[12]

Some have defined a "bad patent" as one that is invalid.[13] The Federal Trade Commission (FTC) report defines a "poor quality" or "questionable" patent as "one that is likely invalid or contains claims that are likely overly broad."[14] Likely invalid or overly broad to whom? Validity is a matter of opinion and a patent that is "likely invalid" to one patent attorney or judge could be and often is "likely valid" to another. While anticipation may be a factual inquiry,[15] one must first ascertain the meaning of the patent claims, which is a question of law.[16] Even anticipation is a matter of legal opinion, which obviously will vary depending on the one interpreting the claims.

The Federal Circuit itself has struggled with claim interpretation, finding one interpretation of a patent's claims in one case and a different interpretation of the very same claims in another case.[17] The same is true for patent application claims, where the claims are interpreted as broadly as possible, whereas in litigation they sometimes can be accorded a narrower interpretation.[18] Given the fact that the brightest legal minds in the country might disagree over the interpretation of a patent claim, it is no wonder that assessing validity, even in light of an alleged anticipatory prior art reference, is a matter of variable opinion.[19]

Whether an issued patent claim would have been obvious invites even greater variability in opinion. Obviousness is a question of law based upon several factual inquiries.[20] Obviousness also requires consideration of secondary indicia of non-obviousness, which may

10. With only one exception, the crustless peanut butter and jelly sandwich patent, these patents are not litigated. That patent (US Patent No. 6,004,596), as all of the critics bemoan, was asserted by J. M. Smuckers against Albie's. The case was stayed quickly after Albie's filed a request for reexamination and the patent claims were ultimately canceled during the reexamination process. Even if some time and effort were expended by Albie's, and even if the claims were not allowed during reexamination (the Board reversed the examiner's rejection on obviousness over prior art but newly added claims were rejected by the Board under 35 U.S.C. §112), Smuckers had good reason to believe its patent was not invalid and was being infringed.
11. Silly patents typically are those in which most people believe have no marketability. There are web sites devoted to silly patents, such as patentlysilly.com and a book entitled "Patently Absurd." Of course, what we consider silly today may not have been silly years ago. For example, in 1878, some may have considered U.S. Patent No. 198,748, entitled "Sled-Runner Attachment for Vehicles," a silly patent. Some may consider the butterfly-shaped comb reflected in the 1870 design patent D4,523 a silly patent. Patent critics alive at the turn of the 20th century surely would have bemoaned the issuance on May 21, 1901 of U.S. Patent No. 674,720, entitled "Wheel for Vehicles," alleging that someone patented the wheel, even though a thorough reading of the patent reveals that it covers a very specific wheel. The author's practical experience as both a patent examiner and as a practicing patent attorney has been that the most difficult patent claims to present colorable arguments of invalidity (or unpatentability) often are those that evoke a visceral reaction that there's no way something that broad could be patentable. The "feeling" that some claim may be "too broad" or "invalid" does not mean the claim is invalid. *See, e.g., In re Miller*, 441 F.2d 689 58 C.C.P.A. (1971), and MPEP 2173.04; "Breadth of a claim is not to be equated with indefiniteness." If claims are too broad, they can be rejected or invalidated as lacking description, non-enabling, or anticipated by the prior art. *Id.*
12. The patent system itself is not curbing innovation either, as set out in Doody, P., "The Patent System is Not Broken," *Intellectual Property & Technology Law Journal,* Vol. 18, No. 12, pp 10-24 (Dec. 2006).
13. Even the author fell prey to this definition in, Schreiner, S., Doody, P., "Patent Continuation Applications: How the PTO's Proposed New Rules Undermine an Important Part of the U.S. Patent System with Hundreds of Years of History," *JPTOS*, Vol. 88, No. 6, June 2006; Schreiner, S., Doody, P., "Patent Continuations—How Proposed Rule Changes Will Undermine our System and Create New Problems," ABA, *IPL Newsletter*, Vol. 24, No. 2, Spring 2006, pp. 38-48; Schreiner, S., Doody, P., "Limiting Continuation Applications to Fix the PTO Backlog Would Be Like Banning Chevrolets from the Highway to Fix Traffic Congestion," *IP Law & Business*, May 2006. Here, the author defined a bad patent as one that was asserted and found invalid during litigation.
14. "To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy," FTC report (Oct. 2003); n. 4 *supra*, at 14. *See* n. 11 *supra*. An overly broad claim must be invalidated under other grounds, not simply because it is "overly broad" or because it just seems "too broad." *In re Miller*, 441 F.2d 689, 692 58 C.C.P.A. (1971), ("breadth is not to be equated with indefiniteness, as we have said many times.").
15. *General Electric Co. v. Nintendo Co.*, 179 F.3d 1350, 1353 (Fed. Cir. 1999).
16. *Markman et al v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).
17. In *CVI/Beta Ventures Inc. v. Tura LP*, 112 F.3d 1146 (Fed. Cir. 1997), one panel of the court interpreted the expression "greater than 3% elasticity" or "at least 3% elasticity" in two patents to mean the ability of the component to return completely and spontaneously to its original shape after stress is applied and then removed, whereby the percentage refers to the amount of strain to which the component is subjected. Prior to that case, in *CVI/Beta Ventures v. Custom Optical Frames, Inc.*, 1996 U.S. App. LEXIS 14763 (Fed. Cir. 1996), unpublished, a different panel of the court affirmed the trial court's interpretation of the same claim elements in the same patents by stating that, "it is clear that 3% elasticity does not mean complete recovery," even though the accused infringer argued that 3% elasticity required complete recovery. In contrast, the Federal Circuit in *Burke, Inc. v. Bruno Independent Living Aids, Inc.*, 183 F.3d 1334 (Fed. Cir. 1999) relied on a prior nonprecedential Federal Circuit opinion that addressed construction of the claims against different accused infringers.
18. *See*, MPEP 2111. During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." The Federal Circuit recognized this in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). In *In re Morris*, 127 F.3d 1048 (Fed. Cir. 1997), the Federal Circuit held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. It does not necessarily follow, however, that the PTO can simply ignore and not be bound by the interpretation already accorded a claim by the Federal Circuit, and, in fact, most would agree that the PTO should be bound by the narrower interpretation.
19. Due to this variability, readers should give little weight, if any, to the untrained patent critics' arguments regarding the validity or "quality" of a patent.
20. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308 (Fed. Cir. 1999).

render non-obvious a patent claim that otherwise, would have been *prima facie* obvious.[21] Given this variability, alleging that a patent is a "bad patent" because it would have been obvious is even more suspect.

Some argue that "bad patents" are those that are asserted, but are invalidated. Again, validity itself is a poor indicator of whether or not a patent is a "bad patent." In fact, patents that are litigated through trial and appealed where validity is at issue typically are those in which the validity question was a very close call.[22] Surely few would consider Pfizer's Lipitor patent a "bad patent" even though the asserted claim was invalidated by the Federal Circuit on 35 U.S.C. §112, fourth paragraph grounds.[23] A patent with one claim found invalid on such questionable grounds, and which likely could be corrected by a certificate of correction, can hardly be called a "bad patent."

"Bad patents" are not silly patents, nor are they necessarily invalid patents, so perhaps some consider a "bad patent" one with claims that could be interpreted to cover more than what is disclosed in the specification.[24] However, a patent claim that can be construed to cover more than what is disclosed in the specification, or that covers an invention the inventor never thought of, would be invalid under the written description requirement of Section 112, or under 35 U.S.C. §102(f).[25]

A "bad patent" does not appear to be capable of clear definition. It therefore is illogical to attempt to solve a problem incapable of definition. If the problem does not concern "bad patents," then what is the problem?

WHAT IS THE PROBLEM?

The patent itself is not "bad" rather, it is either the party that is asserting the patent or the overzealous enforcement of the claims against third parties, either through licensing or litigation, that is bad. It would appear that this is the chord that resonates most frequently with patent practitioners when speaking of "bad patents."

Consider the following hypotheticals, and then ask yourself whether you would consider the patents "bad patents" or the result "unjust." What if NTP's patent were asserted by AT&T against Blackberry? What if MercExchange's patents were asserted by Amazon against eBay?[26] Would the public have been as enraged by the multi-million dollar settlement in the Blackberry case if the party asserting the patent was not so easy to dislike or disparage as a non-practicing patent holder?[27] Few would have argued that the patents were "bad patents" or of "poor quality" if they were asserted by large corporations. Accordingly, it is clear that the problem is not with the underlying patent.

It is not the patent itself, but the widespread enforcement, coupled with an offer to license at a nominal expense by a non-practicing patent holder, that is the alleged "problem."[28] Justice Kennedy even noted in his concurrence in the *eBay* case: "[i]n cases now arising… the nature of the patent being enforced and the economic function of the patent holder

21. Objective evidence of non-obviousness includes copying, long felt but unsolved need, failure of others, commercial success, unexpected results created by the claimed invention, unexpected properties of the claimed invention, licenses showing industry respect for the invention, and skepticism of skilled artisans before the invention. *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998).
22. An asserted patent that is clearly anticipated by the prior art likely would be reexamined or dropped from the litigation. In a similar vein, an accused infringer that cannot find sufficient prior art (or other grounds) to present at least a colorable invalidity argument likely will settle or lose on summary judgment.
23. *Pfizer Inc. v. Ranbaxy Labs., Ltd.*, 457 F.3d 1284 (Fed. Cir. 2006).
24. *See, e.g.*, Lemley, M.A., Moore, K.A., "Ending Abuse of Patent Continuations," *Boston Univ. Law Review*, Vol. 84, pp. 63-123, 76 (2004). "In the most extreme cases, patent applicants add claims during the continuation process to cover ideas they never thought of themselves, but instead learned from a competitor."
25. 35 U.S.C. §112, first paragraph; 35 U.S.C. §102(f): "A person shall be entitled to a patent unless—… (f) he did not himself invent the subject matter sought to be patented." Amended July 28, 1972, Public Law 92-358, sec. 2, 86 Stat. 501; Nov. 14, 1975, Public Law 94-131, sec. 5, 89 Stat. 691.
26. Many critics and bloggers complain that both the MercExchange and NTP patents are undergoing reexamination and were initially rejected by the patent office, although it appears that some claims have survived reexamination in both instances. But this does not mean they are bad patents. Thousands of issued patents have been reexamined, most if not all are initially rejected, and most survive reexamination.
27. The public, and unfortunately the patent bar, have fallen prey to denigrating such patent holders by referring to them using the pejorative noun "troll." This discrimination has soiled professional patent attorneys, and has made it easy to treat the non-practicing patent holder with disdain.
28. This scenario was made popular by the enforcement of a series of patents invented by Jerome Lemelson, which ultimately were found unenforceable under the doctrine of prosecution history laches. *Symbol Technologies, Inc. et al. v. Lemelson Medical Education and Research Foundation, LP, et al.,* 422 F.3d 1378 (Fed. Cir. 2005). Another popular litigant of late is Ronald S. Katz Technology Licensing LLP, who was found to have 20 of the top 106 most-litigated patents this past decade. *See* Allison, *et al.*, "Extreme Value or Trolls on Top? The Characteristics of the Most-Litigated Patents," 158 *Univ. of Penn. Law Rev.* 1, at n. 39, also available at http://ssrn.com/abstract=1407796. This same article found that non-practicing entities (licensing companies and sole inventor/start-ups) accounted for 53.4% of the most-litigated patent suits. But if the problem existed solely because of non-practicing entities, a legislative fix would be simple. Many countries have "working" requirements for patent holders, and any patent owner not working his or her patented invention is forced into compulsory license arrangements. *See, e.g.*, Pires de Carvalho, The TRIPS Regime of Patent Rights, 2nd Ed., Aspen Publishers, Inc., Maryland (2005). This could easily be implemented in the United States if the problem truly were with non-practicing entities (the author will leave for another day the incongruities that exist between working requirements and patent rights—a patent does not confer the right to make, use, or sell anything—hence, a patent holder may not be able to "work" his or her invention without infringing a different patent). Unfortunately, many non-practicing entities, such as universities, sole inventors, start-up companies, and the like, have perfectly legitimate claims and should not be discouraged or otherwise prevented from bringing such actions.

present considerations quite unlike earlier cases. An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees."[29]

The Patent Reform Act of 2006 was supported heavily by the Coalition for Patent Fairness, which asserts in its support of the legislation that it is the patent holder that is the problem, and not the patent itself.[30] Testimony before Congress regarding the Patent Reform Act of 2005 also focused on the behavior of the patent holder and not the patent itself.[31] The critics also almost universally address the alleged problem with the patent system by referring to select instances of what they perceive as overzealous enforcement of a patent.[32] Finally, much of the Congressional Testimony urging passage of the Patent Reform Act of 2009 focused on litigation misconduct and the need to reform patent litigation rules.[33]

HOW DO WE SOLVE THE PROBLEM?

Having now determined that the real culprit is not a "bad patent," but the overzealous enforcement of patents, a solution should be much easier to implement.[34] Reform measures that make it easier to invalidate patents do not solve the problem, but create more problems. Reform measures that seek to improve the "quality" of patents or improve the quality of patent judges also do not solve the problem.[35]

The most effective manner to curb overzealous enforcement of patents will require judicial intervention. One possible solution would be to provide judges with the incentive to dispose of these cases expeditiously, and to penalize improper conduct more frequently.[36] Indeed, the Federal Rules of Civil Procedure provides courts with the authority to deter repetition of misconduct.[37] Litigants and courts might consider claims for violations of the Racketeer Influenced and Corrupt Organizations Act, 18 U.S.C. §1961 et seq. (RICO) when patent holders file patent suits and seek small settlements shortly thereafter,[38] as the Illinois District Court did in *Google, Inc. v. Central Mfg. Inc*.[39]

Courts are often reluctant, however, to curb litigation by sanctioning this type of behavior.[40] As a consequence, another possible solution would be for industry representatives to pool their resources to reduce the filing of such lawsuits. The financial services industry appears to be the most frequent target of such suits.[41] Financial services industry groups could establish a defense fund to defend against such suits so that even if just one representative were sued at a time, there would be sufficient resources to adequately defend against the lawsuit and prevent further lawsuits on the same patent(s).[42]

Others more creative than the author will no doubt foresee additional solutions to the real problem of overzealous enforcement of patents. One thing should be clear—the patent system does not need to become encumbered by an even thicker coat of legislative and regulatory sludge than already exists. More focused judicial solutions to curb overzealous enforcement would appear better suited to solve the problem. ■

29. *eBay Inc. v. MercExchange, LLC* 126 S.Ct. 1837, 1842 (2006) (Kennedy, J., concurring). This quote of Justice Kennedy's concurrence reveals his misunderstanding of the rights of a patent holder, not unlike the misunderstandings of the patent critics. Patents cannot be used as a basis for producing or selling goods. They do not confer upon the patent holder the right to produce anything. Rather, patents merely confer upon the patent owner the right to exclude others from making, using, selling, offering to sell, and importing into the United States, the claimed invention. Thus, patents have never been used as a basis for producing and selling goods.
Interestingly, an entirely new industry appears to have arisen in just two months after the Federal Circuit's decision in *The Forest Group, Inc. v. Bon Tool Co*., No. 09-1044 (Fed. Cir. Dec. 28, 2009). In *Forest Group*, the Federal Circuit affirmed the District Court's ruling that, even though the patent in suit was not invalid and not infringed, the patentee was liable for "false marking" and that damages are assessed for each instance of false marking, up to $500 per instance. Two months later an organization named "Patent Compliance Group Inc." filed four lawsuits in just one week's time alleging various companies have falsely marked products. The four lawsuits were filed in the Northern District of Texas between February 12, 2010 and February 16, 2010. It would appear from the complaints that Patent Compliance Group, Inc. is an organization established to "police" patent markings on products, and when it finds violations, it files a lawsuit hoping to cash in on the decision in *Forest Group*. Since January 1, 2010, more than 150 *qui tam* lawsuits have been filed for false patent marking, establishing a new cottage industry for patent lawyers.

30. *See,* Coalition for Patent Fairness, "The Patent Reform Act of 2006, S. 3818, Enhances Innovation and Promotes Economic Growth". The entire 11 page article focuses on what it refers to as "abusive litigation" of patents. "The strategy is to go after the small guys first. They just ask a small enough sum that it doesn't pay to fight. Not that it's always nickel and dime. Some of our clients have paid six-figure settlements. But it still beats litigating." *Id*. at page 3. The article provides no evidence or even argument that there are problems with the patent that is being asserted (other than the broad-brush barb that the patent is of "poor quality" or "too broad"), but expends significant effort on explaining the alleged abusive practices in attempting to enforce a patent.

31. Testimony of Chuck Fish, Vice President & Chief Patent Counsel, Time Warner, before the U.S. House of Representatives Committee on the Judiciary Subcommittee on Intellectual Property, "Patent Trolls: Fact or Fiction?" June 15, 2006, ("rather we believe that a focus on behaviors and the consequences of those behaviors is essential.")

32. *See*, n. 6, *supra*. For example, the authors of "A Patent System for the 21st Century" National Academy of Sciences, (2004), while agreeing that the continuing high rates of innovation suggest that the patent system is working well (page 1), urged reform because patents were being more actively acquired and vigorously enforced (page 28). The FTC report noted that there were more lawsuits filed by organizations not active in the market.

33. *See, e.g.*, Congressional Testimony of the numerous individuals found at www.patentfairness.org/learn/testimony. Representative Issa introduced an amendment into the Patent Reform

Act of 2009 to initiate a patent litigation pilot program (HR 5418) that would allow judges who have more expertise in patent litigation to "opt in" the program so that they would be more likely to hear patent cases.

34. One of the primary purposes of this article is to continue a dialog on how best to solve the real problem instead of wasting time and energy on wholesale patent reform, which does not seem warranted or needed at this time.
35. These legislative reform measures often are overreaching and apply across the board, thus doing more harm than good, especially when the problem really lies with a small group of patent holders.
36. Courts can sanction frivolous lawsuits under Fed. R. Civ. P. 11(b). *See*, *e.g.*, *View Engineering, Inc. v. Robotic Vision Systems, Inc.*, 208 F.3d 981 (Fed. Cir. 2000). More recently, the W.D. of Washington awarded Rule 11 sanctions in *Eon-Net, L.P. v. Flagstar Bancorp, Inc.*, 2006 WL 2959280 (W.D. Wash., Oct. 4, 2006), but the Federal Circuit vacated and remanded because, in its view, it was improper to grant summary judgment without allowing Eon-Net opportunity to respond. *Eon-Net, L.P. v. Flagstar Bancorp, Inc*, No. 2007-1132, 2007 WL 2818634 (Fed. Cir. Sept. 27, 2007).
37. Fed. R. Civ. P. 11(c)(2), sanctions should be "sufficient to deter repetition of such conduct or comparable conduct by others similarly situated." *See also Matter of Yagman*, 796 F.2d 1165 (9th Cir. 1986).
38. This is especially true when the patentee seeks a settlement for less than what it would cost in attorneys fees just to assess the merits of the complaint, which typically can range from $25,000 to well over $200,000, depending on the complexity of the case. When a patentee files a lawsuit with multiple patents and claims at issue and soon thereafter seeks settlement for less than a few hundred thousand dollars, it is not unreasonable to infer that this behavior is a classic "shake down" of the defendant.
39. 1:07-cv-00385 (N.D. Ill); see Permanent Injunction and Final Judgment entered by the court on October 16, 2009, finding the defendants liable for violating the RICO act. In the *Google* case, the alleged trademark holder threatened Google with a lawsuit that would cost them $150,000 to defend and that they would be better off just paying him $100,000. Many of the patent cases might be distinguishable from the *Google* case, but the scenario is similar—the alleged property holder threatens the alleged trespasser with a lawsuit (or files the suit), and then requests settlement for an amount less than it would take to even assess the merits of the lawsuit.
40. For example, while the district court did sanction this type of behavior in the *Eon-Net, L.P.* case, (*see* n. 36 *supra*,) the Federal Circuit vacated and remanded because, in its view, it was improper to grant summary judgment without allowing Eon-Net opportunity to respond. *Eon-Net, L.P. v. Flagstar Bancorp, Inc*, No. 2007-1132, 2007 WL 2818634 (Fed. Cir. Sept. 27, 2007). The Federal Circuit's remand may have a chilling effect on future district courts' ability to curb this type of litigation behavior through sanctions.
41. Josh Lerner, *The Litigation of Financial Innovations 2*, Nat'l Bureau of Econ. Research, Working Paper No. 14324, 2008, (finding that financial-services patents are litigated 27 to 39 times more than ordinary patents), *cited* in Allison, *et al.*, "Extreme Value or Trolls on Top? The Characteristics of the Most-Litigated Patents," 158 *Penn Law Rev.* 1, at n. 66.
42. *See*, *e.g.*, *In re Katz Interactive Call Processing Patent Litigation*, 2:07-ml-01816, (C.D. Cal.) in which over 250 defendants teamed together and obtained summary judgment of invalidity on 46 asserted claims.

By David E. Boundy and Matthew J. Marquardt

and Its ECONOMIC EFFECTS

Patent Reform's Weakened Grace Period: Its Effects On Startups, Small Companies, University Spin-Offs And Medical Innovators

ABSTRACT

The Patent Reform Act of 2010 proposes to redefine the deadline for filing patent applications. Where today's law gives an inventor a "grace period" to test the invention, seek financing and assemble necessary strategic partners *before* bearing the cost of beginning the patent process, the Patent Reform Act changes the law so that all public disclosures (public use, offers for sale, publications and the like) would become bars to a patent, except those disclosures that the inventor can *prove* originated "directly or indirectly" with the inventor. However, proving the flow path for an idea is one of the most difficult showings in the law, and the Patent Reform Act omits any process for an inventor to obtain information to support the necessary proof. The theoretical grace period is procedurally inaccessible. The internal contradiction in the Patent Reform Act removes low-cost options for businesses, and forces them to follow higher-cost processes. The Act will force companies to file more patent applications, earlier in the development cycle. This will prohibitively increase patent and business transaction costs for small companies, university spin-offs, and startups, and place them at a substantial disadvantage to international companies and market incumbents. Data from Canada and Europe confirm our fears.

This radical and disruptive provision of the Patent Reform Act should be removed or replaced with a narrowly-tailored alternative.

INTRODUCTION

The section of the Patent Reform Act of 2010[1] titled "First Inventor to File" contains a misguided proposal to redefine the deadlines for filing a patent application. Under current law, legal determinations are organically based on an inventor's ordinary business practices, and the steps the inventor takes to get a company off the ground. Current law stays out of the way of the innovation process. In contrast, the Patent Reform Act imposes a legalistic regime where low-cost business options are foreclosed. Normal business activities raise intolerable "prior art"[2] risks of barring patent rights. By raising costs and risks during innovation phase, Patent Reform effectively repeals the grace period. This effective revocation will force all inventors, and selectively small companies, university spin-offs, startups, and individual inventors, to file more patent applications, earlier in the development cycle than they do today. This forced earlier filing will increase costs and weaken patent quality. The costs of Patent Reform's weakened grace period are many times the hoped-for savings. Moreover, impairments of investment flows and consequent economic activity are almost certain to be many hundreds of times larger than the hoped-for benefits. The most vocal proponents of the bill—patent counsel and patent office officials—urge the myopic view that business practice should be redesigned for the convenience of the patent system. This paper urges that priorities should remain the other way around, as they have been for a century.

Proponents of the change, mostly established market incumbents with international patent portfolios, argue that the bill would (a) improve harmonization with other countries' patent laws, (b) improve certainty by reducing the complexity of the facts needed to determine the validity of issued patents, and (c) reduce "self collisions" that make patenting difficult for large companies. However, as we note in footnotes to this article, the claimed savings all but vanish when analyzed carefully, and appear far overbalanced by increased business risks, legal complexities, and transition costs. Proponents' written pieces have not considered the unintended consequences and changes in behavior that Patent Reform will require, let alone balanced the costs against benefits.

1. The Patent Reform Act was introduced simultaneously in the Senate as S.515 and the House of Representatives as H.R. 1260. The "first inventor to file" provisions were identical as introduced and have since diverged slightly during the Senate amendment process.
2. "Prior art" is a patent law term meaning the publications and uses of an invention that make an invention "old" and therefore unpatentable. Current U.S. law has a "grace period," a period of time during which the inventor can publicly disclose the invention without losing patent rights. "Prior art" and the grace period are defined by the Patent Act, as discussed in section I of this paper.

Opponents, most of whom are small companies, startups, universities and their spin-offs, and independent inventors, observe that the bill creates considerable uncertainties and state of mind inquiries, and that the only way to acceptably reduce the business risks threatened by Patent Reform's weak grace period would likely cost around $1 billion per year in additional legal fees and diversion of the time of key business people. Ironically, the incremental expenditures will be almost entirely wasted on inventions that turn out to be useless (we discuss this near-perfect adverse selection in section V.C).

Opponents point out that Patent Reform's weak grace period directly impairs an inventor's ability to discuss the invention with third parties—investors, strategic partners, and the like—with disastrous consequences for small companies' abilities to turn ideas into practical realities. Because costs would rise and likelihood of long term profitability would fall, the flow of venture capital into new businesses is likely to fall—which, in turn, would impair the flow of breakthrough technologies to market. Data from countries with patent systems similar to the one proposed under Patent Reform show that these adverse effects on small companies are not merely theoretical. Moreover, these burdens would fall early in the patenting process and early in the life cycle of startup companies. Because the costs fall in the most vulnerable part of a company's life, they are likely to constrict the point of the idea-to-product pipeline that is already narrowest.

The bill has a crucial ambiguity at its heart: the bill purports to grant an inventor a reliable one year grace period only after the inventor "publicly disclosed" the invention. The term "publicly disclosed" is not defined in the bill. Under the definition that most comports with the goals of the bill's proponents, the only "public disclosure" that secures a grace period is a written document that discloses the invention at the level of technological detail required for a patent application, but not use or sale. If "publicly disclosed" has this meaning, all offers for sale, public demonstrations, field testing, commercial uses, even innocuous advertising brochures that give a customer's eye view of the product rather than an engineer's view, including those by the inventor himself, are sufficient to bar a patent, but are not sufficient to secure any grace period at all. This is a total repeal of any commercially-meaningful grace period.

The National Venture Capital Association reports that its members invested $25 billion in small businesses in 2008. Venture-backed businesses generated $3 trillion in annual economic activity, reflecting a multiplier of more than 100. These numbers are *orders of magnitude* larger than the proponents' hoped-for benefits. If Patent Reform raises costs or risks, or reduces profitability, enough to discourage even a few percent of venture capital investments or startups from being formed, then that loss will outweigh any benefit of the legislation. Experience from other countries suggests that the adverse effect of Patent Reform is likely to be far more than a few percent, and thus the bill is almost certain to be a net drag on the economy.

The change to the grace period is unnecessary. The majority of the benefits that proponents hope for would be achieved by a far simpler change to the "tie-breaker" rule between two near-simultaneous inventors. The harm Patent Reform's radical changes pose to early-stage innovation is many times greater than even the most optimistic estimate of efficiencies. And proponents' claims of cost savings become illusory on scrutiny.

> If Patent Reform raises costs or risks enough to discourage venture capital investment or startup formation by even a few percent, that loss will outweigh any benefit

I. CURRENT LAW

Since 1870, U.S. law has provided a "grace period" before the deadline for filing a patent application.[3] The grace period anchors the inventor's right on the date the invention is first conceived, and that right is only terminated a year after someone (either the inventor or another inventor) discloses the invention. These two end points give an inventor one year to communicate outside a single firm, to raise capital, to assemble strategic partners and to field test the invention. In contrast, in countries with no grace period (Japan and all European countries), if there is any use

3. Before 1870, U.S. law had no grace period. From 1870 to 1939, the grace period was two years.

or disclosure of the invention by any person (the inventor or a third party) before a patent application is filed, then the right to a patent is gone as of that day.

The grace period of current law allows a year to sort good inventions from bad before significant resources must be committed to the patent process. The grace period reduces business risk by allowing better assessment of commercial potential prior to patenting. It gives the inventor a year to find out whether anyone else invented first, and reduces the risk of wasting money on a patent application that cannot be granted. The general contours of the grace period under current law are as follows:

- If anyone (the inventor or a third party) publishes a written description of the invention or makes a public use or offer for sale of the invention more than one year before the filing date of the patent application, that disclosure is prior art that invalidates the patent.
- If any third party publishes a written description or makes a public use or files a patent application describing the invention before the patentee invented, then the patent is invalid.
- Only an original inventor can get a patent—you can't get a U.S. patent on an invention that you learned from someone else.[4]

This grace period is most frequently relied on by small companies and startups. The grace period permits companies to delay the costs of filing until an invention can be evaluated and until investment capital to exploit the invention is obtained. Once an invention establishes its worth, and a decision is made to file, the additional year of information—gained through additional development and testing of the invention, evaluation of best approaches to its use, and the like—results in an improved patent application. Consequently, the information received by the Patent Office (and the public) is more complete, reflecting the latest and best thinking, and is more focused on the most-important technology. The writing is better and clearer, making the document easier for the Patent Office to examine, and easier for the public to read and interpret.

II. THE WEAK GRACE PERIOD

The proposed Patent Reform Act would redefine the grace period, so that any disclosure of the invention (filing a patent application, public use, offer for sale, actual sale, publication, etc.) by anyone other than the inventor at *any time* before the filing date (not one year before the filing date, as under current law), would bar a patent. The bill would exempt disclosures by the inventor and by those that derived their knowledge from the inventor.[5]

Depending on the eventual definition of the ambiguous and yet undefined phrase "publicly disclosed," the effect of Patent Reform could range from a total repeal of any grace period whatsoever on any commerical use, to "only" replacement by a grace period that is so risky and problem-fraught as to be commercially useless. The weak grace period provision changes outcomes in several important situations:

1. If only the first inventor files a patent application, but a later inventor also invents and discloses the invention, uses it in public, or offers it for sale before the first inventor files,[6] then the disclosure by the second inventor bars the first inventor's patent—no one gets a patent, regardless of the merit or diligence of the original inventor. In situations where the invention cannot be commercialized without patent protection,[7] the invention falls into disuse.
2. If someone learns of the invention from an inventor and uses, sells or publishes a description of the invention before the inventor files, then the inventor loses the right to a patent, unless the inventor can establish evidence to show the link to the other person's disclosure. This is true even if the party who discloses does so purposely or maliciously.
3. The undefined term "publicly disclosed" may be determined to mean that any sale or public use other than a patent-quality written document bars the inventor from getting a patent, even if the sale or use is by the inventor himself. This shuts the patent system down for the vast majority of small companies. Even a sizeable fraction of patents for large companies would be affected: everyone, including large companies, uses the

4. 35 U.S.C. § 102(f).
5. The proposal also permits an inventor to "lock in" a date for a year by publishing the invention but very few non-academic businesses will want to give up the advantages of maintaining secrecy from the outset of a project.
6. In a typical scenario, the second inventor does not file a patent application because he/she does not intend to commercialize the invention, only to publish a paper—that lower threshold of development of the invention is typically the reason that the second inventor was first to publish.
7. This is almost always the case where the initial R&D costs are high, and can only be recouped if a patent will support cost-recovery pricing. Almost all inventions that require FDA approval fall into this category.

grace period to choose which inventions are worth spending money on, based on commercial testing. Without that testing, companies must make wasteful decisions.

4. If an inventor files early under the proposed rules, from fear of being beaten in the race to the patent office, and finds during the year following filing *that the invention doesn't work* (during the period which would have placed it within today's one-year grace period), the inventor has *wasted the significant amounts of time and money required for filing the patent application*. Current law gives the inventor a year to investigate and think, and to decide not to waste money on a pointless filing. The Patent Reform Act takes away that time, and forces applications to be filed before the invention can be fully considered and tested. This will be discussed (and quantified based on data from other countries) in more detail in Sections V.C, V.D and V.E.
5. Notably, all disclosure within a single firm or within the scope of a joint research agreement would be exempted. Of course this works just fine for large companies, but detriments small companies that, in today's economy, must rely on strategic partners for non-research expertise, an option stripped away by Patent Reform.

The change in law affects scenarios commonly faced by small companies. Consider, for example, the situation in which inventor A invents first and works to investigate or perfect the invention, seek investors, ensures that there's a viable business, or the like. In the mean time, party B does one of the following:

- B invents, but has no intent to commercialize, and chooses to disclose anyway: an academic publication, a casual conversation at a professional conference, a demonstration of a "toy" prototype that is not commercially robust, etc. Because B is not pursuing commercialization, it frequently happens that B's disclosure comes before A's, or before A files a patent application.
- B learns of the invention from A and discloses, but does not attribute A, and A cannot prove where B learned the invention at reasonable cost.

Under current law, B's disclosure does not affect A for a year, and the fact that B learned from A is irrelevant. Under Patent Reform, B's disclosure is an absolute or cost-prohibitive bar to A's patent.

Current law gives the inventor a year to investigate and think, and to decide not to waste money on a pointless filing. The Patent Reform Act takes away that time, and forces applications to be filed before the invention can be fully considered and tested.

Proponents of the bill suggest two rationales.

First, proponents say, Patent Reform would improve "objectivity" and "certainty" in determining validity of patents. Proponents note that validity of a patent under today's law often turns on who did what and when, and that researching such facts can be difficult and expensive. This argument is relevant in the narrow circumstance discussed in section III of this paper, but as proponents themselves note, that's less than one case in 10,000. Proponents' analysis only considers the issues that arise post-issuance, when facts can be researched and assembled, but neglects the changes in behavior and unintended consequences that arise before filing of applications.[8] We have not seen any analysis by the proponents of the loss of business certainty in situations where Patent Reform would force key *pre-filing* business decisions to be made on much less information, with much less time, as discussed in section V of this paper.

Proponents' second rationale is "harmonization" to bring U.S. law closer to European and Japanese

8. Proponents have not apparently considered (at least not in any public discussion) the costs that the bill will create, through its "obtained … directly or indirectly from the inventor" provision. Under Patent Reform, a party that needs to know whether a given patent is or is not valid will need to review any prior art arising in the year before filing of the application, to determine whether that disclosure *might* be a derivation from the inventor. In other words, almost every case that presents difficulties under today's "date of invention" law will present "derivation" problems under Patent Reform. Under Patent Reform, resolution is likely to be more expensive. About half of all today's date of invention issues are resolved relatively cheaply, because the information needed is in the hands of the patentee or infringer who needs to know, while under Patent Reform, the information necessary to evaluate derivation will almost always be in the hands of a third party where it can't be readily accessed, for reasons we discuss in section V.B.

law, with the hope of reducing legal costs. Experience with similar international law issues today shows that the benefits of harmonization are illusory.[9]

Proponents also observe that under the bill, a company's own "secret prior art" will not bar patentability where a company uses an invention in secret for more than a year before filing of an application, and permit a company to obtain redundant patents by allowing "self collisions," where two inventors working within a single company both invent the same thing. To the degree that these are advantages at all, they accrue overwhelmingly to market incumbents, with limited or no benefit to new market entrants.[10]

III. WHAT THE DEBATE IS NOT: FIRST TO INVENT VS. FIRST TO FILE

Unfortunately, the weakened grace period was entangled with a fairly reasonable amendment to the Patent Act, a change from first-to-invent to first-to-file. The seemingly innocuous title of this section of the bill, "First Inventor to File," has led most of the patent world to assume that Patent Reform makes only this salutary change. This unfortunate nomenclature has diverted attention from careful analysis and reading of the proposed statutory language.

If you ask any patent lawyer what the terms "first to file" or "first inventor to file" mean, you will get a consistent answer. When two inventors invent the same thing at about the same time, and each files a patent application, but neither is prior art to the other (typically each invented within a few months of each other, so each is within the other's grace period), who gets the patent? Current law looks at records to find out which of the two inventors was first to invent, which first had a "definite and permanent idea of an operative invention."[11] This is called a "first to invent" system. In contrast, in a "first to file" system, as in Europe and Japan, and as proposed in Patent Reform, the patent is awarded to the first inventor to file the patent application. Obviously this confluence of nearly-simultaneous invention and filing is a rare occurrence, affecting less than 0.01% of applications.[12] As a matter of economic behavior, the difference almost doesn't matter.

However, the term "first to file" has never implicated the grace period. Historically and in practice, the grace period serves an entirely different purpose than the rule for breaking near-ties between two near-simultaneous applicants. It is crucial to recognize the fundamental importance of preserving a robust grace period, to recognize that the two issues can be separated, and that arguments in favor of first-to-file as a tie breaker between two applications have nothing to do with the grace period for filing a single application.

A meaningful[13] change to first to file could be accomplished by

9. A partial harmonization pays almost no dividends—legal costs and uncertainty are not significantly reduced until two bodies of law are *unified*. We see this in Europe, under the European Patent Convention. The member countries agreed to a unified examination system, which—because the law of examination is *unified*—does indeed reduce costs. However, validity and infringement are still evaluated under the law of each member country. First, even though the Convention *almost* "harmonizes" the law of member countries, validity and infringement must be determined country-by-country and different countries often decide the identical issues differently. Likewise, a U.K. patent attorney cannot opine on validity or infringement of a German patent, etc. even if it is identical (except for translation). Legal opinions are not interchangeable until the laws are unified and moving "closer" generates almost no savings. Proponents do not clearly identify any point in a patent's life cycle where significant cost savings would arise from the partial harmonization of the Patent Reform Act, or how those savings would exceed the cost of disrupting well-established U.S. law.

   Second, there is no uniform law to harmonize to. U.K. German, French, Japanese, Chinese, and Canadian law are all different.

   Third, the bill does not harmonize toward the major issues that *are* more or less uniform in the rest of the world. For example, Patent Reform does nothing to harmonize U.S. rules for claim construction (the most important issue in any patent suit). Current U.S. law is harmonized with all other major systems on a technical issue of anticipation and obviousness; Patent Reform "deharmonizes" this issue.

   The House version of Patent Reform, H.R. 1260, provides that the "first inventor to file" section only comes into effect 90 days after the President finds that "major patenting authorities" have adopted a grace period. The Senate version, S.515, lacks the requirement for a *quid pro quo* harmonization by other countries. If the first-inventor-to-file provision is to have any meaningful benefit, then the Senate should restore the *quid pro quo* trigger of the House bill.
10. Under current law, a secret commercial use for more than a year is a bar to a patent, but only for the company that engaged in the secret use. Thus, a company that invents a new manufacturing machine or process, and uses it to make goods that are sold while the machine or process is held secret, is barred after a year. However, secret use by others is no bar at all. Thus, these issues arise very seldom, because inventors do not file on inventions that they know to be barred. They cost relatively little to litigate, because the discovery from the patentee party relating to this issue is almost always required for other issues as well. The Patent Reform Act permits a company to practice an invention in secret for an arbitrarily long time and still file for a patent, so long as the filing occurs before a competitor discloses that it also is making use of the invention. Obviously, anything that benefits only long-term users of an invention benefits primarily market incumbents, which in turn makes it more difficult for insurgent entrants.
11. *Sewall v. Walters*, 21 F3d 411, 415, 30 USPQ2d 1356, 1358-59 (Fed. Cir. 1994)
12. http://www.uspto.gov/inventorseye/kapposLetter.htm
13. Even here, costs will not be reduced as much as proponents suggest, because each inventor in a derivation proceeding will do what interference parties do today: each will try to prove that the other is not entitled to a patent at all (independent of and before the proceeding even begins to consider the issue of which of two valid applications wins). Those preliminary patentability issues consume well over half of the costs of an interference under today's law and this expense would not be reduced by the Patent Reform Act.

a simple and (likely) uncontroversial[14] amendment to § 102(g) of the Patent Act, leaving the remainder of § 102(a)-(f) and their definition of the grace period unperturbed. But that's not what's proposed in the Patent Reform Act of 2010.

IV. SMALL COMPANIES AND STARTUPS USE THE PATENT SYSTEM DIFFERENTLY

Small companies use the patent system somewhat differently than large companies. As we'll demonstrate in section V, most of these differences become key disadvantages to small companies under Patent Reform.

Several aspects of filing behavior are driven by startups' focus on survival. Startups are in a constant race against insolvency and they must shepherd every dollar carefully. They avoid diverting staff time to activities other than getting to first revenue shipment. For most startup companies, patents are a necessary evil (often at the insistence of the venture investors, who have a longer-term perspective); patents demand expenditures that will not translate into revenue for years, and because patents demand time from the company's most crucial personnel. Because of these constraints, small companies tend to focus their filings on a small number of "crown jewel" inventions, those inventions that are core to the viability of the company, inventions that have survived a harsh selection process. In contrast, large companies tend to file applications for inventions further down the importance hierarchy and farther afield from the company's core business.[15]

International patenting is strongly differentiated. Small U.S. companies seldom seek foreign patents. Many American startups' technologies are often uniquely directed at domestic applications or standards that are not applicable abroad. For others, a U.S. patent is often sufficient to protect the profits of a U.S. company during its startup phase. International patent applications overwhelmingly originate from large companies. Non-U.S. patents are almost always far more expensive per dollar of revenue protected, because a foreign patent requires the cooperation of at least two sets of lawyers (the U.S. instructing counsel and foreign associate counsel), translators, and substantially higher governmental fees. These major cost components drive the total average cost of acquiring a European patent to about 10 times that of U.S. patents.[16] Consequently foreign applications are usually unaffordable for a small company.[17] None of the large cost components are reduced by the Patent Reform Act.

Small companies tend to file late in the grace period year, after an invention has survived a basic level of testing and commercial vetting. Large companies are more likely to file early in the grace period year, in order to meet the requirements of national laws in Europe and Asia.

Patenting costs per invention tend to be higher for small companies than for large ones. First, as noted above, small companies' patents tend to be more complex than large companies'. Second, inventors at big companies generate detailed documents in the ordinary course of doing science and engineering, and these documents can be turned into patent applications at small cost. In contrast, at small companies, patent-quality documents are rarely generated in the ordinary course of business; the patent process usually calls for a diversion of several days of an inventor's time to generate such a document. Third, small companies typically have to rely on outside counsel instead of in-house patent counsel, and outside counsel cost far more. Startup companies often have no patenting experience and must pay for billable hours merely to be educated. Fourth, startup companies often have difficulty monitoring outside counsel and have limited bargaining leverage to limit overall costs. Finally, a small company typically has significantly more at stake in the relatively few applications it files. Between these factors, the cost of filing a patent application is generally at least twice as much for a small company as for a large company.[18]

14. Gerald J. Mossinghoff, The U.S. First-to-Invent System has Provided No Advantage to Small Entities, 84 J. Pat & TM Off. Soc'y 425 (2002) (showing that for 1983-2000, small entities would have had almost the same win-loss ratio under a first-to-file regime as they had in a first-to-invent), *updated in* Mossinghoff, Small Entities and the "First-to-Invent" patent System: an Empirical Analysis, Washington legal Foundation, http://www.wlf.org/upload/0505WPMossinghoff.pdf (2005).
15. One oft-cited example is IBM's U.S. Pat. No. 6,329,919, directed to "providing reservations for restroom use."
16. Bruno van Pottelsberghe de la Potterie and Didier Francois, "The Cost Factor in Patent Systems," *Journal of Industry, Competition and Trade*, Vol. 9, No. 4, pp. 329-355, (December, 2009) DOI: 10.1007/s10842-008-0033-2.
17. *See* Pat Choate, Global Publication of U.S. Patent Applications & Select Patent Reform Proposals, Manufacturing Policy Institute under Grant from U.S. Small Business Administration, excerpted at http://www.uspto.gov/web/offices/dcom/olia/harmonization/p_choate.pdf (Apr. 27, 2007). About half of all patent applications filed in the U.S. (the population of applications affected by the legal issues in this article), approximately 28% are from small entities and those mature into about 31% of all patents granted. Of applications first filed in the United States (as opposed to first filed elsewhere, and then filed in the U.S. as a daughter), only 36% of applications filed in the U.S. are later foreign filed. Overwhelmingly, the applications that are filed in multiple countries are owned by large entity organizations.
18. S. J. H. Graham, R.P. Merges, P. Samuelson and T.M. Sichelman, "High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey", 67 (June 30, 2009). Available at SSRN: http://ssrn.com/abstract=1429049. (A survey of U.S. startup companies revealed that the average out-of-pocket cost to acquire each company's most recent patent was over $38,000 - more than double that of the AIPLA survey of average expenditures).

For a cutting-edge innovation in a complex technology, a cost differential of three or four times is probably typical.

Small companies must discuss their inventions outside the firm, with investors, strategic partners, and the like. In contrast, large companies *internally* have all the financial, R&D, manufacturing and marketing resources that an invention needs to get to market, so they need very few external disclosures. Under both current law and Patent Reform, discussions within a firm do not raise any bars to patentability, but outside discussions generally do raise risks. This obviously gives large companies an advantage, and as we'll see, Patent Reform will exacerbate the disadvantages for small firms.

Finally, small companies and large companies use their patents quite differently. Small companies use their patents around the time the invention is first conceived (often before an application is even filed) to negotiate with friends, while large companies tend to use their patents after issue to exclude or license enemies. Small companies rely on their patents (or rights to file future patents) for credibility and negotiating leverage with investors and strategic partners. They must be able to disclose the invention in sufficient detail to get funding and commitments from partner firms, while still holding a right to exclude, so that the disclosure does not fuel a competitor.

For all these reasons, small companies rely much more heavily on the grace period than large companies. If disclosure has a high risk of turning into a forfeiture, small high-tech companies will be much more constrained in their ability to confer outside the firm and to perfect and test the invention, before bearing the cost of patent filings.

V. ADVERSE EFFECTS ARE CONCENTRATED ON SMALL BUSINESSES

Today's law is generally aligned with normal business practice: the law determines patentability based largely on acts that businesses take as a matter of ordinary course. A business needs to do very little other than file an application in order to preserve rights. Under Patent Reform, patentability determinations shift away from ordinary business activity to acts taken specifically and solely to comply with the patent laws. This change in incentives will force inventors to change their business and filing behavior and to spend time and money on activities that have no value to the business outside the patent system. To our knowledge, neither the bill's proponents, nor the Patent Office, nor Congress have acknowledged, let alone estimated, the likely adaptive responses on filing rates or the costs of those responses. Nor have they accounted for the increase in costs to the Patent Office (as discussed in section V.E)

A. Efficient Behavior By Small Companies Creates Great Risk Under The Weak Grace Period

As discussed in section II, the Patent Reform Act proposes to limit the grace period to excuse only activities attributable to the inventor, and perhaps to limit the grace period to only written publications—that is, a patent would be barred unless the inventor can trace every disclosure back to his/her own work. Anyone with experience litigating such issues will be able to confirm that as a practical matter, this can't work in the way the bill's authors intend, especially in the age of the internet.

One only has to look at the incentives and information available to the parties, and consider the behavior of similarly-situated parties under today's law to see that inventors—small or large—simply can't rely on Patent Reform's grace period. Consider these fact patterns—in each case, A is entitled to a patent under the law, but would face a practical impossibility or unreasonable cost in getting that patent, because the Patent Reform Act fails to provide a practical process for reaching the intended result:

- Inventor A needs to show that a disclosure by B originated with A. But B usually has no incentive to cooperate—if B simply stands silent, then A will be unable to get a patent and B will be able to freely use the invention. The bill neglects the incentives of the parties.
- When A wants to show that B derived his/her knowledge of the invention from A, the information needed by A is almost always in the possession of B and not readily available to A. A will have to compel B to produce documents or testify—but the Patent Reform Act does not provide applicants with subpoena power for the vast majority of situations, where B only disclosed but did not file a second application.
- Venture capitalists, most investors and most large companies that would be potential strategic partners *never* sign nondisclosure agreements covering initial pitches. Tracing the flow of information back through a chain involving such parties will be very difficult.
- A disgruntled employee or free-thinking lab staffer may publish a paper on the internet through an anonymous post. Under Patent Reform, it would be easy for such a person to poison the well in a way that makes it

impossible for the true inventor to show derivation.

B. A Law That Puts Derivation In A Central Position Is The Problem, Not The Solution

Even where there is some possibility of showing derivation, actually doing so is ***terribly*** expensive. Under current law, derivation proceedings are not common, but when they do arise, they are among the most expensive issues in patent law to decide.[19] The reason for the expense is that the information is in the wrong place. Under today's law, when a dispute turns on the date of invention, the most important information is usually in the files of the party who has the most interest in proving that date. In contrast, under Patent Reform, an inventor that needs to prove derivation needs information that is in the hands and mind of the purported deriver. Under current law, it's almost always very difficult to get that information; under Patent Reform, where the path the information took determines the legal outcome and the party with the information often has incentives not to divulge it, it will be all the more difficult.

Further, the Patent Reform Act does not provide an original inventor with subpoena power to get that information, except in the rare case where the alleged deriver also files a patent application. Patent Reform's theoretical protection against derivation will seldom be any practical protection at all.

Finally, derivation proceedings are rare under today's law, because derivation disputes are almost always more easily resolved on other grounds before one has to inquire into the deriver's mental state. If the Patent Reform Act is passed, derivation will become a substantial question in many prosecutions and most litigations, and will often be central to outcome. Today's dozen or so derivation proceedings a year will grow to several hundred or several thousand, each involving a detailed questioning of the purported deriver to retrace his entire mental journey.

C. Adaptive Responses Will Be Wasteful And Expensive

Because Patent Reform would create so many more situations that lead to loss of rights, and any attempt to recover those rights by showing derivation is so expensive, as a practical matter, inventors will have to behave almost as if the grace period were repealed entirely. If the ambiguous phrase "publicly disclosed" is resolved to mean only printed publications, then the loss of any commercially-relevant grace period is complete, not merely a matter of risks and incentives. Even if patent loss proves to be quite rare, those losses will almost certainly have a large behavioral effect—if fear of occurrence crosses a tipping point, then inventors have to change behavior to meet them. (Only about 1 home out of 100 has a fire each year, yet a very high proportion of homeowners and renters buy fire insurance.)

The risks created and rights lost by the weak grace period of the Patent Reform Act deprive inventors of time to gather information and make sound business plans; the bill requires them to act precipitously, on the information available, when better information will become available later. Small companies will be forced to file patent applications far earlier and more often, before the commercial value and technical feasibility of an invention is known, very much as if Patent Reform had no grace period at all.[20]

The alternative is to go "patent naked" into meetings with investors and strategic partners and hope that information about the invention does not leak and will not be used by the recipient to preempt the small company's patent application. Different companies will make different choices, but it is clear from European and Canadian data and experience that a great many small companies will be forced to spend money on patent filings that they do not spend today.[21]

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19. Charles L. Gholz, Would Derivation Proceedings Be The Same as Derivation Interferences?, *16 Intellectual Property Today* No. 5 at page 8, May 2009, reprinted and revised on page 39 of this issue. The issue is similar in the U.K. – in 2006, in *IDA Ltd. v. University of Southampton*, [2006] EWCA Civ. 145, http://www.bailii.org/ew/cases/EWCA/Civ/2006/145.html, the court observed "Many disputes of fact are likely to arise — who thought of what and who suggested what to whom are the sort of issues where perceptions after the event are all too likely to differ … Parties to these disputes should realise, that if fully fought, they can be protracted, very very expensive and emotionally draining. … very often development or exploitation of the invention under dispute will be stultified by the dead hand of unresolved litigation."
20. Proponents note that there is another alternative theoretically available: a company can lock in a *quasi* grace period by publishing the invention. The proponents ignore three crucial facts. First, publication-quality descriptions of inventions are written only by large companies, almost never by small companies. Generating such a document will cost about the same as a provisional patent application. Second, business secrecy is crucial—no business wants to publish a detailed description of its technology and business plans as a project begins, to invite larger competitors into the market. Third, though foreign patents are not usually a concern for small companies, publication is an absolute bar, a closing of options that is not forced under today's law. The "publication" grace period is of no commercial value.
21. *See* Letter of the Small Business Coalition on Patent Legislation to SBA Administrator Karen Mills, (December 15, 2009) at http://j.mp/SB-Coalition-Letter-to-SBA, p.3 and Slide 16 (showing that nearly 60% of applications filed under no-grace-period filing date pressures in Europe become useless to their owners and are abandoned. In contrast, only 12% of applications filed at the EPO without being subject to such pressure are abandoned prior to examination). It's indisputable that the number of applications filed in the U.S. will grow very substantially, and that new filings will be directed largely to inventions that are determined to lack value with a year's additional under the one year delay of today's law.

These filings will be almost pure waste. *Nearly every application filed* under Patent Reform's early filing deadline that would not have been filed under current law will turn out to be worthless within a year:

- If the invention had turned out to be valuable with one more year's information, the application would have been filed under today's law. In the worthwhile case, Patent Reform makes no difference.
- When the year's information gathered under current law shows that the invention is of low value, then no application is filed at all, and it is simply a waste to force a company to file an application that is highly unlikely to mature into a valuable asset. Yet that is precisely the application that Patent Reform forces to be filed.

Based on data from Europe and Canada, the weak grace period of the Patent Reform Act is likely to remarkably increase patent application filings by U.S. companies to include a large volume of premature and poor-quality applications that, with the benefit of one more year's information, would not have been filed under the current system. If European ratios of various classes of filings extrapolate to the future in the U.S., the total number of applications filed by U.S. entities could nearly double, increasing total U.S. filings (including provisional applications) by about a third.[22] This could be up to 150,000 extra patent applications per year, at an average approaching $10,000 each in attorney fees[23] and a similar cost in drain of the inventors' time. The overall effect is almost certainly well in excess of $1 billion per year, drained largely from small companies. This alone is many times the likely cost savings of any additional "certainty" or "harmonization." As we'll see, this is only the beginning of the adverse economic effect.

D. The Weak Grace Period Will Reduce Patent Quality

Applications prepared in haste will be of poorer quality. Whether U.S. applications will end up as technically incomplete and poorly written as typical European or Japanese patents is hard to predict.[24] Some effect is inevitable, however.

Because of this, many more patents will end up invalidated for failure to meet the "how to make and how to use" enablement requirement and the written description requirement. This concern was remarkably elevated on March 22, 2010, when the Federal Circuit issued its long-awaited decision in *Ariad Pharmaceuticals Inc. v. Eli Lilly and Co.*, 598 F.3d 1336 (Fed. Cir. Mar. 22, 2010), which significantly raised the standard for complete disclosure in patent applications.

Any poorly-written legal document creates significant costs and patents are no exception. It is much harder to advise a client with respect to a U.S. patent that originated in a "no grace period" jurisdiction: because the patent was written with haste and incomplete information before the invention was mature, it takes much longer to determine what the patent covers and the resultant advice to the client is much "fuzzier." If Patent Reform's weakened grace period reduces the quality of U.S. patents to the quality of a typical foreign patent, the costs of *uncertainty* will overwhelm any cost savings the proponents hope to achieve.

E. The Weak Grace Period Will Increase Loading And Backlog At The PTO

As we discussed in section V.C, the weak grace period of the Patent Reform Act is likely to increase patent application filings by roughly one third. These applications will be abandoned before they issue as patents. Because the majority of these applications will be non-provisional applications and because of the Patent Office's fee structure, the Patent Office will be forced to bear a majority of the costs of examination, but because very few patents will issue, the Office will receive only about 25% of the fees that it gets for a typical application under today's law. As a user-fee-funded agency, the Patent Office will have to raise its application fees, making patent acquisition more expensive.

For the same reasons discussed in section V.D, hurriedly-prepared patent documents will also be more difficult to examine.

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22. *See* http://j.mp/Startup-FTF-Letter (obtaining a composite estimate that the weak grace period of S. 515, will force applicants to file about 37% more applications per year including provisional applications).
23. American Intellectual Property Law Association, Report of the Economic Survey 2009. The survey gives means for applications of $13,200 for complex electrical/computer applications, $12,300 for complex biotech/chemical applications, $7,900 for simple applications and $4,900 for provisional applications. As noted in section V, small companies' applications tend to fall on the high end of the spectrum.
24. *See* Ron D. Katznelson, Patenting Strategies Under a Proposed First-To-File Patent System, statement to Federal Trade Commission's hearing on The Operation of IP Markets, (March 18, 2009), available at http://www.ftc.gov/bc/workshops/ipmarketplace/mar18/docs/katznelson.pdf. (Slide 10 shows that, on average, patent applications filed at EPO from the top 10 patenting European countries have significantly shorter disclosures compared to disclosures of U.S. applicants).

These two factors will drive the Patent Office's costs, backlog and delay even higher.

F. The Canadian Experience Shows Measurable Harm To Small Companies

In 1989, Canada changed from a system much like current U.S. law to a system much like the Patent Reform Act's weak grace period, exempting only activities "directly or indirectly" traceable to the inventor.[25] Canada's experience bears out many of the fears we express in this paper.

Any direct analysis is difficult because Canada implemented two major changes three months apart. Nonetheless, the data shows that applications filed as non-treaty Canadian applications by Canadian inventors (a close proxy to U.S. filings by U.S. companies) went up by 50% over two years.

One of the authors (Marquardt) is a U.S. lawyer now practicing patent law in Canada. During the decade in which he practiced in the U.S., he routinely advised both large and small companies. His advice to both types of clients was generally the same and consistent with the typical practice we set out above: companies should balance advantages and risks and will often find that the balance favors delayed filing. If an invention can be tested first, the company can make sure that preparing and filing a patent application is a sound use of the company's resources. The idea, of course, is to file fewer, more thoroughly considered applications, drawn to significantly more valuable inventions.

Now he must advise Canadian companies to file quickly, because the risks of waiting under Canadian law are almost always unacceptable. His Canadian clients end up relying heavily on U.S. provisional patent applications filed very early, even where the company's primary market is in Canada. This approach is far more costly than the wait-and-investigate alternative available to U.S. companies, but it's the most cost-effective approach available for Canadians.

A recent study by McGill University[26] found that the transition from first-to-invent to first-inventor-to-file had an adverse affect on small businesses in Canada. Their conclusion:

> [Our] findings lend further support to the idea that a switch to the first-to-file principle benefits large corporations and puts small businesses (and independent inventors) into a disadvantageous position.[47]
>
> [47] …[T]here is little reason to believe that the change in ownership structure of these patented inventions [from small Canadian firms to large firms] came from other factors than the Reforms. (The decrease in small business assignments came in 1990, and none of the prior literature and policy discussion suggests probable policy shifts which would lead to such a drastic change in the distribution of firm size towards large firms during the period of our investigation.)
>
> …We find that the adoption of the first-to-file rule did not induce additional R&D efforts made by Canadian inventors. Nor did such a policy change have any effects on Canada's overall inventive output whether measured as patenting at home or abroad. … The policy shift also appeared unfavorable to independent inventors and small businesses, and it channeled inventive activity towards large corporations.
>
> The fact that Canada's adoption of a first-to-file system had virtually no positive effect on its overall inventive activity but a negative impact on its domestic-oriented industries as well as independent inventors and small firms challenges the merits of the proposed 2007 U.S. Patent Reform Act. The U.S. relies even more heavily on its domestic markets than

The option to wait and see, to not file, is especially crucial in a startup's early stages, when the company is coming up with lots of inventions and must shepherd its cash especially carefully.

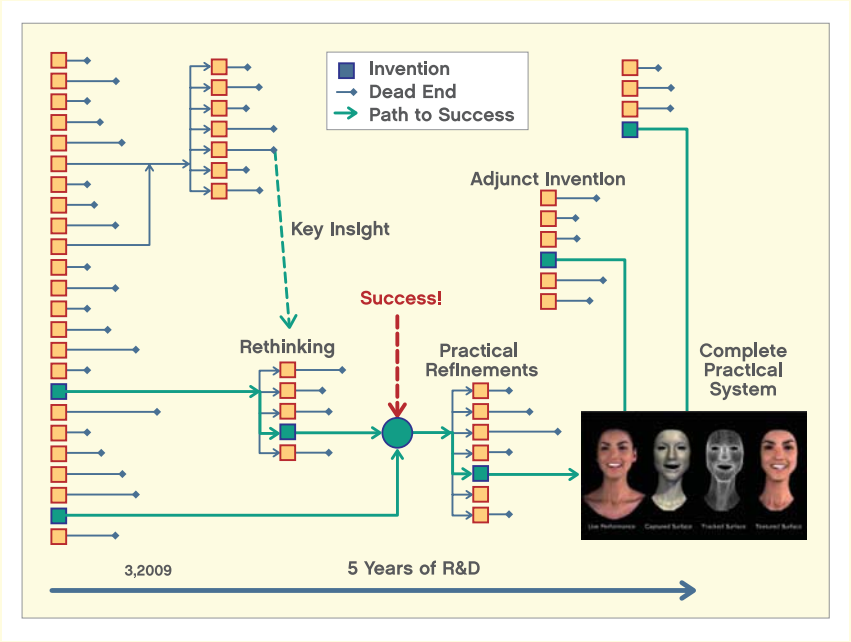
25. Canada Patents Act § 28.2, http://laws.justice.gc.ca/eng/P-4/page-8.html
26. S.T. Lo and D. Sutthiphisal, Does it Matter Who Has the Right to Patent: First-to-Invent or First-to-File? Lessons from Canada, *NBER Working Papers,* No. W14926 (April 2009), at SSRN: http://ssrn.com/abstract=1394833

Canada. In addition, as independent inventors and small firms rarely have comparable resources to compete with large corporations in the race to the Patent Office, a switch to a first to file system contradicts the very essence of the longstanding U.S. patent laws: making patent protection equally accessible to anybody. More importantly, independent inventors and small firms have played an important role in U.S. technological leadership since its independence. … It is therefore crucial to provide an unbiased legal environment for invention and innovation, which helps these independent inventors and small firms to prosper, and the first-to-invent rule apparently serves such a purpose better than its first-to-file counterpart.

G. Small Entity Case Study

The option to wait and see, to not file, is especially crucial in a startup's early stages, when the company is coming up with lots of inventions and must shepherd its cash especially carefully.

To consider one example, Mova LLC (a startup company) set out to generate truly realistic computer rendering of human faces. Mova explored dozens of initial approaches: each of the 24 blue squares at the left of the diagram[27] represents a separate invention that Mova explored as a starting point. Initially, Mova thought that approaches number 6 and 10 were most promising, so Mova pursued them, coming up with seven more refinement inventions shown in the upper left part of the diagram. After much study of approach number 6, Mova discovered that approaches number 17 and 23 were better (the green arrows in the lower left corner). After five more "rethinking" inventions, Mova found a combination that truly worked, labeled "Success!" To turn that conceptual success into a complete practical system, Mova explored more than a dozen practical refinements, adjunct inventions, and further improvements.



During this process, Mova came up with nearly 100 iterations that were pursued to some degree. Under Patent Reform, Mova would have been under immense pressure to file patent applications on many of them, especially approach number 6 and its upper left progeny, which ultimately proved to be useless. If each application would have cost $15,000 (a reasonable estimate for the mathematics-heavy software involved), filing on only the most promising ones of the 100 would have cost about $1 million. But because the strong grace period of current law gave Mova time to evaluate and target its patenting efforts, Mova only filed on six or seven, likely at a cost of about $100,000.

VI. CONCLUSION

There has been far too little consideration of small companies, startups, university inventors, independent inventors and investors, and how they use the grace period. Likewise, there has been far too little consideration of how the weak grace period will change *investment flows* into business formation, and how changes in investment flows will affect R&D spending, jobs, growth, and technological progress.

The weak grace period of the Patent Reform Act is a very large risk to the most innovative sectors of the economy, with few if any objectively-demonstrated benefits. ■

27. http://www.rearden.com/public/090924-Innov_and_IP_in_Todays_Biz-3.pdf slide 35

By Charles L. Gholz[2], Partner, Oblon, Spivak, McClelland, Maier & Neustadt LLP

Would Derivation Proceedings Be The Same As Derivation Interferences?[1]

INTRODUCTION[3]

It has been generally assumed that the "derivation proceedings" that would be created by both the House and Senate versions of the Patent Reform Act of 2009[4] would simply be derivation interferences by another name. However, a close reading of the relevant portions of those bills reveals that there would be a few significant differences—some clearly intended and some probably not intended. In this article I will comment on what I see as the important differences between the two proceedings and between the two bills. I solicit comments from readers—both comments disagreeing with my analysis and comments asserting that there are additional significant differences between the two proceedings and/or between the two bills.

IS AN APPLICANT WINNER OF A DERIVATION PROCEEDING AUTOMATICALLY ENTITLED TO OBTAIN A PATENT?

An applicant winner of a derivation interference is clearly not automatically entitled to obtain a patent. Its application is returned to the examining corps for post-interference *ex parte* prosecution and the examiner to whom it is assigned is at perfect liberty to enter one or more new grounds of rejection, starting the whole process over.[5] The theory is that the interference determined which party or parties is or are not entitled to a patent, not that either party is entitled to a patent.

However, that may not be the case when an applicant wins a derivation proceeding. The title of proposed 35 USC 135(a) in the House bill is "Dispute Over Right to Patent" and its first sentence says that "An applicant may request initiation of a derivation proceeding to determine the right of the applicant to a patent…." (Emphasis supplied.) Moreover, that subsection goes on to say that, if certain preconditions are met, "the Director shall institute a derivation proceeding for the purpose of determining which applicant [sic; this clearly should be "which party," since one party may be a patentee] is entitled to a patent" (emphasis supplied); that "in any proceeding under this subsection, the Patent Trial and Appeal Board [hereinafter referred as "the PTAB"—except in quotations from the bills]…shall determine the question of the right to patent…" (emphasis supplied); and "…shall issue a final decision on the right to patent." (Emphasis supplied.) So, if that bill passes and an applicant wins a derivation proceeding, that will apparently be the end of the matter. Since the PTAB has issued a "final decision on the right to patent" how could a mere examiner subsequently say otherwise?

> The theory is that the interference determined which party or parties is or are not entitled to a patent, not that either party is entitled to a patent.

However, the title of proposed 35 USC 135 in the Senate bill is "Derivation proceedings" and the title of proposed 35 USC 135(d) in that bill is "Effect of Final Decision." That section says that "The final decision of the Patent Trial and Appeal Board, if adverse to claims in an application for patent, shall constitute the final refusal by the Office on those claims" and that "The final decision of the Patent Trial and Appeal Board, if adverse to claims in a patent, shall, if no appeal or other review of the decision has been or can be taken or had, constitute cancellation of those claims, and notice of such cancellation shall be endorsed on copies of the patent distributed after such cancellation." Since that section says nothing about the effect of a final decision by the PTAB

1. Copyright 2010 by Charles L. Gholz. This article is a revised and updated version of an article by the same title published at 16 *Intellectual Property Today*, No. 5 at page 8 (2009). This version has been produced and is published here with the permission of the editor of that journal.
2. Partner in and head of the Interference Section of Oblon, Spivak, McClelland, Maier & Neustadt. He can be reached at (703) 412-6485, cgholz@oblon.com.
3. Thanks and a tip of the hat to Paul Morgan who suggested several of the issues discussed herein and gave me helpful comments on my first draft.
4. The House version is H. R. 1260, and the Senate version is S. 515. The quotes in this article are from the "Managers' Amendment" to S.515 submitted by Senator Leahy on March 4, 2010. It is my understanding that the original S.515 is no longer under consideration.
5. That is not to say that examiners do often enter new grounds of rejection in post-interference ex parte prosecution, what ever issue(s) was or were decided during the interference. In my experience, they do so infrequently. However, that possibility must always be borne in mind.

in favor of claims in an application for patent, apparently the present practice would remain, and such an applicant would simply be thrown back into the briar patch.

WILL THE PTAB BE REVIEWING SETTLEMENT AGREEMENTS?

Proposed 35 USC 135(b) in the House bill and proposed 35 USC 135(e) in the Senate bill are both based on present 35 USC 135(c). However, they both differ radically from the present statute.

The House bill says that "Parties to a derivation proceeding may terminate the proceeding by filing a written statement reflecting the agreement of the parties as to the correct inventors of the claimed invention in dispute [in each claim of each party?]" and that the PTAB "shall take action consistent with the agreement" (emphasis supplied) "[u]nless the Patent Trial and Appeal Board finds the agreement to be inconsistent with the evidence of record"!

The Senate bill says that "Parties to a proceeding instituted under subsection (a) [i.e., parties to a derivation proceeding] may terminate the proceeding by filing a written statement reflecting the agreement of the parties as to the correct inventors of the claimed invention in dispute [again, in each claim of each party?] and that, "Unless the Patent Trial and Appeal Board finds the agreement to be inconsistent with the evidence of record, if any, it shall take action consistent with the agreement."

Apparently the Administrative Patent Judges ("APJs") are going to have to compare the parties' settlement agreement with "the evidence of record"- at least if there is any evidence of record.

But suppose the parties agree right off the bat before any evidence has been submitted. Does this mean that the parties will have to put in evidence on the derivation/inventorship issue?

And suppose the parties agree (either honestly or dishonestly) to "split the baby"- i.e., that one party is entitled to a patent on its claims X and Y and that the other party is entitled to a patent on its claims A and B.[6] Will the parties have to persuade the (always suspicious) APJs that their decision is in accordance with the governing rules on inventorship (which a wise district court judge once termed "one of the muddiest concepts in the muddy metaphysics of the patent law.")?[7] And would the PTAB even have the authority to enter a judgment "splitting the baby"?[8]

> What about derivation proceedings where the target is a patent for which the application was never published?

IS IT GOING TO BE HARDER TO GET ACCESS TO SETTLEMENT AGREEMENTS?

There are two issues here.

First, who exactly even has the opportunity to try to obtain access to a settlement agreement? The Senate bill contains the language currently found in 35 USC 135(c) permitting access either by "Government agencies [i.e., the Antitrust Division of the Department of Justice and the FTC] on written request" or "any person on a showing of good cause." In contrast, the House bill would only permit access by "Government agencies on written request." However, practically speaking, this difference is probably insignificant—since the Patent & Trademark Office ("PTO") never, ever finds that any person has shown good cause for access.[9]

The other issue is more important. Both bills say that, "At the request of a party to the proceeding, the agreement or understanding shall be treated as business confidential information…." Presumably that relates to the Senate bill's authorization of the PTO to grant access to such settlement agreement "to any person on a showing of good cause" since the fact that the agreement is to "be treated as business confidential information" suggests what type of "good cause" might be accepted for granting access to a prying third party. However, is that also intended to be a limitation on what the "government agencies" (and, remember, those government agencies are the Antitrust Division of the Department of Justice and the FTC) can do with the settlement agreements that they review?

6. While I use that phrases "alleged deriver" and "alleged derivee" in this article, many derivation interferences involve reciprocal charges of derivation. That is, each party is both "an alleged deriver" and "an alleged derivee."
7. *Mueller Brass Co. v. Reading Industries*, 352 F.Supp. 1357, 1372, 176 USPQ 361, 372 (E.D. Pa. 1972).
8. *See* Gholz, The Board Should Have 35 USC 256 Jurisdiction, 13 *Intellectual Property Today*, No. 6 at page 10 (2006).
9. *See* Gholz, The Law and Practice Under 35 USC 135(c), 80 *JPTOS* 675 (1998), Section III.R. "What Reasons Have Been Accepted or Not Accepted as Constituting 'good cause' Within the Meaning of 35 USC 135(c) for someone Other Than a 'Government agenc[y]' to Obtain Access to a 35 USC 135(c) Agreement 'kept separate from the file of the interference' Pursuant to the Written Request of the Party That Filed the Copy?"

WHAT ABOUT DERIVATION PROCEEDINGS WHERE THE TARGET IS A PATENT FOR WHICH THE APPLICATION WAS NEVER PUBLISHED?

Proposed new 35 USC 135(a) in the House bill provides that "An applicant may request initiation of a derivation proceeding to determine the right of the [i.e., that, or the first] applicant to a patent by filing a request which sets forth with particularity the [first applicant's asserted] basis for finding that an earlier applicant derived the claimed invention from the [first] applicant…."[10] But suppose that the target is a patent that matured from an application (the second application) that was never published? Is the later applicant/alleged derivee precluded from initiating a derivation proceeding?

Presumably to cover that situation, proposed 35 USC 135(a)(3) in the House bill provides that "The Board may defer action on a request to initiate a derivation proceeding until 3 months after the date on which the Director issues a patent to the [second] applicant that filed the earlier application." Proposed 35 USC 135(c) in the Senate bill, in contrast, provides that "The Patent Trial and Appeal Board may defer action on a petition for a derivation proceeding until 3 months after the date on which the Director issues to the earlier [second] applicant a patent that includes [sic; claims?] the claimed invention that is the subject of the petition."

The only remotely comparable "window" in the present law is that the targeting applicant must have its application on file within one year of the issuance of the targeted patent or the publication of the targeted application. Moreover, this three month window is, in my humble opinion, ridiculously short. In many cases, the party that has allegedly been ripped off will not even be aware of either the issuance of the target patent until more than three months after its issuance or the publication of the target application until more than three months after its publication.

WHAT ABOUT DERIVATION PROCEEDINGS WHERE THE ALLEGED DERIVER FILED AFTER THE ALLEGED DERIVEE?

The language quoted in the previous section would permit derivation proceedings only where the alleged deriver filed his, her or their application before the alleged derivee. Presumably the thought was that, if the alleged derivee filed his, her, or their application before the alleged deriver, that application would be prior art against the alleged deriver. However, there might well be reasons why the alleged derivee would want to take advantage of the *inter partes* nature of a derivation proceeding to "take down" the alleged deriver's claims rather than relying on the hope that the application will reject the claims in that application, relying on the alleged derivee's case as prior art. That option is available in derivation interferences. Why shouldn't it be available in derivation proceedings?

CAN THE PARTIES AMEND THEIR CLAIMS DURING A DERIVATION PROCEEDING OR MOVE FOR A JUDGMENT THAT THEIR OPPONENT'S CLAIMS ARE UNPATENTABLE ON ANY GROUND OTHER THAN DERIVATION?

During a derivation interference, both parties have the option of moving for authorization to amend their claims (in order to overcome their opponent's arguments) and the option of moving for a judgment that their opponent's claims are unpatentable, not only on the basis of derivation, but on any other ground. The former can be very important to an alleged deriver that believes that he, she or they actually contributed something patentable, if not everything recited in its original claims. The latter can be very important to either party that wants to "take down" its opponent's claims, whatever happens to its own claims. Moreover, it can be very valuable to either party to have more than one arrow in its quiver, since a judgment that a claim is unpatentable is a judgment that that claim is unpatentable regardless of the basis of that judgment. Why shouldn't parties to derivation proceedings have the same options?

WILL 35 USC 146 ACTIONS CONTINUE TO BE AVAILABLE?

This is an easy one. Both bills would simply amend 35 USC 146 to make it apply to derivation proceedings rather than to interferences. Thus, the limited opportunity that 35 USC 146 offers to obtain discovery not available during the administrative phase of interferences[11] and to present live testimony (particularly in situations where the APJs declined to receive live testimony[12]) would continue to be available.

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10. The fact that the draft refers to both parties as "applicant" makes the draft as difficult to follow as present-day 35 USC 135(b)(2)!
11. Concerning the assertion that interferents have only a "limited opportunity" during 35 USC 146 proceedings to obtain discovery not available during the administrative phase of interferences, *see Cell Genesys, Inc. v. Applied Research Systems ARS Holding N.V.*, 499 F. Supp. 2d 59, 85 USPQ2d 1733 (D. Mass. 2007).
12. Contrary to popular belief, the APJs do occasionally hear live testimony. *See* USPTO BPAI, Standing Order, (Jan. 3, 2006), 157.3.4. Live Testimony.

WHAT IF THE DIRECTOR REFUSES TO DECLARE A DERIVATION PROCEEDING?

If an examiner refuses to recommend the declaration of a derivation interference, there is at least an argument that his or her decision is appealable to the Board of Patent Appeals and Interferences ("BPAI").[13] However, proposed 35 USC 135(a) in the Senate bill specifically provides that, "The determination by the Director whether to institute a derivation proceeding shall be final and nonappealable."[14] Hence, the only avenue to obtain court review of a decision refusing to declare a derivation proceeding that occurs to me is the filing of a petition for mandamus—and we all know how unlikely such a petition is to succeed.[15]

CONCLUSION

Derivation interferences are rare—hopefully because derivation is rare, but, more realistically, because of how difficult it is to persuade the BPAI that derivation has occurred.[16] Accordingly, it is likely that derivation proceedings will also be rare. However, derivation interferences can be a lot of fun (at least for the attorneys), since, as Paul Morgan (now retired, but formerly an in-house interference maven) wrote me, they are "typically the worst kind of interference to resolve, with directly opposing declaration versions of the facts, and have the worst need for better discovery than most interferences provide." ■

13. *See* Gholz, "Board of Appeals Jurisdiction Over Appeals from Decisions by Primary Examiners Refusing to Institute Interferences on Modified or Phantom Counts," 64 *JPOS* 651 (1982). A present-day "McKelvey Count" is the direct descendant of the modified and phantom counts discussed in that article.
14. Of course, no one expects Mr. Kappos or his successor to personally make such decisions. Those decisions will no doubt be delegated to the APJs—just as the similar decisions whether or not to declare an interference have been delegated to the APJs. That may make the remedy proposed in my 1982 article cited in footnote 13 unavailable. However, if a single APJ makes the initial decision not to declare a derivation proceeding, perhaps review of that decision could be sought from a panel of three APJs.
15. *See* Gholz, "Extraordinary Writ Jurisdiction of the CCPA in Patent and Trademark Cases," 58 *JPOS* 356 (1976), 69 *FRD* 119 (1976) and Gholz, "CAFC Review of Interlocutory Decisions," 67 *JPTOS* 417 (1985), 5 *Legal Notes & Viewpoints* (1985).
16. *See* Gholz, "How Hard Is It, Really, to Prove Derivation?", 10 *Intellectual Property Today* No. 12 at page 18 (2003).

By John Neis, Managing Director, Venture Investors LLC

Post-Grant Review—Our Next Nightmare? VC Perspective

Calls for patent reform have been part of the national dialogue for several years now; yet astoundingly there is no meaningful data on the potential economic impact of proposed legislative reforms. Since the start of the recession, the U.S. Government has pumped almost a trillion dollars into stimulus and recovery packages of one form or another. If job creation is Congress's top priority, shouldn't U.S. lawmakers pause to assess the economic consequences of legislation that will profoundly affect America's most reliable stimulant of job growth, namely investments in innovation?

The innovation economy of the United States is the envy of the world. Our venture capital industry accounts for more than 85% of the world's venture capital. In 2008, venture capital-backed companies employed more than 12 million people and generated nearly $3 trillion in revenue. Respectively, these figures accounted for 11% of private sector employment and represented the equivalent of 21% of U.S. GDP during that same year. Venture-backed companies outperformed the overall economy in terms of creating jobs and growing revenue and venture capital continues to grow entire new industries nearly from scratch. In recent decades, venture capital has played an instrumental role in creating high-tech, high-growth industries such as information technology, biotechnology, semiconductors, online retailing, and most recently, clean technology.

From my vantage point, nothing in the House and Senate patent legislation will stimulate investments in innovative startups and several of the proposed changes, including a much-expanded post-grant review system, will make these investments far riskier and potentially untenable for venture capitalists. One of the first questions our firm considers in deciding whether to invest in a company is whether its business plan is backed by valid, enforceable patent rights. Strong, reliable patents are what enable a nascent innovative company to create meaningful value by competing in large markets that would otherwise be inaccessible because of the existence of established companies with far greater resources. If the prognosis for validity is weak or highly unpredictable and the costs and timeline for obtaining clarity are equally uncertain and potentially significant, the risks associated with that investment skyrocket, no matter how attractive the idea. Our business is built on high risk investments, but we need predictability of the cost and timeline of obtaining undisputed patent rights to justify and manage that risk.

Other articles in this issue will examine the broader legislative package; my objective is to highlight one particular issue that has largely gone unaddressed in the current debate: the impact of the proposed post-grant review ("PGR") amendment on venture capital investment in early stage innovation. It is worth mentioning at the outset that the Senate Judiciary Committee recently announced several notable improvements to its PGR amendment, which are designed to reduce the cost and burden of defending validity challenges. Nevertheless, the House Judiciary Committee appears committed to its PGR framework, which has the backing of several big tech manufacturers. Which side will prevail is anyone's guess. However, because the House PGR amendment poses the greatest danger to early stage innovators, I will assume a worst case scenario in which the House PGR amendment becomes law.

Consider the structure of the House PGR system:

- 3 administrative tracks of post-grant review
- a negligible barrier to entry
- in 2 of the 3 tracks, a mini-trial in which the patent can be attacked on both prior art and discovery-intensive non prior art grounds
- no presumption that the patent is valid
- a much lower burden of proof than would apply to court validity challenges
- no meaningful estoppel bar against successive (or even parallel) challenges throughout the patent's life

The system is clearly designed to knock out patents; it will, as a result, knock out small innovators, often before conception. An issued patent, having survived a lengthy pre-grant examination process that already truncates the patent's useful life, will be treated as having dubious validity throughout its remaining life. The cost of defending and enforcing a patent will increase significantly and the odds of prevailing will diminish. For small entrepreneurs, who already

confront a day-to-day race against insolvency, the cost of patent ownership may well prove prohibitive and the benefits uncertain and unpredictable.

The unpredictability of patent rights will have a profound and immediate impact on access to venture capital. Nothing chills the investment process more than unpredictability. We see ample evidence of this dynamic in today's volatile economy. The entrepreneurial sector is acutely sensitive to changes that further destabilize an already high risk environment. Startups typically require several rounds of venture capital funding with each round designed to carry the company to meaningful milestones over an 18 to 36 month period. For each new round, the goal is to add additional investors to the syndicate. Investors expect a return for investing earlier, so they select milestones that they believe will make new investors willing to pay a higher price for the stock. Failure to achieve milestones usually results in flat or even lowers prices.

Given the increased likelihood of validity challenges, venture capitalists will have to reconsider the adequacy of each round and whether PGR challenges could emerge that would divert resources away from the lab bench and product development to patent defense, making the achievement of the milestones unlikely or impossible. Furthermore, even under today's system, a challenge to the validity of a key patent can scare off potential new investors, forcing a small company to rely solely on existing investors who may lack the resources to fund the next stage of development. If the system is altered to encourage multiple validity challenges throughout the patent's life, startups will have a tough time attracting an initial round of financing, let alone the many subsequent rounds needed to complete the development process. The most innovative companies with the most patent filings will face the most uncertainty about their risks and capital requirements because of the compounding effect of multiple potential challenges.

Under the existing *inter partes* review system, which is limited to patents issued in the last decade, a validity challenge can take several years to complete, making it all but impossible to enforce the patent for much of its useful life. The House bill would do nothing to address the resource constraints that have led to this administrative logjam; instead, it would exacerbate the problem by opening *inter partes* reexamination to all patents and strip away estoppel protections that have discouraged abusive and serial challenges. Given the USPTO's state of fiscal crisis, it seems inconceivable that the Office will have the resources to administer this and a new system of post-grant opposition without adding to growing pre-grant and post-grant backlogs.

Because of the excessive delays now associated with *inter partes* proceedings, the current reexamination system is widely used by defense counsel to stall or discourage infringement litigation. Once the system is stripped of any meaningful bar against successive court challenges, large competitors and infringers will have every incentive to use post-grant review as a tactical weapon to preempt the enforcement of a patent, whether in court or at the negotiating table. Even after losing at the USPTO, a large company will have a strong business case to pursue a subsequent court challenge against a small venture if doing so will jeopardize the small firm's existence or competitive capability by draining their coffers or cutting off their access to new investors. Factor in the prevalence of joint defense strategies, in which several large companies cooperate against a patent owner, and the potential threat of validity challenges multiplies exponentially. The net result is a post-grant review system that drastically diminishes the viability of young entrepreneurial companies through increased risk, cost and prolonged uncertainty.

The House PGR amendment reflects a troubling unawareness of how early stage innovation evolves into viable technologies and businesses, and the central role of a strong, reliable patent system. Contrary to the troll rhetoric, the vast majority of small innovative firms do not use patents to extort windfall payments from large manufacturers. Instead, patents allow small companies, many of which emerge from and partner with university research programs, to make effective use of inventions that otherwise would never see the light of day. For startups, a patent on a key technology gives investors a necessary degree of confidence that new discoveries can be protected, and a competitive position maintained, throughout a lengthy development process. And if the development process ultimately yields a marketable technology, the patent facilitates licensing arrangements, acquisitions and other strategic alliances that ensure a meaningful return on investment. This so-called virtuous cycle of innovation functions only if investors have confidence in the validity and predictability

PGR's reduced predictability of patent rights will have a profound and immediate impact on access to venture capital.

of patent rights. If that confidence is shaken through ill-conceived policy changes, the entire system will founder to the detriment of America's innovative economy.

Of course, mine is only one perspective among a broad cross-section of players that make up our innovation economy. The deep disagreements that have stalled passage of a patent bill are indicative that not all sectors of our economy perceive or use patents in the same way. If I were a large consumer electronics manufacturer, I would likely view the patent system quite differently. Patents would largely impact the liability column of my balance sheet, and I would perceive small patent owners as an unwelcome threat to a business model built on tight margins, the aggregation of hundreds if not thousands of component technologies, and very short product and market cycles. If I were to ask my attorney how to reduce the risk and cost of patent-driven licensing fees, settlements and damages, her answer would no doubt reflect much of what we see in the House patent bill.

However, the fact that the House bill picks sides among users of the patent system is a fatal flaw that reflects a broader failure to take seriously (or even consider) the direct and positive correlation between strong patents, private capital investments in entrepreneurial innovation, economic leadership in groundbreaking technologies, and job growth. Too much of the commentary on patent reform legislation has adopted the perspective of the big tech manufacturer, with apparent disregard for the perspective of small innovators or the potential costs of weakening U.S. patent rights. We have been treated to endless rhetoric about sky high patent litigation costs, unscrupulous patent "trolls," seemingly absurd peanut butter sandwich patents, and a "broken" patent system. However, competing views, particularly those of small innovators, have been largely ignored or marginalized.

The castigation of small, non-manufacturing patent owners as "trolls" is one of the most troubling aspects of the legislative debate. Small firm patents are, on average, more valuable than those of large manufacturers, and small firm innovation is more likely to yield revolutionary technological advances, as opposed to incremental changes to existing products. Small firms are also more dependent on patent rights to attract private capital funding, collaborate with strategic partners and secure licensing fees (or a larger acquirer) once the technology is proven and marketable. Importantly, small firms are also the principal driver of new job growth, and yet there is no hard data on the macroeconomic impact of post-grant review on innovative startups.

The idea of establishing a European style post-grant opposition system at the USPTO took root in the early part of the last decade when the new *inter partes* reexamination system was failing to attract the expected volume of challenges. Instead of giving the reexamination system a chance to gain acceptance, which it has in recent years, the USPTO, National Academy of Science and Federal Trade Commission in 2003 and 2004 led a collective call for an entirely new system that would permit a mini-trial at the USPTO. The calls became louder amid concerns that the USPTO had, during the dot-com boom, issued thousands of questionable patents that were now being asserted against big tech manufacturers. The answer, claimed advocates of patent reform, was to make it easier to knock out patents administratively. There was no credible empirical data to confirm the existence of a patent quality or litigation crisis and there never has been. Nor was there any consideration of the economic impact of a much expanded post-grant review system on the vast majority of meritorious patents that drive private investments in disruptive technologies. Instead, the calls for an inflated post-grant review system and patent reform generally were built on a shaky foundation of questionable premises that have proven specious over time. Significantly, other countries that have experimented with multiple administrative systems for challenging a patent have abandoned this approach in favor of a single track process concluding that overlapping systems lead to harassment, uncertain patent rights and government waste.

As a venture capitalist on the front line of early stage technological development, I fear that Congress is poised to do serious damage to a patent system that, albeit imperfect, does a better job of encouraging private capital investments in innovative startups than any other in the world. Although the Senate PGR amendment is far from ideal—for example, it too contemplates a 3-track system—it at least includes a number of safeguards to limit frivolous and duplicate validity challenges. The House amendment, in contrast, will drive a stake in the heart of early stage innovators and ultimately jeopardize America's ability to create new jobs. ■

By Kevin E. Noonan, PhD, Partner
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Post-Grant Review of U.S. Patents: Will Past Be Prologue?

Post-grant review of patents is a feature of several of the world's most developed patent regimes. In contrast, express review immediately after grant has not been a feature of U.S. patent law. Instead, U.S. law provides for two different types of post-grant review (*ex parte* and *inter partes* reexamination) that permit interested third parties or the patentee to have a granted patent reviewed by the Patent and Trademark Office for compliance with the patent statute, particularly under circumstances where "new" prior art is submitted that the Office had not previously considered. These different types of review have not reduced patent litigation to the extent expected and indeed have proven to be apt tools for defendants to delay incurring patent infringement liability, frequently when the patentee has limited resources that make it difficult to maintain both infringement litigation and Patent Office reexamination actions concurrently. Even the "cloud" on the validity of a patent caused by reexamination can be detrimental to activities, such as attracting venture capital, that are vital to the existence of start-up companies in areas like biotechnology.

The recently-released "Managers' Amendment"[1] of the latest patent reform bill (S.515) contains provisions for yet a third embodiment of post-grant review (PGR). This iteration resembles opposition proceedings that exist, for example, in the European Patent Office. The PGR proposed in the Senate bill contains provisions purported to be time-limited, expeditious, focused on improving patent "quality" and reducing unnecessary litigation costs. However, except for the first feature, these were all ostensible benefits of each of the earlier types of reexamination. Although the bill's PGR provisions appear to be aimed at reducing the potential for patentee harassment, the mere addition of yet another PGR protocol, especially without any limitations to existing reexamination procedures, raises the possibility of such harassment.

> Reexamination under current U.S. law has not reduced patent litigation as expected; instead reexam can be detrimental to attracting venture capital that is vital to the existence of start-up companies.

The question persists whether any of these reexamination schemes improve patent quality and reduce litigation, as their proponents contend, or instead afford a means for harassing a patentee, avoiding or delaying infringement liability or providing a means for large companies to take advantage of financial and other vulnerabilities of smaller companies, individuals or universities. This article explores these questions based on historical patterns of reexamination outcomes and by contrasting the provisions of the earlier re-examination processes with what is proposed in the Senate bill.

PAST: EXISTING FORMS OF POST-GRANT REVIEW

The first of the post-grant review provisions in the U.S. is *ex parte* reexamination.[2] This procedure, enacted in 1980[3], provides both the patentee and any third party[4] a means to initiate review of any U.S. patent at any time after grant. Reexamination is initiated by request to the Director[5] and the Director's decision whether or not to grant a reexamination cannot be appealed.[6] The request for reexamination must raise a "substantial new question of patentability"[7] based on patents or printed publications and asserting that the claims are not new or are obvious;[8] no other statutory bases

1. A "Managers' Amendment" is a revision of a pending bill, typically offered by the bill's lead sponsor or the chairman of the committee considering the bill and often offered after a bill has been reported out of committee. Even though it has not been voted on or formally adopted as an amendment to S.515, the Managers' Amendment reflects the results of negotiations intended to increase the likelihood of the bill's passage and is considered the "current" version of the bill that may be introduced onto the Senate calendar for a floor vote.
2. "*Ex parte*" means that reexamination is performed solely between the patentee and the examiner without participation of a third party adversary; "*inter partes*" means a reexamination proceeding with participation of both the patentee and an opposing party (although third party participation is limited).
3. 35 U.S.C. §§ 301-307 (2000)
4. One advantage of *ex parte* reexamination is that the requestor can remain anonymous; *Syntex Inc. v. U.S. Patent and Trademark Office*, 882 F.2d 1570, 1573 (Fed. Cir. 1989)
5. 35 U.S.C. § 302 (2000)
6. 35 U.S.C. § 303(c) (2000)
7. 35 U.S.C. § 303 (2000)
8. 35 U.S.C. § 301 (2000)

for invalidation can be raised in an *ex parte* reexamination.[9] Once granted, *ex parte* reexamination proceeds along the same lines as prosecution of a patent application. Importantly, during reexamination, the patent is not entitled to the presumption of validity that it enjoys during patent infringement litigation, and a third party requestor has no further input or involvement in the reexamination proceedings.

Ex parte reexamination generally has failed to live up to the hopes and expectations of its proponents[10] that it would become an alternative to patent litigation. The number of reexamination requests granted each year has remained at 200-300 from 1980 until very recently.[11] Prior to about 2000, reexamination was most frequently used by patentees who wanted to strengthen their patent prior to patent infringement litigation. By having art considered by the Office, the reexamination raises the burden of proof for an accused infringer to show the patent was invalid and improperly granted.[12] For patentees, a great advantage of *ex parte* reexamination was that it gave third parties no opportunity to participate in the reexamination once it had been initiated.[13] As will be discussed more fully below, it is only in the last three or four years that accused infringers have fully appreciated the opportunities of *ex parte* reexamination for aggressively pursuing invalidation of patents in parallel with patent infringement litigation.

At least partially in view of the extant shortcomings concerning third-party participation in *ex parte* reexaminations, Congress enacted an *inter partes* reexamination regime as part of the American Inventors Protection Act in 1999.[14] One major distinction between the two types of reexamination is that in an *inter partes* reexamination a third-party requestor may "comment" on any response a patentee makes.[15] There are also a number of other differences that affect the scope, and, until recently, the likelihood of *inter partes* reexamination. For example, the identity of the third party requestor must be revealed in an *inter partes* proceeding. This aspect has led some commentators to speculate that identification provides a disincentive to filing *inter partes* reexamination requests by companies afraid of being accused of patent infringement.[16] Also, the scope of "comment" available to a third party requestor is limited; for example, the Office does not permit interviews or other direct communications from third-party requestors to an examiner.[17] The most controversial aspect of *inter partes* reexaminations[18] are the estoppel provisions:[19] a third party requestor may not raise a defense of invalidity in subsequent litigation and may not institute a later *inter partes* reexamination on any grounds that were "raised or could have been raised" in a prior *inter partes* reexamination. While these provisions were intended to prevent harassment of patentees and to motivate third party requestors to "put all their cards on the table" during *inter partes* reexamination, the indeterminate scope

Increased reexamination pendency imposes uncertainties on a patentee: the scope of the claims, and the patent's effectiveness in excluding others...

9. Unlike a European opposition, there is no opportunity to raise issues regarding sufficiency of disclosure nor can the requestor challenge whether the best mode under 35 U.S.C. §112 has been disclosed. Neither is it possible to raise issues of public use, on-sale or other novelty destroying activities not supported by publications. Allegations of inequitable conduct are also not a sound basis for reexamination.
10. Comments of Rep. Robert Kastenmeier (D-WI), 126 Cong. Rec. 29,895 (1980), *cited in* Kristen J. Osenga, "Rethinking Reexamination Reform: Is It Time for Corrective Surgery, or Is It Time to Amputate?", 14 Fordham Intell. Prop. Media & Ent. L. J. 217-254 (2003).
11. Allan M. Soobert, "Breaking New Grounds in Administrative Revocation of U.S. Patents: A Proposition for Opposition—and Beyond", 14 Santa Clara Computer & High Tech L. J. 100-101 (1998), citing 1992 Comm'r of Patents and Trademarks Annual Report 30, 59.
12. For example, of 441 *ex parte* reexamination requests filed in 2004, 38% were by patent owners, 61% by 3rd parties, and 1% by the commissioner; www.uspto.gov/web/offices/com/annual/2004/060413a_table13a.html.
13. Mark Janis, "Rethinking Reexamination: Towards a Viable Administrative Revocation System for U.S. Patent Law", 11 Harv. J. L. & Tech. 1-58 (1997).
14. Pub. L. 106-113, § 4604, 113 Stat. 1501A-567 (1999), *codified at* 35 U.S.C. §§ 311-318 (2000)
15. 35 U.S.C. § 314 (2000)
16. Ashley Parker, "Problem Patents: Is Reexamination Truly a Viable Alternative to Litigation?" 3 N. Car. J. L. & Tech. 305-332 (2002). This is particularly a problem for a smaller start-up company, that may not be able to afford preemptive litigation by a larger competitor sparked by *inter partes* reexamination.
17. Rules to Implement Optional Inter Partes Reexamination Proceedings, 65 Fed. Reg. 76756, 76781 (2000), *codified at* 37 C.F.R. § 1.955, *cited in* Kristen J. Osenga, "Rethinking Reexamination Reform: Is It Time for Corrective Surgery, or Is It Time to Amputate?" 14 Fordham Intell. Prop. Media & Ent. L. J. 217, 238 (2003).
18. As enacted, a third party requestor had no right to appeal the decision outside the Board of Patent Appeals and Interferences; this prohibition was changed to confer on third party requestors the right to appeal to the Federal Circuit (35 U.S.C. § 141) or the District Court (35 U.S.C. § 145) at Pub. L. 107-273, § 13106, 116 Stat. 1901 (2002), *codified at* 35 U.S.C. § 315(b) (2000).
19. 35 U.S.C. §§ 315(c) and 317(b) (2002)

of the "could have been raised" provisions of the statute has, until recently, discouraged many third parties from requesting *inter partes* reexamination.[20]

PRESENT: USES AND ABUSES OF POST-GRANT REVIEW

Despite these limitations, both forms of reexamination have enjoyed a surge in popularity over the past several years. *Ex parte* reexamination requests have increased from 272 in 2002 to 658 in 2009.[21] The impetus of litigation in provoking reexaminations as a tactic is evidenced by the increasing percentage of patents involved in *ex parte* reexamination that are being actively litigated. This percentage was 19% in 2002 and has steadily increased to 56% in 2009.[22]

There has been a similar increase in *inter partes* reexaminations: from four filed in 2002, there are now over 700 *inter partes* requests that have been filed since the statute was enacted.[23] As with *ex parte* reexaminations, the frequency of *inter partes* reexaminations involving actively-litigated patents has increased over the past decade, from 17% in 2002 to 64% in 2009.[24]

This growth in reexamination occurred despite increased reexamination pendency: the average pendency for *ex parte* reexamination in the years 2007-2009 has increased to 56 months (4.7 years) and for *inter partes* reexamination the pendency is 43 months (3.6 years). This increasing delay has come in the face of affirmative efforts by the Patent and Trademark Office to expedite reexaminations (which are to be performed with "special dispatch") including establishing a Central Reexamination Unit (CRU) consisting of experienced examiners dedicated to reexaminations.[25] Increased reexamination pendency imposes a burden on a patentee, due to the uncertainty on the scope of the patent claims and the patent's effectiveness in excluding others from practicing the invention. It is evident that this uncertainty inures to the benefit of an accused infringer, who at a minimum benefits from any reduction in the scope of the claims efficacy of a patent-in-suit.

In addition to the uncertainties and risks for the patentee introduced into patent litigation when some or all of the patents-in-suit are put into reexamination, district courts are much more likely to grant stays in cases where an *inter partes* reexamination is concurrently pending (estimated to occur about half the time). These statistics paint a picture of litigants, most often accused infringers, using reexamination, particularly *inter partes* reexamination, as an offensive and effective litigation tactic. (Missing from the statistics, of course, are situations where the threat of *inter partes* reexamination promotes settlement.) The attractiveness of reexamination is apparent: most requests to start a reexamination are granted (upwards of 98%) particularly because of the low threshold standard requiring that the requestor assert a mere "substantial new question of patentability." This threshold became even easier to meet in 2005 when Congress expanded the scope of prior art available to request a reexamination to include art already considered by the examiner during *ex parte* prosecution.[26]

Reexamination can last for several years—for example, the Patent Office had not completed a single *inter partes* reexamination in a fully-contested proceeding in the seven year lifetime of the program as of January 2009.[27] While a patent is involved in a reexamination, litigation may be stayed (and if not, the existence of the reexamination puts a cloud on the patent). Even if not involved in litigation, the uncertainties attendant upon a patent being in reexamination significantly reduces its value for attracting investment, if only because it greatly increases the risk that an investment will not have patent protection needed to create a greater likelihood for a return on investment.

Patent Office delay and inefficiencies are thus not neutral: the very existence of the reexamination provides an infringer with ammunition that can be used against the patentee in litigation, for example in obtaining a preliminary injunction (where the reexamination at least detracts from the patentee having a reasonable likelihood of success on the merits) or proper claim construction (in view of the likelihood that at least some of

20. Kristen J. Osenga, "Rethinking Reexamination Reform: Is It Time for Corrective Surgery, or Is It Time to Amputate?", 14 Fordham Intell. Prop. Media & Ent. L.J. 217, 238 (2003).
21. Year to year there has been an almost steady increase: 44% from 2002-2003; 12.5% from 2003-2004; 19% from 2004-2005;—2.5% from 2005-2006; 26% from 2006-2007; 6% from 2007-2008; and -3% from 2008-2009. Performance and Accountability Report, Fiscal Year 2009, p. 124 and Fiscal year 2004, Tables 13b.
22. *Id*.
23. Year to year there has been a steady increase: 110% from 2004-2005; 19% from 2005-2006; 80% from 2006-2007; 33% from 2007-2008; and 53% from 2008-2009. Performance and Accountability Report, Fiscal Year 2009, p. 124 and Fiscal year 2004, Tables 13b.
24. Federal Judicial Statistics, Table C-4, U.S. District Courts—Civil Cases Terminated, by nature of Suit of Action.
25. Established July 29, 2005; www.uspto.gov/web/offices/com/speeches/05-38.htm
26. Pub. L. 107-273, § 13105, 116 Stat. 1900 (2002) *codified at* 35 U.S.C. § 303(a) (2000).
27. Matthew A. Smith, "Inter Partes Reexamination", Ed. 1E, 54. The Office had issued final decisions in only seven *inter partes* reexaminations during calendar year 2009 (H. Wegner, personal communication).

the claims will be amended during the reexamination) and of course the effects on the fact finder (judge or jury, the reexamination puts into question the patent's validity). And during this time, the patentee must finance these costs to the detriment of investing in further research and development (a consideration that disparately impacts smaller, venture-capital dependent companies).

FUTURE: A NEW FORM OF POST-GRANT REVIEW WILL REDUCE SOME PROBLEMS AND CREATE OTHERS

As has been the case since patent reform legislation was first introduced in 2005, the most recent Managers' Amendment to S.515 released by the Senate Judiciary Committee in March 2010 contains post-grant review provisions.[28] These provisions are in many respects more expansive than either *ex parte* or *inter partes* reexamination and resemble certain aspects of European opposition practice. The Managers' Amendment has been heavily modified from previous versions of the bill, seemingly in an effort to provide post-grant review sufficient to satisfy critics who want better patent "quality"[29] while purportedly protecting patentees from undue harassment.

Specifically, the post-grant review provisions of S.515 set a deadline for requesting review within nine months of patent grant.[30] As with *inter partes* reexamination, the real party in interest must be disclosed[31] and like all reexaminations, the Director's decision whether or not to institute post-grant review cannot be appealed.[32] Post-grant review will not be instituted or maintained if the real party in interest has also filed a declaratory judgment action seeking to invalidate the patent[33] or three months after the date on which a requestor is required to answer a complaint for patent infringement.[34] While these provisions may prevent "sandbagging" by accused infringers, they also create another, low-risk means for infringers to mount patent challenges. The provisions further specify that review must be completed within 12 months of commencement[35] (the Director can extend the time for review by an additional six months for good cause).[36] There are no remedies in the proposed statute if the Office does not meet this deadline, however.

> A lower standard of estoppel (greater ability of a challenger to later re-litigate related issues) exposes patentees to the risk of multiple validity challenges in different venues and under different validity standards.

The threshold for instituting post-grant review is more stringent than for either *ex parte* or *inter partes* reexamination: review will be granted only if the requestor provides information that, if unrebutted, makes it more likely than not that at least one claim in a granted patent is invalid.[37] The grounds for review are also more expansive than either of the current reexamination procedures and expressly extend beyond novelty and non-obviousness over the prior art to encompass, *for example*, questions regarding whether the patent satisfies the requirements for disclosure in the specification.[38]

While raising the standard for initiating PGR, the proposed statute would provide more limited rebuttal opportunities for patentees. The bill, as revised in the March 2010 Managers' Amendment, gives a patentee only one opportunity to propose amendments to the claims to overcome the asserted ground for invalidity[39] although additional opportunities are theoretically available if both the patentee and requestor agree; presumably, these provisions are intended for situations where the parties have agreed to settle.[40] Post-grant review proceedings are to be heard before Administrative Patent Judges (rather than examiners) in a newly-

28. S.515, Chapter 32
29. Federal Trade Commission, "To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy" (2003); National Academies of Science, "A Patent System for the 21st Century" (2004).
30. S.515, § 321(c)
31. S.515, § 322(a)(2)
32. S.515, § 324(e)
33. S.515, § 325(b)(1)
34. S.515, § 325(b)(2)
35. S.515, § 326(a)(11)
36. There are no provisions in the bill that would prevent fee diversion or otherwise ensure that the Patent and Trademark Office will be able to provide staff sufficient to meet these goals.
37. S.515, § 324(a); in addition, the Director may institute post-grant review if the petition "raises a novel or unsettled legal question that is important to other patents or patent applications." S. 515, § 324(b).
38. S.515, § 321(b)
39. S.515, § 326(d)(1); in contrast, in the EPO patentees typically propose several versions of amendments to the claims (a Main Request and multiple Auxiliary Requests) that provide strategic room to maneuver around the different grounds of invalidity identified by the third party opponent or the EPO tribunal.
40. S.515, § 326(d)(2)

constituted Patent Trial and Appeal Board,[41] applying the evidentiary standard of a preponderance of the evidence.[42] Either party may appeal the PTAB's decision to the Federal Circuit.[43]

Post-grant review also raises significant estoppels against further attacks by the same requestor (typically an accused infringer). For example, no issue that was raised or reasonably could have been raised by a requestor for post-grant review can be used as the basis for a subsequent *inter partes* reexamination.[44] However, in subsequent (or concurrent) litigation, the estoppel only extends to issues that were *actually* raised in a post-grant review.[45] This is a significant change from the current standard in *inter partes* reexaminations where the "could have been raised" estoppel applies to both subsequent reexaminations in the Patent Office and subsequent (or concurrent) litigation. This difference from prior reexamination estoppels exposes patentees to the risk of multiple validity challenges in different venues and under different validity standards. In view of the increasing frequency of *inter partes* reexaminations used during litigation, there is no evidence that protecting patentees using the "could have raised" standard in patent litigation and reexamination proceedings has had any deleterious effects on litigation strategy of accused infringers. Including a "could have raised" standard in PGR would likewise not be expected to inhibit or preclude a third party from challenging the patent after grant, but it would prevent the types of litigation gamesmanship that can seriously affect a small company's capacity to weather successive patent validity challenges.

The bill also contains provisions intended to prevent a district court from staying a patentee's motion for a preliminary injunction based on post-grant review[46] (although it is difficult to envision how Congress can interfere with the exercise of a district court's discretion to manage its own docket).

S.515 also revises *inter partes* reexamination procedures in ways consistent with its post-grant review provisions, *for example*, by restricting the time for filing an *inter partes* reexamination until *after* the nine month period for post-grant review (or after such review is terminated).[47] These revisions also extend the "reasonable likelihood" standard required for instituting post-grant review to apply as the standard for instituting an *inter partes* reexamination,[48] which may be beneficial for patentees. In addition, the bill incorporates the timing preclusions regarding litigation related *inter partes* reexaminations,[49] which can be expected to prevent the use of *inter partes* reexamination filings as a strategy during litigation, and require *inter partes* reexamination to be timely completed (i.e., within one year[50]) similar to those in the proposed post-grant review provisions. Significantly, the bill does not change the "raised or could have raised" estoppel for subsequent *inter partes* reexaminations or civil actions.[51]

WILL PAST BE PROLOGUE?

The current *ex parte* and *inter partes* reexamination regime has prompted allegations of unfairness by both patentees and patent challengers. Patentees rightly fear (and have been increasingly subject to) duplicative, concurrent patent infringement litigation and reexamination, or extended stays producing protracted delay in resolving patent infringement litigation, even as the Office takes longer and longer to determine the outcome of a reexamination, including whether a patent should emerge from reexamination in original form or amended form. Reexamination also raises the possibility that infringed claims will require amendments that reduce the extent or scope of infringement or that raise equitable issues regarding the extent of damages to which patentees are entitled. The provisions in the Managers' Amendment to S.515 do little to address the grievances of either camp. It is evident, however, that the PGR provisions in the Managers' Amendment to S.515, if enacted, would expose small companies and start-ups (traditionally the source of a great deal of innovation in the American economy) to increased risks to their intellectual property. Increasing risk to the patent portfolios of small companies and start-ups can be expected only to make it more difficult for such companies to attract investment and thus far more difficult for these companies to bring products to market. Whether this outcome is balanced by better patent "quality" or more certain patent protection will only be appreciated when, and if, a patent reform bill such as S.515 is enacted into law. ■

41. S.515, § 6
42. S.515, § 326(e)
43. S.515, § 329
44. S.515, § 325(d)(1)
45. S. 515, § 325(d)(2)
46. S.515, § 325(a)
47. S.515, § 311(c); while these provisions no doubt are intended to preclude duplicate proceedings in the Office, they have the benefit of preventing an accused infringer from initiating yet another challenge to the patent in the Office concurrent with patent infringement litigation.
48. S.515, § 314(a)
49. S.515, § 315(a)(1) and (2)
50. S.515, § 316(a)(12), having the same caveats concerning implementation mentioned above for post-grant review.
51. S.515, § 315(d)(1) and (2)

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The Gatekeeper Patent Damages Compromise of S. 515

No patent reform proposal has engendered more controversy than that relating to patent damages.[1] Indeed, patent reform failed in the last Congress due in large part to the inability of those involved to reach a suitable compromise on the patent damages issue.

Many stakeholders involved in the patent reform debate believe there is no need for legislative action on reasonable royalty patent damages, as it is not an issue on which the National Academies recommended action, nor one for which a case has been made that reform is needed. Nonetheless, these same advocates and many others now strongly support the so-called "gatekeeper" compromise reached in the Senate Judiciary Committee, not only because it constructively responds to the complaints of those who perceive there to be inconsistency and unfairness in awards of reasonable royalty patent damages, but because it finally clears the way in this Congress for patent reform of historic proportions.

Nonetheless, it remains true that no showing has been made that any reform in the substantive law of patent damages law is truly needed.[2] Contrary to critics' assertions of just a few years ago, the number of patent litigations in this country is at least leveling-off, if not declining.[3] Overall, patentees have had a success rate of only 36% over the last 13 years. When they do win, median patent verdicts have been fairly constant since 1995, even trending downward in 2008.[4] These winning verdicts, if ultimately sustained, are barely enough to cover attorneys' fees in most of these cases, much less to compensate patent owners for the infringement that has occurred.

Critics have also wrongly suggested that there are now too many large damages awards. Yet recent experience shows that of approximately 2,700 cases filed each year, fewer than five led to verdicts in excess of $100 million. Experience also shows that few of these verdicts survive post judgment review and appeal. A prime example is the *Alcatel-Lucent v. Microsoft* verdict of $1.5 billion that was touted in the last Congress as *the* reason for patent damages reform, even though it was later promptly and finally vacated. *Lucent v. Gateway,* which was similarly cited by critics in this Congress, was similarly reversed by a well reasoned decision that responds directly to many of the critics' concerns.[5]

Nor have the advocates for a substantive change in patent damages law demonstrated that these few large awards are disproportionate to the damage caused to the patent owner on account of the infringement. Many companies now market products whose yearly sales are in the hundreds of millions or even billions of dollars. When infringement damages are awarded with respect to a multi-year infringement involving such a product, it should come as no surprise that the proper damages award may be in the range of hundreds of millions of dollars. Size alone, without reference to the magnitude and duration of the infringement, and the nature of damage caused thereby, does not indicate that the damages award was in any way inappropriate.

Critics from some large technology companies nonetheless contend that damages reform is needed because their fears of erratic or spurious awards cause them to settle their cases at higher amounts than are fair. This contention is hard to vet, as settlement terms are normally private, and

1. William C. Rooklidge and Alyson G. Barker, "Reform of a Fast-Moving Target: The Development of Patent Law Since the 2004 National Academies Report" *JPTOS*, March, 2009, Vol. 91, Number 3, pages 153-199, also available at http://www.patentsmatter.com/issue/pdfs/20090205_rooklidge_barker.pdf *See also* Scott Shane, The Likely Adverse Effects of an Apportionment-Centric System of Patent Damages, http://www.mfgpatentpolicy.org/images/Apportionment_of_Damages_Adverse_Effects_Jan14_09.pdf (Jan. 14, 2009).
2. Recognizing that insufficient data exists on patent damages, Section 18 of H.R. 1260 appropriately proposes that such a study be conducted.
3. Aron Levko, Principal, Pricewaterhouse-Coopers, FTC Hearing on "The Evolving IP Marketplace—The Remedies", February 11, 2009 http://www.ftc.gov/bc/workshops/ip-marketplace/feb11/docs/alevko.pdf ; *see also* http://www.patstats.org/Patstats3.html stating "Patent suit filings returned to their normal levels in 2009, with 2,736 cases filed."
4. There is no empirical evidence to support the claim that damages awards are out-of-control. Indeed, several studies have found that damages awards are not increasing. A recent PricewaterhouseCoopers study concluded "The annual median damages award since 1995 has remained fairly consistent, when adjusted for inflation." Professor Paul Janicke from the University of Houston Law Center recently testified before the FTC that the median damages award in a patent case is $5-6 million and if the cases where the patent owner loses (which happens in 64% of cases) are included, the median drops to less than $2 million. Professor Janicke reports more of his results at www.patstats.com, including the observation that through January of 2010, "[n]o significant changes are seen in recent postings on this subject, with the median winning verdict at about $6.5M."
5. *See Lucent Technologies, Inc. et al v. Gateway, Inc. et al*, 525 F.3d 1200 (Fed. Cir. 2008) and *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009).

entered at a fraction of the damages that would be assessed were the case to proceed to judgment. At least one commentator, however, has pointed out that few of these settlements have been material to the accused infringer.[6] And more recently, at least one of the companies in the Coalition for Patent Fairness that has been critical of current damages law appears to be expanding its own licensing and enforcement efforts by participating in the formation of a patent licensing company with which it will share revenue.[7]

Most experienced litigators agree that that the level of practice in patent cases in this country is second to none. Patent issues are almost exclusively heard in the federal courts, tried by some of the best trial lawyers in the country, and appealed to Federal Circuit, which is widely recognized as the leading appellate patent court in the world. While patent cases may be brought in any federal court where venue is proper, the majority of patent cases are brought in just seven districts, where the courts have considerable experience in trying patent cases, including patent damages issues.[8] Judges in these districts are typically quite knowledgeable in Federal Circuit and Supreme Court precedent, and have often received additional training in patent issues (through the Federal Judicial Center) and/or by routinely participating in professional programs where they learn both from practitioners and their colleagues on the bench.[9]

And contrary to critics' contentions, these judges, and the juries empanelled in their cases, are not left at sea in ascertaining damages in patent cases. Rather, extensive discovery is permitted into opposing parties' damages contentions, extensive expert reports are exchanged, and both damages-related witnesses and experts are deposed at length. These judges routinely hear and decide motions to exclude improper testimony both before and during trial, and routinely exclude improper evidence. To the extent they do not, the aggrieved party may preserve its objection for appeal. Juries hear only admissible evidence and testimony, including explanations from qualified experts for both sides, as to value of the use made of the invention, and the base and rate of a fair royalty to be paid for that use. Jury instructions are proposed and negotiated by both sides, and any objections to those instructions may be preserved for appeal. Within the limits of those instructions, skilled trial lawyers for both sides are given ample time to explain their damages positions in closing argument, and the court's instructions are diligently administered. Following trial, either party may move for judgment notwithstanding the verdict or for a new trial if the verdict is against the clear weight of the evidence.

Were district courts not generally discharging their duties in the area of patent damages, one would expect that critics could point to large numbers of appeals to the Federal Circuit where aggrieved defendants complained that the foregoing procedures were not being followed or that reversible error occurred. They have not. To the contrary, the public record demonstrates that damages issues are raised in relatively few patent appeals, and then seldom with respect to any of the procedural errors that one would expect were

> While in three prior Congresses, patent damages reform had been the sticking point preventing progress on reform, this logjam was broken with the development of this gatekeeper compromise.

6. Pat Choate, "The Patent Reform Act of 2007: Responding to Legitimate Needs or Special Interests? The "Patent Fairness" Issue: An Analysis," suggesting that over the period 1995-2006, reported patent settlements for companies in the Coalition for Patent Fairness averaged one ninth of one percent (0.11 percent). http://www.innovationalliance.net/files/CPF-Patent%20Reform%20Act%20Analysis%2010-30-2007.pdf
7. http://www.law.com/jsp/iplawandbusiness/PubArticleIPLB.jsp?id=1202441889175
8. These districts are the Central District of California, Eastern District of Texas, District of Delaware, Northern District of California, District of New Jersey, Northern District of Illinois and the Southern District of New York.
9. Among the materials available to them is a paper entitled, "Compensatory Damages Issues In Patent Infringement Cases: A Handbook for Federal District Court Judges," authored by a diverse group of practitioners, corporate counsel (including this author), judges and academics brought together at the suggestion of Chief Judge Paul Michel of the Federal Circuit. *See* http://www.nationaljuryinstructions.org/damages.

the criticisms espoused rooted in actual experience. *See* www.patstats.org (compare, for example, the 374 appellate rulings on literal infringement issues to only 22 for reasonable royalties for the periods 2000-2004).

Of course, as critics of the system point out, there is still some possibility of inconsistency in the application of patent damages law. Fear of this inconsistency purportedly leads some defendants to settle for higher amounts than they would if that perception did not exist. It is this perception that led to the development of the gatekeeper compromise. This compromise assures concerned stakeholders that the best practices now being followed in most of our courts will be followed in all of our courts. In particular, the gatekeeper language ensures that courts or juries consider only those damages contentions that are cognizable at law and supported by substantial evidence.

These assurances are spelled out in the specifics of the Managers' Amendment to S. 515 which Senator Leahy recently announced for himself and Senators Sessions, Schumer, Hatch, Kyl and Kaufman. At the outset, the current compensatory patent damages provision is retained, which provides that:

> Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

Firm statutory support is thus retained that focuses the reasonable royalty inquiry on "the use made of the invention by the infringer."

The Managers' Amendment to S. 515 further includes three complementary gatekeeper provisions relating to the procedures to be used for determining damages. The first of these sets forth a general rule that ensures that the court or jury will consider only those methodologies and factors that are relevant to making the damages determination.[10] The second requires pre-trial disclosure of the methodologies and factors the parties propose for instruction to the jury, and the specification of the relevant underlying legal and factual bases for their assertions.[11] The third gatekeeper provision allows either party, or the court acting *sua sponte,* to challenge one or more damages contentions as lacking a legally sufficient evidentiary basis.[12] Upon such a challenge, the court is required to provide the nonmovant the opportunity to be heard, to proffer further evidence and to brief and argue the issue. Thereafter, the court is required to identify on the record those methodologies and factors for which there is a legally sufficient evidentiary basis, whereupon the court or jury is required to consider only such methodologies and factors in making the determination of damages.

While in three prior Congresses, patent damages reform had been the sticking point preventing progress on reform, this logjam was broken with the development of this gatekeeper compromise. Since then, the gatekeeper compromise has received nearly universal recognition as a fair way to improve the consistency and uniformity of patent damages awards, while retaining our fundamental principles and precedent that a patentee is entitled to collect no less than a reasonable royalty for the use made of his/her invention by the infringer. This compromise has led to widespread bipartisan support in the Senate Judiciary Committee and beyond, and is now one of the foundations upon which any successful patent legislation will be built.

Patent reform still has a number of hurdles to clear, however, including its passage in both houses of Congress. At this point, the Senate's approval of the gatekeeper approach appears nearly certain. The corresponding House version of patent reform, H.R. 1260, on the other hand, still contains damages language from the previous House bill, H.R. 1908 that was widely viewed as "toxic." Fortunately, the House leadership has long recognized the need to improve the damages language in this bill, and no doubt will give serious consideration to gatekeeper compromise as it moves forward in the legislative process. ■

10. '(1) IN GENERAL.—The court shall identify the methodologies and factors that are relevant to the determination of damages, and the court or jury, shall consider only those methodologies and factors relevant to making such determination.'
11. '(2) DISCLOSURE OF CLAIMS.—By no later than the entry of the final pretrial order, unless otherwise ordered by the court, the parties shall state, in writing and with particularity, the methodologies and factors the parties propose for instruction to the jury in determining damages under this section, specifying the relevant underlying legal and factual bases for their assertions.'
12. '(3) SUFFICIENCY OF EVIDENCE.—Prior to the introduction of any evidence concerning the determination of damages, upon motion of either party or sua sponte, the court shall consider whether one or more of a party's damages contentions lacks a legally sufficient evidentiary basis. After providing a nonmovant the opportunity to be heard, and after any further proffer of evidence, briefing, or argument that the court may deem appropriate, the court shall identify on the record those methodologies and factors as to which there is a legally sufficient evidentiary basis, and the court or jury shall consider only those methodologies and factors in making the determination of damages under this section. The court shall only permit the introduction of evidence relating to the determination of damages that is relevant to the methodologies and factors that the court determines may be considered in making the damages determination.'

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The Proposed Interlocutory Appeals Provision of Patent Reform[1]

Is It Dead Yet?

INTRODUCTION

The House version of the Patent Reform Act of 2009 includes a provision allowing interlocutory appeals of claim construction orders.[2] As drafted, the provision gives the authority for approval for such an appeal to the district courts, without giving the Federal Circuit discretion to decline the appeal. This approach is misguided. Failure to give the court of appeals discretion in the interlocutory appeals process flouts cautions inherent in the final judgment rule since its enactment in 1789, ignores the different institutional concerns of district and appellate courts, and will create problems of piecemeal appeals, undue delay and crowded dockets that will impair the effectiveness of the Federal Circuit and contravene the purpose for enacting the provision in the first place.

Recognizing these problems, the Senate version of the bill was amended in Committee to include various procedural limitations meant to limit ill-founded appeals.[3] However, as illuminated by the Supreme Court's recent decision in *Mohawk Industries, Inc. v. Carpenter*, the procedural limitations were largely ineffectual and invited the same problems that led Congress twenty years ago to adopt a different process as "the preferred means for determining whether and when prejudgment orders should be immediately appealable."[4] The Senate ultimately scrapped the interlocutory appeals provision entirely for its patent reform bill, released on March 4, 2010.

The perceived problem of excess reversals of claim construction rulings that has motivated the current provision is a function, if anything, of the *de novo* review standard applicable to claim construction, not the final judgment rule. In the end, we conclude that, instead of pursing a flawed solution to a false problem, the House should follow the Senate in scrapping the proposed interlocutory appeals provision and stick with the time-tested interlocutory appeals provision applicable to civil cases generally, set forth at 28 U.S.C Section 1292(b).

> Failure to give the court of appeals discretion in the interlocutory appeals process flouts cautions inherent in the final judgment rule since its enactment in 1789.

FOUNDATIONAL PRINCIPLES

The bedrock foundation of appellate practice is the final judgment rule. Enacted in the First Judiciary Act of 1789, the rule exists to "prevent the protraction of litigation to an indefinite period by reiterated applications for an exercise of the revisionary powers of the appellate tribunal."[5] As the Supreme Court recently emphasized, interlocutory appeals must "never be allowed to swallow the general rule that a party is entitled to a single appeal, to be deferred until final judgment has been entered."[6]

Exceptions to the final judgment rule traditionally have been limited almost exclusively to situations where lack of review will cause irreparable harm.[7] The

1. This article is adapted from longer articles on the same topic, published as Edward Reines and Nathan Greenblatt, Interlocutory Appeals of Claim Construction in the Patent Reform Act of 2009, 2009 Patently-O Patent L.J. 1 (2009), and Edward Reines and Nathan Greenblatt, Interlocutory Appeals of Claim Construction in the Patent Reform Act of 2009, Part II, 2010 Patently-O Patent L.J. 7 (2010). Both authors are attorneys at the Silicon Valley office of Weil, Gotshal & Manges LLP. The views expressed in this article are those of the authors and do not necessarily reflect the views of their law firm or any of its clients.
2. *See* H.R. 1260 sec. 10(b). The provision provides for "[A]n appeal from an interlocutory order or decree determining construction of claims in a civil action for patent infringement under section 271 of title 35. . . . The district court shall have discretion whether to approve the application and, if so, whether to stay proceedings in the district court during pendency of the appeal."
3. *See* S. 515 sec. 8(b).
4. *Mohawk Industries, Inc. v. Carpenter*, 130 S.Ct. 599 (2009).
5. *Waverly Mut. & Permanent Land, Loan & Bldg. Ass'n v. Buck*, 64 Md. 228, 342 (1885); Carleton M. Crick, "The Final Judgment Rule as a Basis for Appeal", 41 Yale L.J. 539, 549 (1932) (quoting 1 Stat. 72 (1789)).
6. *Mohawk*, 130 S.Ct. at 605.
7. Wright, Miller & Cooper, Federal Practice and Procedure: Jurisdiction 2d § 3920.

interlocutory appeal of claim construction orders falls outside that class, and thus it even departs from the limited exceptions to the final judgment rule that exist. The legislation also fails to heed Congress's past concern that, while in limited instances interlocutory appeals may be desirable, "the indiscriminate use of such authority may result in delay rather than expedition of cases in the district courts."[8] Based on this concern, district and appellate courts have in the past been given equal discretion in the interlocutory appeals process.[9]

INSTITUTIONAL PRESSURES

The current provision does not permit the Federal Circuit discretion to decline an appeal, while it gives district courts unfettered discretion to allow one. From a practical standpoint, this imbalance will systematically inflate the number of interlocutory appeals based on institutional pressure in the district courts. "[T]here exists what might be termed a conflict of interest between the trial and appellate courts."[10] Both courts have institutional pressure to reduce their own workload by requiring a final decision from the other court. Given speedy trial requirements in criminal cases, published lists of motions pending longer than six months, the complexity of patent cases and other factors, district courts will feel acute pressure to certify cases for interlocutory appeal.

Estimates by Chief Judge Michel of the Federal Circuit of the likely number of interlocutory appeals are disheartening. Citing a study by Professor Jay Kesan, Chief Judge Michel estimates a doubling of the Federal Circuit's overall patent caseload from 500 to 1,000 cases per year and a doubling of time for appeal from 11 to 22 months.[11] Such delay is not only "intolerable from the standpoint of corporate litigants," but may impair the Federal Circuit's ability to focus its resources on controlling legal issues of great significance.[12]

> Simply stating that claim constructions must be "final" glosses over the doctrinal conflict with the rolling claim construction doctrine and perpetuates a troublesome imprecision that led Congress to reform this area of law twenty years ago.

INEFFECTUAL LIMITATIONS

Recognizing that it is unwise to allow district courts to approve interlocutory appeals unilaterally, the Senate amended its version of the same provision to place some constraint on a district court's interlocutory appeal determination before scrapping the provision entirely. To be eligible, the district court would have to find that: (1) the claim construction order is "final," (2) it is based on a "sufficient evidentiary record" for appeal, and (3) interlocutory treatment of the order "(A) may materially advance the ultimate termination of the litigation, or (B) will likely control the outcome of the case." The Court of Appeals would only be allowed to refuse an appeal if it determines that the district court's findings were "clearly erroneous." These limitations, however, would fail to ameliorate the practical problems caused by excessive and ill-founded interlocutory appeals and will create new concerns.

First, the requirement that a claim construction be labeled "final" before it can be designated by the district court for interlocutory appeal is quixotic. Claim constructions typically evolve when the court learns of something of which it was unaware when it issued its ruling and which it did not even know it should learn when it issued its order.[13] As a practical matter, unforeseen changes to claim construction orders are not rare.[14] Compounding the intractable problem that a district judge cannot generally predict beforehand when an issued claim construction ruling will warrant a modification, is that there is no existing body of law that distinguishes between

8. S.Rep. No. 85-2434, (1958), reprinted in 1958 U.S.C.C.A.N. 5255.
9. *See, e.g.*, 28 U.S.C. § 1292(b); Fed. R. Civ. P. 23(f).
10. Crick, The Final Judgment as a Basis for Appeal, *supra* note 5 at 561.
11. Letter from Hon. Chief Judge Paul Michel to Hon. Patrick Leahy and Hon. Arlen Specter, June 13, 2007, at 2 (citing a study by Professor Jay Kesan, of the University of Illinois Law School).
12. *Id.*
13. *See Jang v. Boston Scientific Corp.*, 532 F.3d 1330, 1337 (Fed. Cir. 2008).
14. *See, e.g., Jack Guttman, Inc. v. KopyKake Enters., Inc.*, 302 F.3d 1352, 1361 (Fed. Cir. 2002); *see also* William F. Lee and Anita K. Krug, "Still Adjusting to *Markman*: A Prescription for the Timing of Claim Construction Hearings", 13 Harv. J. L. & Tech. 55, 80-81 (1999).

a so-called "final" and "non-final" claim construction that can be used reliably as a resource. The concept of a "final" order in the collateral order doctrine provides the closest analog. Under that doctrine, orders are deemed non-final "so long as there is a plain prospect that the trial court itself may alter the challenged ruling."[15] But nearly all claim constructions satisfy those criteria because altered claim constructions are not rare. Simply stating that claim constructions must be "final" glosses over the doctrinal conflict with the rolling claim construction doctrine and perpetuates a troublesome imprecision that led Congress to reform this area of law twenty years ago.[16] The recent Supreme Court case *Mohawk Industries, Inc. v. Carpenter* has brought these issues to the fore.[17]

Second, the requirement that the interlocutory appeal of a claim construction "may materially advance the ultimate termination of the litigation, [or] will likely control the outcome of the case" does not appear to impose any meaningful limits on interlocutory appeals. Under the settled interpretation of that language in the current interlocutory appeals statute, 28 U.S.C. § 1292(b), an appeal need only "involve the possibility of avoiding trial proceedings, or at least curtailing and simplifying pretrial or trial" to qualify.[18] Because most claim construction proceedings involve disputed terms that may affect the outcome of the case,[19] all claim construction orders may be argued in some sense to meet the "may materially advance" limitation. This requirement would also spur wasteful satellite disputes as to whether a particular claim construction will materially advance the litigation at both the district court and appellate level. These disputes would require consideration of the merits and could implicate a broad spectrum of issues involving infringement, invalidity and potentially even ownership and damages.[20]

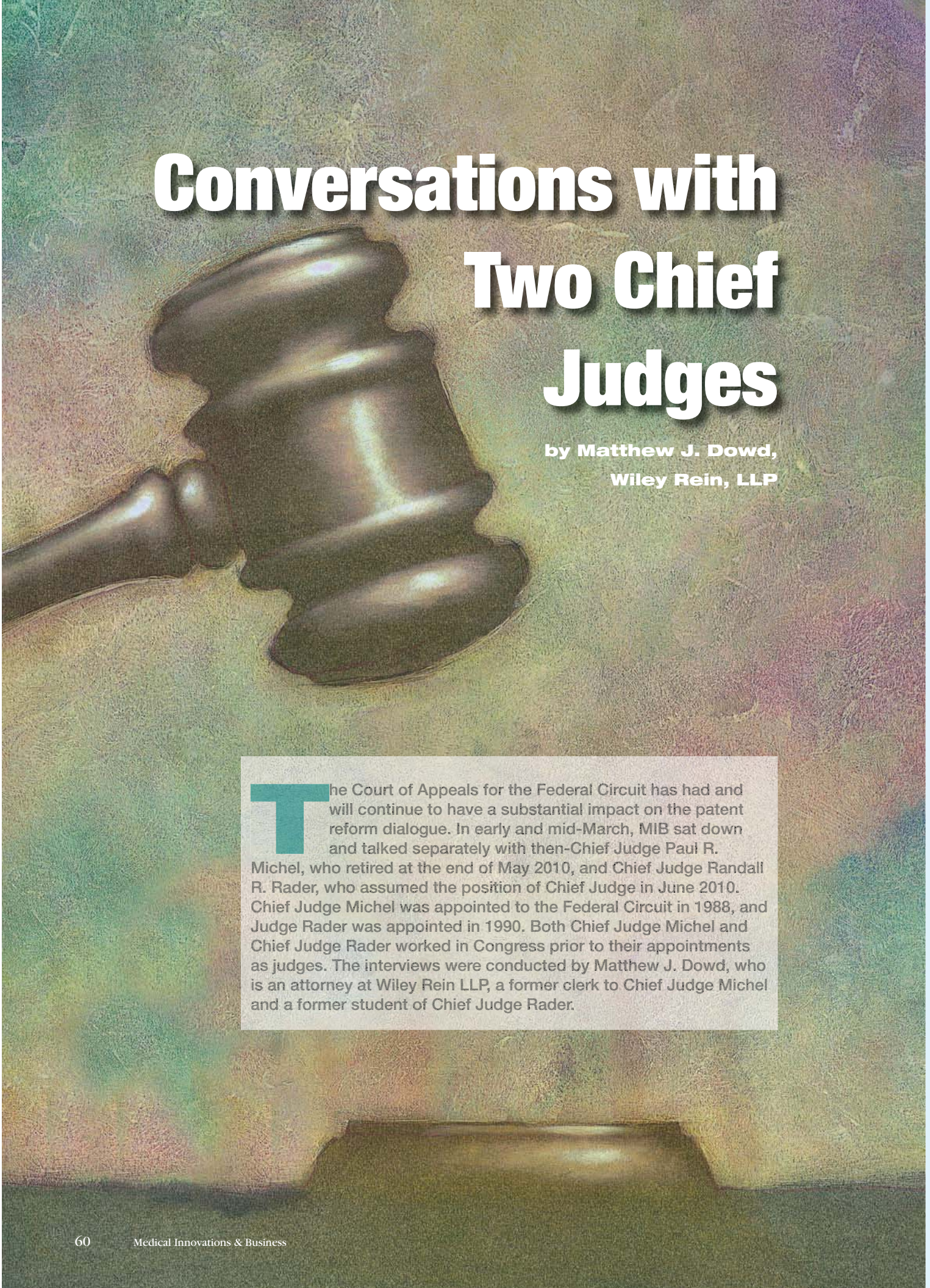
The final limitation would allow the Federal Circuit to remand cases if a district court's certification is "clearly erroneous." Giving the Federal Circuit some authority to reject ill-founded interlocutory appeals is a step in the right direction, but it does not go far enough. Moreover, it creates the risk of delay as cases ping-pong between courts and promotes collateral disputes that would divert resources from simply resolving the case under the normal rules governing appeals that apply to civil litigation generally. For those reasons, any attempt by the House to follow the lead of the Senate in modifying the interlocutory appeals provision with procedural limitations would be ill-advised.

Instead, the House should follow the lead of the Senate and scrap the provision entirely. The perceived problem of excess reversals of claim construction rulings that has motivated the current provision is a function, if anything, of the *de novo* review standard applicable to claim construction, not the final judgment rule. Given the inevitable reconsideration of that standard by the Federal Circuit,[21] the proposed tampering with the basics of our appellate process is hasty, unnecessary and unwise.

CONCLUSION

The interlocutory claim construction appeals provision in the Patent Reform Act of 2009 diverts attention from the real issue of *de novo* review of claim construction orders and could subject the Federal Circuit to a deluge of wasteful appeals. Compensating for the Federal Circuit's lack of discretion with procedural limitations would create wasteful satellite litigation criticized by the Supreme Court in *Mohawk*. It would be the wrong solution to the wrong problem. ■

15. Wright, Miller & Cooper, Federal Practice and Procedure, § 3911.1 (2d ed. 1992).
16. In 1990 and 1992, Congress consigned expansion of interlocutory appeal jurisdiction to the Supreme Court rulemaking process through amendments to 28 U.S.C. §§ 2072(c) and 1292(e). This reform was spurred by recommendations from the congressionally appointed Federal Courts Study Committee, which criticized imprecise definition of "final" orders as "produc[ing] much purely procedural litigation." *See Mohawk Industries, Inc. v. Carpenter*, 130 S.Ct. 599 (2009); Report of the Federal Courts Study Committee, 22 Conn. L. Rev. 733, 834 (1990); Robert J. Martineau, "Defining Finality and Appealability by Court Rule: Right Problem, Wrong Solution," 54 U. Pitt. L. Rev. 717, 718-26 (1993); Adam N. Steinman, "Reinventing Appellate Jurisdiction," 48 B.C. L. Rev. 1237, 1238-39 (2007).
17. The only definite, and beneficial effect of this provision would be to prevent interlocutory appeals of avowedly tentative claim constructions entered as part of a preliminary injunction proceeding. *See Int'l Comm. Materials, Inc. v. Ricoh Co., Ltd.*, 108 F.3d 316, 318 (Fed. Cir. 1997).
18. Wright, Miller & Cooper, Federal Practice and Procedure, § 3930 (2d ed. 1992).
19. *See, e.g.*, *Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc.*, 375 F.3d 1341, 1350 (Fed. Cir. 2004) (stating that a district court is not "obliged to construe undisputed claim terms"), *reversed on other grounds*, 546 U.S. 394 (2006).
20. *See* Wright, Miller & Cooper, Federal Practice and Procedure, § 3930 (2d ed. 1992). ("Immediate appeal [under 28 U.S.C. § 1292(b)] may be found inappropriate if there is a good prospect that the certified question may be mooted by further proceedings . . ."); *e.g., Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 582 F.3d 1288 (Fed. Cir. 2009) (finding claim construction arguments moot); *T.F.H. Publications, Inc. v. Hartz Mountain Corp.*, 67 Fed.App'x 599, 604 (Fed. Cir. 2003); *Hester Indus., Inc. v. Stein, Inc.*, 142 F.3d 1472, 1485 (Fed. Cir. 1998).
21. A solid majority of the Federal Circuit are on record supporting the reconsideration of the *de novo* standard of review. *Cybor Corp. v. FAS Technologies, Inc.,* 138 F.3d 1448 (Fed. Cir. 1998) (*en banc*); *see Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1040-46 (Fed. Cir. 2006); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (Mayer, J., joined by Newman, J., dissenting, "Now more than ever I am convinced of the futility, indeed the absurdity, of this court's persistence in adhering to the falsehood that claim construction is a matter of law devoid of any factual component.").



Conversations with Two Chief Judges

by Matthew J. Dowd,
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The Court of Appeals for the Federal Circuit has had and will continue to have a substantial impact on the patent reform dialogue. In early and mid-March, MIB sat down and talked separately with then-Chief Judge Paul R. Michel, who retired at the end of May 2010, and Chief Judge Randall R. Rader, who assumed the position of Chief Judge in June 2010. Chief Judge Michel was appointed to the Federal Circuit in 1988, and Judge Rader was appointed in 1990. Both Chief Judge Michel and Chief Judge Rader worked in Congress prior to their appointments as judges. The interviews were conducted by Matthew J. Dowd, who is an attorney at Wiley Rein LLP, a former clerk to Chief Judge Michel and a former student of Chief Judge Rader.

MIB: Let's start with the purpose of the patent system. Two goals or objectives of the patent system are to provide an incentive to innovate and an incentive to disclose new technologies. Based on your experiences, how well do the current laws further those two goals of the patent system?

MICHEL: Well, I think the substance of existing patent laws advances those two goals very efficiently, very effectively. It's actually hard for me to think of changes in the substantive of patent law that would increase the power of the patent system to incentivize innovation. In my view, we might even say that the purpose of the system is to incentivize investment because most innovation requires a lot of upfront investment to pay for people, to pay for laboratories, to pay for materials, pay for clinical trials and so forth. So I think the key thing to focus on is the incentive to invest. That's what creates good R&D and innovation. That's what creates medical advances and I think medical innovation is presently the single most important activity in the United States.

RADER: Yes, I agree, but I don't think the patent system is limited to those goals. Those goals are often cited as the two main ones, but you have to realize the patent system also gives a great incentive to convert the ideas of patent applications into useful technology. So often patents do their best work after they're issued by giving an inventor the capital and incentive to convert his ideas into something that the public can use, into products, into new cures and pharmaceutical inventions and into communication inventions—inventions of all kind. So it helps to convert those into useful technology.

MIB: For example, even if one patent does not lead to a commercial product, it may be the foundation for future patents and therefore future products.

RADER: That too. That's still another incentive built within the patent system, and that's an incentive for additional research and improvement upon patents that are already available to the public. So, the disclosures in one patent can lead to improvements that may even be more important than the original patent.

MIB: Are there aspects of the patent system's procedural regulations or rules that ought to be changed or improved?

MICHEL: Well, I think that one of the most important things about a patent as it works in our system is that it is supposed to embody a right to exclude. And therefore, in my view, the ability to get injunctions in appropriate cases is crucial. No matter how much damages for past infringement a patent owner might get, if a patent owner can't have a reasonable chance to literally exclude people from pirating the technology covered by the patent, then the system, in my opinion, is not adequate. The key barometer for me is not so much the size of damages awards or how long it takes to get them or what the interest rates are on pre- or post-judgment interest. The key is: can people who deserve an injunction get an injunction early enough? And I'm talking particularly about a permanent injunction. Preliminary injunction is a little different because you don't yet know enough about validity and infringement. Once in a while you do, but in a typical case, you don't know so much about infringement. So, I think some people might make the argument that it's too difficult to get a permanent injunction now. I haven't seen enough statistics to be sure where I come out on whether it's too difficult or just about right, but it is a concern, and I think it's the single best measure of the efficiency and effectiveness of the patent system.

MIB: Do you think that there are any groups, such as think tanks, industry groups or academic commentators, who might underestimate the goals of the patent system with respect to providing an incentive to innovate?

RADER: Clearly, clearly. We've seen far more detractors of our system than those who really recognize much of the power of the international market which is built on innovation. The protection of that innovation is what spurs market growth and productivity of our entire economy. Take the pharmaceutical industry, for example. Without the patent system, pharmaceutical companies would not have the incentive to pour the millions of dollars into R&D that is necessary to get their drug products approved by the FDA and bring them to the market. Companies need the protection of the patent system, the right to exclude, in order to develop new technologies that meet consumer demands. Otherwise, other companies could use the technology you developed without supplying the money necessary to back the R&D.

MICHEL: I think there are many, in particular, in the academic world, who seem to assume that nearly all useful innovation would occur anyway, in the absence of the patent system. Certainly some individual inventors don't need big labs, big staffs, big budgets and years and years of R&D effort. They might create a particular new invention without the incentive of a patent. And there may be individual scientists who likewise might invent without the incentive of a patent. But for most inventions, it seems clear that significant investment of money up front is needed, and it can only come from two sources—either from government grants or from private finance. And it seems clear that, in the current environment, our national budget is in disastrous shape. The deficits and total indebtedness of the country are enormous. So I don't see how we can look to public funds being invested in R&D to save the country's economy from steady decline that I think it otherwise will experience. It will have to be private money. And it seems absolutely clear that you often can't get significant private money to finance R&D, except by the

prospect of powerful patents. So I think the economic future of the country really is going to turn out to rest primarily on the strength of the patent system.

MIB: Based on your experience, do you think any alternatives to patent protection are feasible or would be beneficial? For example, could stronger trade secret laws or a government-sponsored prize system increase innovation?

RADER: No and no. We essentially have those systems. We have government grants of research, which are prizes for various ideas, but those are so inadequate to fund the kind of research we need to drive forward a cure for cancer or a cure for AIDS. The amount of money devoted to AIDS research by governments is a tiny fraction of all the research that goes on. And it would be totally inadequate to rely on government funding or government prizes to drive the kind of innovation that spurs our entire market across many disciplines. The government does not have the resources to fund the R&D required for the technological breakthroughs that the patent system supports. It is not a feasible alternative to patent protection.

As for trade secret laws, they effectively allow a perpetual monopoly in the invention. The whole point of the patent system is to support innovation and one of the most important aspects is to allow people and companies to build upon the inventions of others. Trade secret laws cannot serve as an alternative to the patent system because they do not serve the same purpose.

MICHEL: Well, if by government-sponsored prizes, you are talking about significant monetary awards to compensate R&D efforts, then yes, that would certainly help to create additional incentives. But, where is the money going to come from to fund these large government awards when the current budget is already in such bad shape to the point that the Patent Office can't hire any new people or can't buy the computers that it needs? Where will the money come from? What program will be reduced in order to generate money to fund significant prizes?

Now, if you're talking about symbolic prizes, such as a trophy, a plaque or some medal to hang around the neck of the inventor at a ceremony at the Kennedy Center, well yes, that would provide some psychological incentive. And it might help some, but I think it would be very minimal. I think you basically are talking about big money. That can either come from the government in a form of research grants or prizes or it can come from the private sector. I'm not an economist, but as far as I can see, it's not going to come from increased public spending because there is no source of increased public spending. So almost all of the innovation will come from private financing of expanded R&D. Now, as far as the trade secret system is concerned, I don't think the trade secret laws are weak. So when you're talking about stronger trade secret laws, I can't quite imagine how they could be strengthened.

On the other hand, if you talk about the patent laws, I think the patent laws quite readily could be either strengthened or weakened depending on which direction you think they should move in. My own view is, if anything, the patent laws should be strengthened, not weakened, precisely to create the confidence on the part of significant investors, such as venture capital funds. Financing of R&D is needed not just in large companies, but in start-up companies, in brand new embryonic companies and companies of every size and stage of growth in every technology. If you can't come up with the money to support the R&D, you won't get the invention and very few people are willing to invest significant money in R&D unless there is high confidence that they'll get it back later through the enforcement of patents. So I wouldn't worry about strengthening the trade secret laws. I'd worry about strengthening the patent laws.

MIB: You both have traveled the country and the world extensively, discussing the U.S. patent system and U.S. intellectual property laws in general. During that time, have you considered which features of the U.S. patent system are better or alternatively worse than features of non-U.S. systems?

MICHEL: Well, I think the U.S. patent system is, in general, the envy of the world and most countries seem to be moving as rapidly as they can toward adopting much of the American model. If you look around at the substantive patent law of any other country, I can't name one that I would say has better substantive patent law than we do. So I think many countries will continue to borrow various features, most features from the U.S. patent system. And we aren't likely to adopt substantive patent law features from other systems.

Now if you're talking about litigation, I think American civil litigation in general, commercial litigation of which patent enforcement is a part, could be improved by reforms in discovery and in motions practice. My impression is there's a lot of excess discovery—very costly, very time consuming, and very disruptive to the companies involved. Millions and millions of dollars in a patent case can be spent on just complying with discovery demands. I'm very impressed by the comments of magistrate judges, for example, who talk about how, after all the discovery and disputes are complete, 99.99% of the discovered material turns out not to be relevant to trial, and not used at trial. In a way, it was all a waste, looking at it in hindsight. So, if I could redesign the American litigation system to be more like the British high court in London, where most of the patent cases are tried much faster and cheaper than here, I'd favor that. So, to that extent, I'd favor imitating some other jurisdiction but not generally.

In terms of the patent office itself, I'm told that the salaries of patent examiners in the European Patent Office are better than the salaries of examiners here in the United States. So in that way, I'd like to imitate some foreign Patent Office practices. I'm told they have vastly more experience and vastly better paid

Our law has some aspects which are superior to anything else in the world. Our grace period of a year gives inventors a chance to assess their invention before they undertake the process—often an expensive process—of preparing and prosecuting their patent application.

examiners. Not only the primary examiners but supervisory levels as well and I certainly would favor that amount of imitation of foreign practices. But in general, I think our system is very good. Not perfect. No system is perfect. But I certainly can't think of any country's patent law that I would say "Let's swap because country 'X' has better patent law than we do."

MIB: Judge Rader?

RADER: Absolutely, I have considered the issue. Some features of the U.S. system are better than non-U.S. systems and some are worse. Let's deal with some of the aspects of foreign law that are better. The first-to-file system is more efficient, faster, and less complicated than our first-to-invent system, which often entails interferences, which are expensive and usually unsuccessful. So that's one sense in which foreign systems are better. Another one is foreign systems have not developed some of our intricate, complicated, and counterproductive doctrines, such as inequitable conduct. Inequitable conduct was supposed to be the way we ensured adequate prior art. Every other system in the world seems to find the same prior art and do excellent examinations without the complications of inequitable conduct law.

Now, on the good side, our law has some aspects which are superior to anything else in the world. Our grace period of a year, for instance, gives inventors a chance to assess the value of their invention before they undertake the process—often an expensive process—of preparing and prosecuting their patent application. Another good thing in U.S. law is our obviousness standard, which incorporates secondary considerations as a primary feature. Secondary considerations may often be the strongest indication of non-obviousness because they balance the danger of hindsight with objective evidence. That is why secondary considerations can vastly inform a prima facie case of obviousness. They help a court factor into the obviousness analysis the value of the invention to the industry and the public in general. That's not used in other jurisdictions. And I think ours is superior in allowing that vast amount of additional evidence that can be very probative of the value of an invention and its contribution.

MIB: Is there anything else specifically with respect to intellectual property law that you think the U.S. could adopt from another country to improve our system or the rest of the world could take from our system to improve their systems?

MICHEL: Well, I think that there are areas where the application of U.S. patent law could be improved. I think our law could do a better job of discouraging weak claims of inequitable conduct or patent misuse. I think a huge amount of money and time are wasted and reputations are trashed inappropriately and unnecessarily. But those seem to be areas where the courts ought to modulate the way that the laws apply as opposed to areas that call for legislative intervention by the Congress here or the parliaments in other countries. So I think there are improvements to be made, but they don't so much come from imitating some other country's practice or their substantive law or their procedure law. They really are adjustments that we should make as the case law evolves here in the United States. And, in general, it seems to me the courts, not just the Federal Circuit but the district courts, are in a better position to make ongoing adjustments in the application of patent law compared to the ability of Congress, who comes swooping in with some broad and necessarily simplified and kind of rigid rule. I look at the new patent law proposal and there must be fifty places where it says "the court shall" and then it requires very specific action by the court in a certain generalized kind of circumstance. My experience as a judge has basically been, sometimes the court should, and sometimes it shouldn't. It all depends on the facts, the evidence and the circumstances. So I get a little bit nervous about major legislative interventions in how courts handle patent law.

MIB: Judge Rader, would you want there to be some consideration of these differences between U.S. and foreign systems—to examine what works here and what can be improved?

RADER: Yes, I think that's clearly the case. I think some of those things are a part of the current process that's underway. They're trying to move to a first-inventor-to-file system, which is pretty close to the rest of the world. As I said earlier, if the American grace period is not weakened in the process, this will be more efficient than our first-to-invent system with its expensive interferences. Our best mode is really something which has no place in the law of patents and I think that the current patent reform effort is trying to

bring U.S. law into harmony with the rest of the world on that front. This requirement is really a trap for the unwary that serves little purpose in patent law.

MIB: With respect to differences among countries in patent laws and patent systems, how much do you think cultural and historical attitudes and experiences impact those differences? And, you have done a lot of work in China and India, for example. Can you give us some insight in terms of where those countries stand now, and to what extent historical and cultural differences have led to differences in their patent systems and whether these differences can or should be completely harmonized?

RADER: Let me answer the last question. Clearly, there is an advantage to everyone in the world having a harmonized system. To the extent that India, for instance, does not acknowledge, and come up to the international standard for protecting intellectual property, it's harming its own economy and its own inventors. Those countries inhibit investment into their economies by intellectual property-driven industries and they're losing inventors and innovators to foreign jurisdictions who will go where their ideas can be protected.

That being said, China in particular is making great efforts to come up to the international standard. There are more IP suits in China than in any other nation. Now, most of those are still on the trademark and copyright side, but there's a growing patent jurisprudence in China. With time perhaps, there are government acknowledgments of the need for stronger protection of intellectual property; and with time, there is hope that they will achieve the international standard and reap all the benefits which accompany a well-functioning patent system. I think China and India will embrace just how important patent protection is for protecting their technology and the technology of foreign inventors and growing their economies and they will build upon our patent laws as a strong foundation in creating their own patent systems.

MICHEL: Well, I think in every country, the patent laws and how they're actually applied in practice are hugely influenced by cultural and historical forces, traditions, social mores and so forth. That's true here, it's true in China, it's true in just about any country you can name, and in many places, it's the dominant influence. But given that, it seems to me the general goal of harmonization, which is a good goal, can easily be overdone because you could say, "Alright, if, in Europe, no sort of business method, software program or financial engineering is eligible for patenting, we should therefore adopt the European approach." But I think that would be a big mistake. The same is true in biotech. Lots of things that are patentable or commonly patented here are, as I understand it, not patentable in Europe or elsewhere. So if harmonization means simply moving to the half-way mark between what we do now and what Europe does now, that could be a weakening of U.S. patent laws.

But if harmonization entails coming to areas where there is agreement and not simply meeting at the fifty-yard line, I'd be all for it. First-to-file might be an example of something where there is virtually unanimous practice by everybody else and where we might move in that direction. I think the current patent revision bill takes an important step in a good direction. But, if you're talking about harmonizing across the board in every detail, I think it would be very much a disadvantage to the United States in its innovation power if, for example, we simply adopted the EPO practice, the Japanese practice, the Korean practice or the Chinese practice. So to that extent, I'm not sure I'm in favor of harmonization.

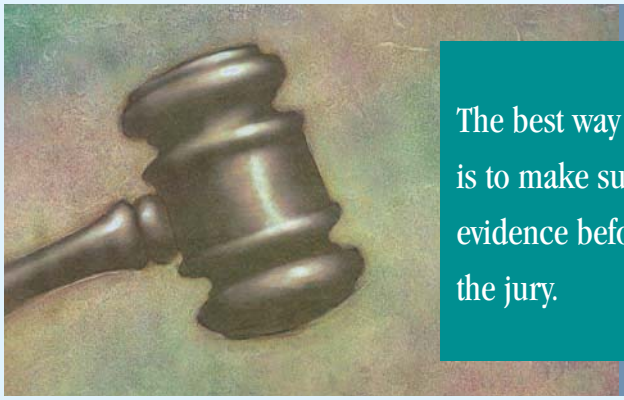
MIB: Turning to patent reform specifically, as you are aware, an amendment to the Senate patent reform bill was recently released. That bill and versions of it have been percolating since at least 2005. In that time, much has changed in the case law of the Federal Circuit and the Supreme Court. It seems to me that the natural common law process continues to address many concerns that industry groups or others have about the patent system. Is there a need for patent reform?

RADER: As you point out, the common law process seems to be quicker than the legislation, doesn't it? It's been five years, maybe more, since the patent reform effort has been underway, and during that period of time, we've seen *Seagate*, for instance, which has completely overhauled the law of willful infringement. And that's only one of many examples to be used to show that the courts do tend to respond to the needs of the system through the decisional process.

MICHEL: I struggle a little bit with the phraseology of "patent reform" because, if you call a legislative proposal "patent reform," the insinuation is that it's improving the patent law. But it may simply be changing it. It's even possible that a given legislative proposal could change the law in a very negative way. So, is that really something you should call reform or just revision?

Some cynics talk about the patent "deform" bill because in their opinion, it's a step in the wrong direction. I don't have that view myself. Even though I wouldn't say patent deform, I'm not so sure the glib phrase "patent reform" doesn't risk blinding us to the specifics of each provision. One by one, does a provision improve the law? Does it strengthen the law? Will it create more innovation, including in medical technology, the most important area, in my opinion, of research in the whole country, or not? And I think the answer may vary a lot, depending on which provision of any of the various versions of the so-called patent reform bill, including the most recent version one considers.

MIB: One thing that members of the bar may not fully appreciate is how infrequently certain issues are presented properly for the court to decide. Is that something that reformers should consider?



The best way for courts to fulfill their role as gatekeepers is to make sure the damages are based on sound economic evidence before the damages assessment is presented to the jury.

RADER: Of course that's always an issue. A court is required to decide the case before it, and that means we don't reach out to create issues where none exists. Therefore, we are dependent, to some degree, on our bar to bring us the cases. But again, it's not always their choice either. It's simply what issues arise. Often the issues which are of concern to the Congress also are going to arise before our court, but until they reach us in the form of adjudicated issues, we don't really have the option to reach out prospectively and solve problems.

MICHEL: And I also think it is very important for Congress and the courts both to be conscious of their respective roles and their strengths in the application and interpretation of the law. Management of individual cases is mainly the business of the courts and it's what the courts have vast experience and presumably considerable expertise at doing. On broad economic policies, the legislature has a level of experience and expertise, and political accountability to the citizenry that makes it the better actor. So it seems to me portions of the current S.515 are quite appropriately focused on the Patent Office, but I wish there were more of them and that they were stronger and included some funding. Regarding the parts of the bill focusing on what occurs in the courtrooms, I have much less confidence that some of those provisions will help. And I think legislators, judges, and everyone else should be mindful of a physician's starting principle, embodied in the Hippocratic Oath, of "above all else, do no harm." So, I hope that as the Congress continues to refine its proposals and ideas on patent law revisions, Congress will be mindful of the relative expertise of the legislature versus the courts.

MIB: That takes us to at least one of the more controversial issues in the patent bill, namely the damages provision. Some groups have complained about how the Federal Circuit's case law addresses damages calculations and how juries and judges assess reasonable royalty damages. Over the past half a year, the Federal Circuit has issued what many view as three significant damages cases—*Microsoft v. Lucent*, *ResQnet.com* and *i4i*. Do you think, with the recent cases, there is any need for significant overhaul in the damages area?

RADER: Well, I'm going to quibble with you a bit. I'm going to say that those three opinions are all important and significant, but I think they reflect only the court's long-standing jurisprudence and I would list a long line of cases. I'll start with *Rite-Hite*, and I'll go to *Grain Processing* and I'll follow with *Riles v. Shell* and *Crystal Semiconductor*. I could continue this list a bit longer than you might wish to listen, but I think the Federal Circuit has been sending for some time the message that damages are to be based on sound economic evidence. I think in *Crystal Semiconductor*, we actually said we wish to see the slope of the demand curve, which is, of course, the economic view of how sensitive a product actually is to price changes. Those price changes in turn can be linked to the claimed invention and we can then better judge how much that invention has contributed to the technology.

But back to your point. We have had those recent opinions. I think they are merely the most recent iterations of a long list of damages opinions from the Federal Circuit in which we emphasize that you confine the damages to the scope of the claimed invention and you prove it with sound economic evidence. The best way for courts to fulfill their role as gatekeepers is to make sure the damages are based on sound economic evidence before the damages assessment is presented to the jury. I think the Federal Circuit has made this clear in our recent decisions, but again, these decisions in no way move away from the court's long-standing jurisprudence. The most recent cases simply clarify the law; they do not create new law.

MICHEL: I don't see any strong evidence to support sharp changes in damages doctrine. I think the damages doctrine was actually quite good even before the landmark cases the Federal Circuit and the Supreme Court of the last five years or so. And I think it has improved and it will continue to improve. That's the genius of the common law system. Circumstances change, technology changes, business changes, litigation tactics and arguments change, and the courts can continue to adjust to those changes in a way that legislation can't. If Congress passes a bill, it will probably be another fifty years before they revisit the issue. Whatever they legislate will likely be locked in place for decades, which is why I think it's so important for legislators and courts to be cautious, to be careful, and to make sure they're not creating negative consequences.

It's certainly true that, in isolated cases, questions can be legitimately raised about the size of damage awards, but the question is: what happens in the normal case? All the discussion seems to be based on anecdotes focusing on a handful of cases out of the thousands litigated out of the last decade or two. I am very anxious about whether legislation by anecdote is a safe way to proceed. Also, with some of the cases people complain about, the dollar amount was large, but compared to the size of the market, a very large dollar amount seems entirely appropriate. In other cases, there are complaints that certain evidence was allowed to go to the jury. When you review the record, however, there was no objection to the evidence going to the jury. To later say that shouldn't have been allowed really raises questions about judgment calls of the litigators, not about what courts are doing or the substantive patent law.

My impression is that there are some challenges in damages law that courts are addressing quite actively, quite successfully. I don't see a case for saying the average award should be lower than it is or that the role of juries should be significantly changed. Some of the stuff that's in this bill is kind of window-dressing because it just tells judges, "You have the power to do what you already have the power to do." This probably doesn't cause any harm, but it's not clear how meaningful it is. The so-called "gatekeeper provision" in the bill seems to just state what is already within the power of every district judge. Same thing on venue. It's already the obligation of every district judge to send a case to another venue that's "clearly more convenient" to the parties, the witnesses and the location of documents.

Where the provisions actually make changes, there's a risk that they unduly restrict the flexibility that district judges need in order to accommodate enormous variations in fact patterns and proofs. Overall, I think damages is an area where Congress should be cautious, just as courts should be cautious.

MIB: Judge Rader, do you see any need for a major overhaul in damages law?

RADER: Well, I think you've seen already that Congress has cut back on some of its earlier proposals, and for good reason. As I've mentioned, you've got to key the scope of the damages to the scope of the invention. That's not something you can do by legislation. Some very important inventions have driven the demand for a product and there is then a justification for high damages. In other instances, a claimed invention is only a small contributing factor to a product's demand, which is driven by many inventions, many innovations and many design features. In that instance, again, the court has to have the flexibility to factor out these other causes and perhaps limit the damages significantly. That's not something you can do by legislation. You can't decide individual cases by legislation and I think the more recent version is suggesting that trial courts should step in and make the proper rulings to make sure that the damages law works.

MIB: Of course, many people agree that your opinions from the *Hewlett-Packard* case, in which you sat as the trial judge in New York, exemplify a proper approach.

RADER: Of course, that might get overturned! It will be fun to see if we get the headline "Federal Circuit Overturns Chief Judge." That would be a great headline. It may happen, I don't know. I'm sitting on five cases in the Eastern District of Texas right now. That's five more chances for the headline.

MIB: Do you think it's important or helpful for Congress to consider the judiciary's views on some of these reform issues? I assume that if Congress were ever to ask you your views you'd be willing to tell them, but do you think that is something they ought to consider?

MICHEL: Well when Congress is focusing on the Patent Office, they have ample means to be very well-informed and they have every right to make all the policy choices and all the administrative decisions that they want to make and they can do so very, very soundly. I have no doubt about it. All the parts of the bill that focus on the Patent Office probably don't need any help from courts or judges or litigators or legal experts.

But when you talk about the provisions in the bill that deal with what happens stage by stage in the typical patent infringement case, I would have thought that the Congress would be very eager to hear from litigators and district judges particularly. It's my impression from reading much of the testimony—not every single witness's testimony, but much of it—that there were hardly any patent litigators who were called to testify. There were no district judges called to testify, as I recall, no magistrate judges who handle discovery matters, no judges called to testify on general procedural matters from judicial conferences rules committee and the people who head it—the Civil Rules head is a judge named Mark Kravitz, he would have been an ideal witness—he wasn't called. And of course, last and maybe least (as opposed to the cliché "last but not least"), somebody from the Federal Circuit might have been called as a witness. But the witnesses actually called were nearly all chief patent counsel from individual companies that had an axe to grind on these issues in one direction or another. So Congress might not have received as full a picture as they could have if they had called more litigators and some judges at various levels.

If I had been asked—which I was not—of course I would have given views to the extent appropriate for a judge to do so. And I assume that nearly any patent-savvy district judge, if asked to testify, would have certainly agreed to testify. I would bet money that any patent litigator of broad experience representing both patentees and infringers would have been happy to testify, but they weren't called. And I think that that's kind of a shame. It provides some grounds to worry about the

In my opinion, the best thing Congress could do would be to give the PTO about a billion dollars on an emergency basis to completely upgrade their systems.

depth of understanding, particularly the Congressional staff. Of course, the members are so busy with a thousand other hugely important issues. Maybe they didn't get all the nuances and all the details quite straight and that creates potential problems.

As you know, I wrote to the leaders of the two judiciary committees in 2007, without request from them, about two provisions that I thought would have a great impact on the workload of the court. It is clearly established that judges, while they're not supposed to be opining to Congress about broad policy choices, are supposed to opine to Congress about direct impacts on the courts' workloads because that can delay the disposition of all cases and create big problems. So I did, in an appropriate and cautious way, talk about the impact of interlocutory appeals, for example. I thought it was interesting that I never got any response. I didn't get an acknowledgment letter. I didn't get any inquiries from staff. I wasn't told "We think you're right" or "We think you're wrong." On the other hand, I see in the most recent revision that the interlocutory appeal provision was removed. So I can't claim that Congress didn't listen, because apparently they did listen. They removed the provision.

It's interesting how little involvement judges at any level had, and how little involvement knowledgeable litigators had, and I think that's a little unfortunate. It also seems to me a little unusual that the committees didn't ask for the Judicial Conference's views. Congress normally does that with many pieces of proposed legislation. Usually, the Judicial Conference, through its various committees, will study and analyze the matter closely and provide extensive commentary to Congress. But in this case, the Conference wasn't even asked. So nothing was provided on behalf of the judiciary in general. So, the process here in a way short-circuited some of the methods that have been used in other circumstances, and I think that probably was risky and a little bit unfortunate.

RADER: I do think it's helpful for Congress to consider the views of the judiciary. Of course, that's Congress's prerogative. They can ask whomever and for whatever kind of feedback they would like. As you know, I worked on the Hill for over a decade, including as General Counsel and Chief of the Senate Committee on the Judiciary's Subcommittee on the Constitution from 1981 to 1986, among other positions. I always found great value in contacting judges, and, occasionally, I would even invite them to testify. It's a little difficult. They would tend to decline if it was a substantive issue, but a lot of these substantive issues overlap into the burdens that they will put on the court. And so, I think there is room for judges to be heard on significant legislative reforms.

MIB: Turning to the U.S. Patent & Trademark Office, the conventional wisdom is that the PTO isn't living up to its potential. Some complain about so-called questionable patents. Others bemoan the long delays in getting patent applications examined and patents issued. In your view, what issues are more appropriately addressed by internal PTO reforms as opposed to judicial reforms? Which specific concerns of the patent reformers are more appropriately addressed by specific rulemaking, for example?

RADER: Well, there's a lot in that question. The Patent Office really doesn't have authority to do substantive rulemaking. They do have authority to do procedural rulemaking and try and improve the speed and efficiency and quality of the patent examination process. I've seen indications that the Patent Office has been trying to do that for the last several years.

MIB: I get the sense that you wouldn't be opposed to anything that would help facilitate the PTO's job.

RADER: No, absolutely not. As a matter of fact, this is another area where we can look at foreign systems and most foreign offices have a post-grant review process of some kind. For example, in Europe, the post-grant opposition procedure can be quite effective. But you need to study the issue carefully. To the extent that there is unlimited review, it would seem to cast a perpetual cloud over the value of the patent. You must also be concerned about detracting from the process by permitting multiple challenges beyond a set period of time. But I get the sense that Congress is aware of those downsides, and it is making an effort to address those concerns.

MICHEL: Well, I think all the improvements that need to be made in the Patent Office are squarely the responsibility of the legislature. It seems to me absolutely clear that the Patent Office is grossly

under-funded and can't possibly do its job well under current circumstances. It's well known that its computer systems are outmoded—to put it in the kindest, most minimal way—and that a vast improvement is needed in all of the computer equipment at the PTO. It will probably be very expensive and, in my opinion, the best thing Congress could do would be to give the PTO about a billion dollars on an emergency basis to completely upgrade their systems.

Secondly, Congress no longer funds the Patent Office; it's entirely funded by the user fees of patent applicants and owners, as you know. But the fee level has been controlled by Congress. So the fees, because of Congressional inaction, have not kept pace with the growing costs of doing the examinations, re-examinations and the rest. This has resulted in a chronic underfunding of the Patent Office. On top of that, for several years, Congress diverted some of the fee income to other uses. The rumor is some money indirectly funded earmarked projects designed to help individual Congressmen curry favor with local voter groups in order to enhance their reelection efforts. I think that the diversion of applicant fees outside the Patent Office is a disgraceful action. Even though it was discontinued in the last several years, it could happen again at any time because there is no prohibition against diverting fees.

So when you talk about the Patent Office not being up to its potential, I think you're being much too generous. I think the Patent Office is practically a disaster zone. They're losing examiners by the hundreds every year. They're in a situation where they need a couple thousand more examiners, but they're actually losing examiners every single month. They've been under a hiring freeze for the better part of the last two years or so until the very recent effort to recruit examiners. Also, the examiners' salaries have to increase sharply to retain examiners for more than about two years, which I'm told is the opt-out time for the majority of examiners. The PTO needs people who've been there five, ten, fifteen, twenty years, not two or three years. So they need much higher salaries, they need many more examiners, they need a completely new computer operation and they need fees to be set, both application fees and maintenance fees, at a realistic level—which they're not now because Congress keeps them at too low a level. All those things are within Congress's power to change if it wants.

But of course, if you're going to buy new computer systems for the PTO, you're talking about huge expenditures. I don't see a single dollar that's authorized to be spent in the Patent Office by this patent reform bill. That might be the greatest single need of all—an emergency transfusion of money to get the Patent Office back up and running decently, which in my opinion, it's not now.

The delays are horrible. Delays frequently run to five or six years in many important technologies, which is just disgraceful. Even the average of about 3½ years is way too slow. Plus you have the irony where the patent has to be published after eighteen months. So everybody worldwide can copy the technology and meanwhile the applicant can't even protect his invention because he has to wait for a patent several years after it's been shown to the world. It's just absolutely terrible. We've got to be able to issue patents within about a year, in my opinion, if we're going to be globally competitive and if we're going to revive the economy, which will depend more on innovation than on any other single source.

MIB: As you both know, David Kappos is the new Director of the PTO. I think most people agree he is taking a more open approach with the patent community and trying to create a functional dialog. Is there anything you would say to members of the patent community who might be frustrated or become impatient with Director Kappos's proposed reforms and changes?

RADER: We all have an interest in a strong patent system, and we all need to work together, so I would urge us all to work with Director Kappos and give him our input and our support as he does his best to make the process more efficient.

MICHEL: I think Director Kappos has been a breath of welcome fresh air in every way, and has done everything humanly possibly within the horrible constraints that he's working under, but he can't do anything more. He needs more people, better people, people to stay longer, vastly better computers and better fees, none of which he can give himself. They all have to come from the Congress. I think that Director Kappos is much too polite to complain, but I think when he took this job, he expected he would get heavy support from Congress of every sort, financial and otherwise. Instead what's happened is that they've cut his budget by using the early, too-low estimate of fee income to set the budget ceiling. It turns out the estimate of fees was wrong and the later estimate showed more fees coming in. But the way Congress set the ceiling, now there will be more PTO money dumped into the general treasury instead of supporting the horribly underfinanced Patent Office. If I were David Kappos—and I'm not saying what he thinks or feels because I don't know, he doesn't complain, I don't ask him, it's none of my business—I would feel very ill-treated by the Congress with this effective cut in his budget, which is already way too low, and now it's cut even further.

MIB: Some companies have complained about the excessive burden of having to search other parties' patents that might cover their products. In response, it's been suggested that some companies instruct their inventors, engineers, scientists, and employees not to search, in part to avoid willful infringement. This practice, whether warranted or not, seems to cut against the patent system's goal of disseminating information. Do you have thoughts on this issue?

MICHEL: I think any chief patent counsel who advises the scientists and engineers in his company that

they should never read patents is practically incompetent. There is no reason in my judgment why company researchers should have to ignore the patent literature. Hardly any damage awards are ever enhanced. In most cases, willfulness isn't even established, and even when it is, enhanced damages are not automatic. Everybody says, "Oh, then you get triple damages." No, you don't. You may get no enhancement of the damages. Judges are people of judgment. If the case was close, the judge won't enhance the damages, even if it's an exceptional case. The idea that treble damages are rampant is factually wrong. Again, analysis by anecdote is absolutely the worst way to analyze things. There are about 30,000 sizable companies in the United States today—that is companies with 100 or more employees. There are a vastly larger number of smaller companies, including many highly innovative start-up companies, in biotech, and many other technologies. Out of those 30,000 companies, how many have been shown to tell their scientists and engineers never to read any patents? I bet there aren't twenty out of the 30,000 that have told their engineers that.

Yes, some chief patent counsel testified before the Congress, "We've told our engineers 'Don't read the patents.'" But if that's one company, ten companies, twenty companies out of 30,000, does that provide a foundation to change the patent law because questionable advice is being given by a tiny minority of companies? If it were 20,000 out of the 30,000, I'd be worried, but I've never seen any quantification of this. I've seen a few anecdotes from a few company patent counsel and then echoed by academics. The echo chamber is so huge that you get the impression it's the norm. As far as I can tell, it's not the norm. It would be idiotic for it to be the norm, because there's no point in reinventing the wheel. If a certain technology has already been perfected and patented, there's no point in having a company's scientist waste time "re-creating" that invention.

RADER: Well, I think these issues—and the very question—was raised during the *Seagate* case. I recall the question coming up during the oral argument for *Seagate*. I have myself confronted situations where foreign firms have said we avoid consulting patents for fear of willful infringement. But, I think that was changed by *Seagate*. I think *Seagate* addressed the issue, made the standard for willfulness objective recklessness, and by raising the standard to a recklessness standard, I think *Seagate* made it quite clear that companies should take advantage of the opportunity to learn from other patents as they do their own research and make an effort to advance their own technology.

MIB: I suppose one factor that goes into the calculus is: by not searching it might be a pennywise, pound foolish policy, in that you end up being ignorant of the patents and just open yourself up to more litigation, which becomes more expensive.

RADER: Well, you said that very well.

MIB: Do you think the law of inequitable conduct should consider this burden of searching as a factor of whether someone has?

RADER: No. I think I've earlier said that inequitable conduct is a doctrine which has perhaps evolved out of its original purpose. If you look back to the old Supreme Court cases that created the doctrine, those were instances where a patent applicant lied, cheated and stole in order to get a patent, which they could not have gotten otherwise. Now, we would all agree that is inappropriate. But I don't think when the Supreme Court issued those opinions, they foresaw this full-scale doctrine which infects all litigation strategy. And they certainly didn't understand that it would be used as a club against a patent applicant who didn't fully disclose their small business status or made some other technical miscalculation in their disclosure. They saw it only as something which affected the heart of whether a patent would be granted at all. So, I think this is an instance where the law has kind of forgotten its purpose.

MIB: In essence, inequitable conduct has drifted away from the original cases.

RADER: Yes, drifted away. Again, the Federal Circuit is making an effort to address that. If you look at *Star Scientific* and *Exergen*, they're imposing specific pleading requirements and other efforts to try and bring that doctrine back to its moorings.

MIB: Chief Judge Michel?

MICHEL: Yes, I think the purported search concern as it relates to inequitable conduct is overstated. Again it's a few people talking about an isolated case here and there that is not the norm. No statistical support has ever shown, to my knowledge, that it's a big problem. For example, the law has been well-settled for decades that cumulative prior art references need not be disclosed to the Patent Office. Most relevant prior art references are cumulative. So, what's your obligation? You've got to submit the closest prior art. Anything that's less close doesn't need to be put in. The idea that people are being forced to dump thousands of prior art references on the examiners seems artificial and practically phony. On the other hand, I think sometimes some killer prior art isn't disclosed. Where that occurs, of course, there should be careful consideration of inequitable conduct, which of course requires deceptive intent as well as significant materiality. But, I think the problem is very overstated. I do think the Federal Circuit could clarify its case law in a way that would be very helpful because we have too many different standards of materiality. I think that's a fair criticism of our court, and I would love to see the court go en banc to clarify the materiality standard.

MIB: Let's talk about the court itself. There is one open seat with Judge Schall's assumption of senior status. Chief Judge Michel, when you retire at the end of May, that will open another seat. On March 10, President Obama nominated District Judge Kathleen

O'Malley to fill the current Federal Circuit vacancy. Many lawyers who practice before the Federal Circuit have lobbied for the nomination of a district court judge. Is that something you think will benefit the Court?

MICHEL: Absolutely. Yes!

RADER: Well, remember Judge Mayer was a federal trial judge for the U.S. Claims Court. But I think an additional district court judge would be beneficial, particularly one who had experience with patent cases. It's always helpful to have a judge who understands the difficulties of building a record and narrowing the issues. It's also beneficial having people who are familiar with the complexities of a trial process—a process that often ends in the appeal based on one narrow issue that received less attention than the rest of the case. So, yes, I think the perspective we could get from a district court judge would be marvelous. [Ed. note: Recall also that Chief Judge Rader was a trial judge for the U.S. Court of Federal Claims.]

MIB: Are there any other skill sets or experiences that someone could bring to the court? For example, would someone with significant business experience be a good addition to the bench?

RADER: Absolutely. I could think of some excellent individuals who are chief counsels of pharmaceutical companies, or communication companies or software companies. All of these would be a marvelous addition to the court.

MICHEL: Well, I'm not sure what you mean by "business experience." I'd love to see future appointments consider people with areas of expertise different from patent law. No one on our court now has spent a career wrestling with government contract problems or international trade problems. And there are other areas, such as veterans and personnel law. At some point, maybe one of the upcoming vacancies should go to somebody with expertise in one of these areas.

Within the patent realm, I would love to see somebody added to this court who has spent their lifetime doing patent litigation, particularly if they were on both sides of the fence. Judge Linn is the only judge on our court now who has considerable patent trial experience and there are sixteen judges, so I'd love to see somebody with a lot of patent litigation experience. Maybe the ideal patent expert would be somebody who did say twenty years of litigation and spent the last ten years as a chief patent counsel in a major company. That person could bring huge insights and value to the court. Of course, we have judges who used to be chief patent counsel but they weren't litigators. So the combination of the litigator/chief patent counselor, we don't have.

I also think an important role exists for somebody who is just a superb appellate thinker and advocate to be added to the court. We have three appellate specialists on the court now—Senior Judge Friedman and Judges Bryson and Dyk—and they add a lot, but I think there may be a place for other types of appellate specialists.

I also think that if you focus on personal characteristics as opposed to expertise, it might be appropriate at some point for a person from a background such as African-American, Asian-American or some other group, including of course women who are in somewhat short supply on our court. I'm not suggesting there ought to be quota. I don't believe in quotas. But the case can be made that, as time goes by, more women should be added to the court. And I think the case for an African-American or an Asian-American is even stronger because we don't have any and we haven't had any (besides Judge Kashiwa (1982-1986)). There are some talented people who have those backgrounds. So I'd like to see more diversity, defined in every possible way, on the court.

MIB: One impressive aspect of the court is the tremendous collegiality among the judges, the staff and everyone else. You are aware that S.515 proposes to abolish the so-called Baldwin Rule, which requires Federal Circuit judges to live within fifty miles of D.C. Do you have any thoughts you care to share on that issue?

MICHEL: Well, I have mixed views on this. I think that increasing the pool of talented lawyers, judges, practitioners in industry that might come from rescinding the residency requirement would be a good thing. On the other side of the scale, the danger of losing collegiality and consistency is also significant.

Look at it this way. If all twelve active judges of the Federal Circuit lived in twelve different states, I think it would severely harm the court's ability to provide adequate, consistent, coherent guidance for its wide array of jurisdictions. Imagine the Supreme Court with the justices living in and having chambers in nine different states. No one suggests that would be a great idea. So if you imagine that framework, I think it looks pretty bad. It looks like the risks and harms outweigh the benefits.

On the other hand, if one of our twelve active judges lived, worked and had chambers, let's say, in Iowa, and the other eleven were here, would that be a terrible problem? Probably not. So then, you have to guess—over time, how many would live and have chambers scattered all across the country? I don't know, but given the cost of living in Washington, compared to practically anywhere else, it would certainly be a strong incentive for people to not come to Washington. So, if the residency requirement were rescinded, I would expect more of our judges to have chambers elsewhere and to spend most of their days elsewhere.

Currently most Supreme Court justices are in the Supreme Court building most days. Most judges of the D.C. Circuit are in the D.C. Circuit courthouse most days. And most Federal Circuit judges are in the Federal Circuit complex most days. I think in all three cases that is highly appropriate. How to assess this

depends on what set of assumptions you make, but if I make the assumption that over time most of our judges would be living and working elsewhere, I think the net impact of that change would be negative, not positive.

RADER: Oh, I'm going to get in trouble here with members of my court. As you may know, the majority of the court seems to like the Baldwin Rule. It does provide us some marvelous advantages. We're all here in the same building, we live in the same neighborhoods and we know each other. That closeness we've developed helps us keep our jurisprudence noncontentious.

But the Baldwin Rule has a downside too. It tends to narrow the pool of potential candidates to those who can either live here or can easily leave their lives and re-establish a life here. That's a pretty narrow pool. So, I think there's an advantage to the Baldwin Rule. In the end, however, I may regret this because, as Chief Judge, I may have to deal with trying to maintain the court's continuity with judges who live outside of Washington. Nevertheless, I'm willing to try that for the potential benefits of a wider pool of very qualified individuals for upcoming openings on the court.

MIB: In one respect, the Federal Circuit is more similar to the Supreme Court than to other courts of appeals because the jurisdiction of the Federal Circuit is national. Related to that, the Court has sat by designation in various cities over the years. Is that something you hope continues?

RADER: Yes, we have an informal policy of trying to do that at least once a year. We sometimes do it twice a year. It's authorized by our statute, actually and so I do think it has the advantage of exemplifying our national court of appeals status. If we are a national court, there's great value in us sitting throughout the nation. We've tried to sit in nearly every circuit and I think we've achieved that.

MICHEL: Oh sure, when I arrived in 1988, the court for years had been sitting every single year in other cities around the country. It continued the whole twenty-two and a half years I've been on the court. I have every reason to expect it will continue, and I think it should. There's already planning underway to sit in Atlanta next fall. We sat recently in Houston, as you know, and also in Chicago, Palo Alto, Manhattan, and Los Angeles. If budgets permit, it would be advantageous to sit elsewhere twice a year and not just once a year, which has been our norm recently. We have a great chance to sit at local law schools and help educate people about our court. We have a great chance to mix it up with the local bar, which is very helpful. And we almost always have a long, informal, frank discussion over lunch with the district judges in the local areas, which is very beneficial, just as it's been beneficial to bring judges here for every argument week in the last three and a half years. We've had upwards of fifty district judges who sat with us here on our cases.

MIB: Would you care to share any thoughts on your favorite part of being a judge for over two decades?

MICHEL: Working with law clerks is very high on the list. You end up developing a relationship with most of your law clerks. It's almost like being family. They are sort of like nieces and nephews, and that is an absolute joy. The day-to-day work with the current law clerks is very invigorating and inspiring, and the young men and women who come to clerk are just fabulous people and also fabulous lawyers. That's a great pleasure.

I enjoy working with the other judges immensely. I like every stage of the process, although I wish briefs were shorter and more selective. The oral argument phase is fun; the opinion writing phase is fun. It is a fabulous job. I've enjoyed every single day of it. I always imagined I'd stay here until I was carried out of the courthouse at the age of 90 in a pine box. I changed my mind mainly because I want to be able to speak out more openly about public issues, political issues, the future of the patent system, and so forth. But I've absolutely loved being a judge. I like every part of the process. I tell young lawyers if the President calls you up and asks if you want to be appointed as federal judge, just tell him "YES!" You'll love it.

RADER: My favorite part—I guess just the opportunity I have to associate with so many intelligent and well-meaning people, both as colleagues and in our bar. There are a lot of talented people who are all seeking the best in the country through the legal system, and it's a great reward to be part of that.

MIB: From my perspective, when I worked here as a clerk, one thing I was impressed by was each judge's substantial workload and intense work ethic. Are those aspects something practitioners and the public don't fully appreciate or realize?

RADER: Now, you're starting to meddle into my private life. I was here until 11 o'clock last Monday night on one of those Texas district court cases. I suppose the attorneys are complaining more than I am, but we had a long session. But we owe it to them. We owe it to the public. This is our great opportunity to help resolve disputes, and I am proud of our court. The court as a whole does it very diligently.

MIB: Chief Judge Michel, regarding the hundreds of opinions you've written over the years and in view of your upcoming retirement, if someone wanted to summarize your jurisprudence, your approach to deciding cases, what would it be?

MICHEL: Balance, balance, balance. Trying to balance the competing, conflicting goals of each of the areas of law within the court's jurisdiction, including patent law. It's like golf. The right place to be is in the middle of the fairway—not at one extreme, the rough on the right, and not at the other extreme, in the rough on the left. I have always tried to optimize getting the balanced approach. I think the other judges have a similar view, but for me, that's sort of the guiding principle. That's the compass I try to navigate by. ■

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Adequately Funding The USPTO: A Critical Problem That Must Be Solved

As the 111th Congress considers patent reform, one of the fundamental problems facing our lawmakers is how to adequately fund the USPTO. The problem can be crystallized by referring to a single sentence in the final 2010 appropriations bill passed by Congress:[2]

> "The decision to rely solely on fee income has removed USPTO from the safety net of the appropriations process and has placed it at the mercy of the economy; it has allowed USPTO to build a boom time infrastructure that it cannot support in an economic downturn."

The 2009 and 2010 budget cycle is a case study in confirming the Appropriators' statement. In 2009, Congress appropriated $2.01B to the USPTO *provided* that amount was collected in user fees. With a growing backlog of unexamined patent applications and Information Technology (IT) systems in serious need of repair, the USPTO began hiring patent examiners and working to improve IT systems under the assumption that the fee collections would materialize. Additionally, the previous several years were a "boom time" in terms of increasing fee income and full access to that income. The USPTO was able to build up the patent examining staff from roughly 3,500 examiners in 2005 to over 6,000 examiners in 2008 in an attempt to reduce the backlog of applications. Obviously this increase in staffing caused a substantial increase in expenditures (examiner's salaries). This was the "boom time" infrastructure referred to by Congress.

Over roughly the same time the USPTO was building up examining staff, the traditional percent of applications that were allowed as patents dropped sharply. As can be seen in Figure 1, there was a dramatic drop in allowance rate from the previous 30-year average of 60-70% to 42%.

One impact of the drop in allowance rate is that the base of issued patents on which maintenance fees are due was not increasing. The USPTO relies heavily on the payment of maintenance fees from patent owners to subsidize the examination of newly filed applications. The use of a maintenance fee system allows the USPTO to keep filing fees low (below the actual cost of examination) so that innovators can seek patent protection relatively inexpensively and those patent owners who do receive patents subsidize the process for others. Post-allowance fees account for over 50% of the USPTO revenue. Figure 2 illustrates the huge gap that developed between the number of new applications being filed and the number of patents being issued resulting in a relatively smaller base for maintenance fee collections.

Then the 2009 economic downturn hit. Corporate IP budgets were frozen or cut and hard choices had to be made. Industry had to decide whether to file fewer new applications or let some applications in their patent portfolio lapse by not paying maintenance fees. This economic downturn, coupled with the reduced allowance rate and smaller base on which maintenance fees were due, caused a $136 million shortfall in collections in 2009. Hiring stopped, IT infrastructure improvements stopped, and Congress was forced to pass emergency legislation allowing trademark fee collections to fund patent expenses to avoid patent examiner furloughs.[3]

> The USPTO relies heavily on the payment of maintenance fees from patent owners to subsidize the examination of newly filed applications.

As the 2010 budget year approached, the USPTO estimated 2010 fee income would be $1.88

1. Mr. Godici is the former Commissioner for Patents (2000-2005) at the United States Patent and Trademark Office (USPTO). He also served as Acting Under Secretary of Commerce for Intellectual Property and Director of the USPTO from January 20, 2001 to December 2001.
2. House Report 111-366, Appropriations Act, at 620, (2010).
3. This safety net legislation was never triggered because of further spending cuts implemented in the patent process.

Figure 1.
The Patent Allowance Rate by fiscal year. The Allowance rate is defined as the number of allowances in the year as a percentage of all disposals in that year.

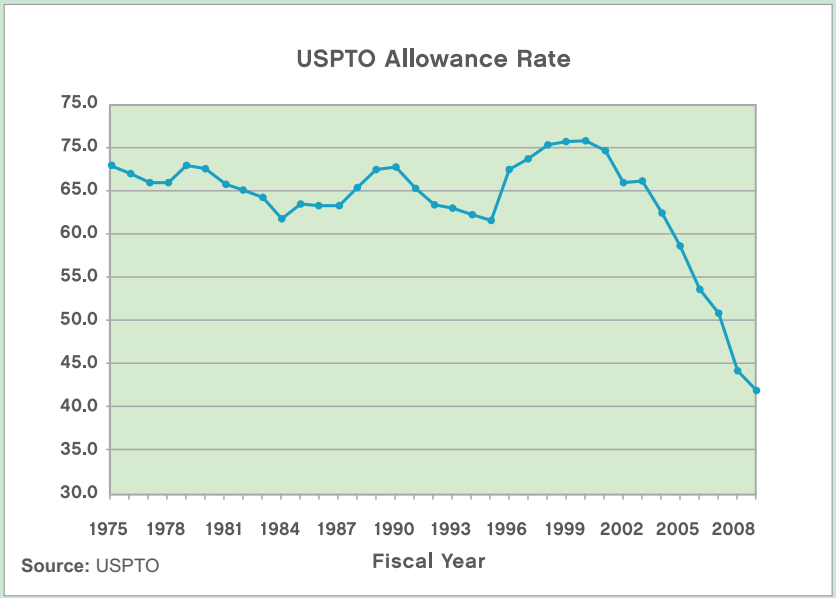
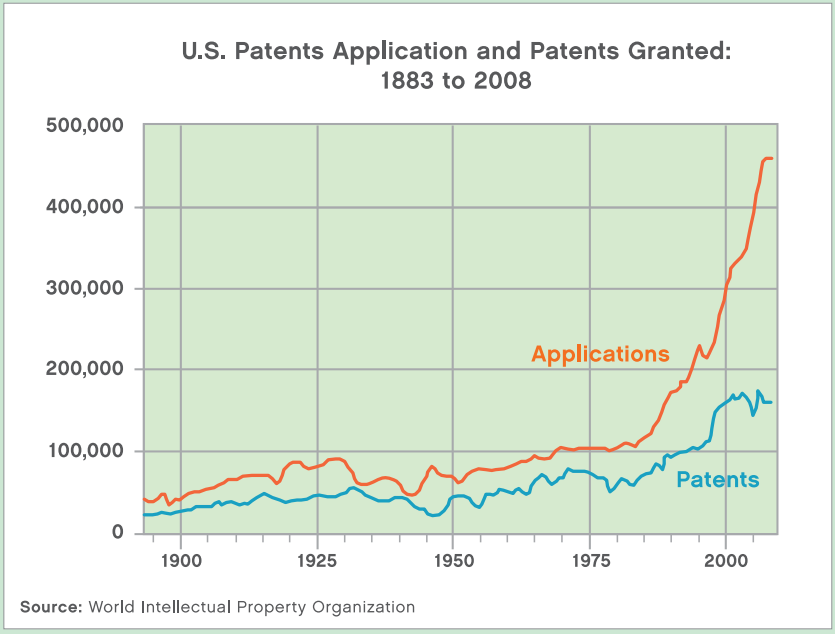


Figure 2.
Number of U.S. patent applications and patent grants by calendar year.



billon or just slightly more than the actual collections in 2009. Congress enacted the 2010 appropriations bill at the $1.88 billion level. As the economy picked up in the fall of 2009 and into 2010, it now appears that the USPTO may collect in excess of $200 million above the appropriated amount. This $200 million in user fees collections will not be available to the USPTO and it appears that "fee diversion" may be an actuality again in 2010. It is likely that over $200 million in fees paid by patent applicants and patent owners will not be put to use by the USPTO. In the past, fee diversion has been referred to as a tax on innovation.[4]

These circumstances that have developed over the last several years point out the flaws in the current user fee funding model at the USPTO. The uncertainty associated with the appropriations process, the inability to adjust fees to match the actual cost of the examination process and the substantial reliance on maintenance fee payments to subsidize the examination of newly filed applications have created something of a "Ponzi-esque" system. Because of the huge backlog of unexamined applications, fees that are paid today are used to fund the examination of applications that were filed 2-3 years ago. The substantial reliance on downstream maintenance fees to fund current work adds to the problem.

What solutions are being considered by Congress in the patent reform legislation? Both H.R. 1260 and S. 515 include a provision that would allow the USPTO to set its own user fees as opposed to the current law which requires

4. Over $700 million of USPTO user fees were diverted between 1991 and 2004 resulting in a backlog of unexamined patent applications.

Congressional action to adjust fees. The current provision in both bills would have considerable oversight and involvement by the public, the Patent Public Advisory Committee and the House and Senate Judiciary Committees. However, the USPTO would ultimately have the ability to adjust fees based on their analysis of the costs of providing their services. This is a big step in the right direction.

Of course the obvious question highlighted by the 2010 fee diversion reality is: will the USPTO be able to *keep* the revenue generated by any fee adjustment (increase) or will the income be diverted away from the USPTO? Neither H.R.1260 nor S. 515 addresses the fee diversion issue.

Additionally, initiatives to improve timeliness and quality of the patent examination process by hiring and adequately training examiners and rebuilding the IT infrastructure are not single year projects but multi-year programs. The USPTO needs to have multi-year funding through a revolving account to build an operating reserve so that multi-year improvement plans are assured of funding and the "Ponzi-esque" funding model is ended.

The original drafters of our Constitution recognized the benefits of the patent system; to encourage innovation and economic growth through the incentives that patents offer. The United States has led the way in innovation and economic growth, in my opinion, based at least partly on our patent system. The users of the patent system are willing to fund a healthy, well-run USPTO through user fees, *provided* the services paid for can be delivered and the fees are not diverted away from USPTO use. Let's not allow the patent system to suffer from inadequate funding when it can easily be self-supporting. We must find a way to allow industry to support the patent system that rewards them for research, investment and innovation. ■

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Patent Reforms Must Focus On The U.S. Patent Office

INTRODUCTION

As aptly explained elsewhere in this Special Issue, much patent law reform has already taken place during the last five years in the courts.[2] Many of the remaining alleged problems with the patent system have administrative solutions within the operations of the U.S. Patent & Trademark Office ("USPTO" or the "Office") and would likely not have developed had the USPTO been functional and timely in granting quality patents. It is imperative that USPTO operations be the focus of any patent "reform": no reformed statutory scheme can work well if the USPTO doesn't. For the most part, dysfunction at the USPTO stems from long-term failure to invest in our nation's patent examiner corps and the infrastructure that supports their important work.

Reforms should focus on two areas: quality of issued patents that should not issue, and erroneous rejection and backlog of non-issued patent applications that should issue. The growing unexamined application backlog is a great damper on innovation. Pendency at the USPTO has grown to the point that four out of five granted patents have compensatory patent term adjustment due to USPTO's failure to meet the time goals set by Congress. Irregularities in examination procedure and administrative rulemaking have plagued the Office, resulting in successful legal challenges against the Office and causing costly distractions for the Office and the patent community. This article reviews the necessary augmentation of the patent examiner corps capabilities, the current practices at the USPTO that gave rise to significant dysfunction in its examination operations, and suggests some specific areas for reform.

MASSIVE STRENGTHENING OF USPTO EXAMINER CORPS CAPABILITIES IS REQUIRED

The Examiner Force: Much has been written about the shortfall in the number of well-trained examiners due to substantial attrition of experienced examiners, leaving a corps dominated by examiners with no more than three years of experience. To a significant extent, this attrition is due to the Office's chronic inability to spend the funds it collects in user fees, either for salaries or for long term infrastructure investments.[3] This misbudgeting, in turn, arises from the USPTO's historic failures to correctly model[4] and project its workload.[5] The Office is limited in the pay levels it can offer examiners, making it harder to recruit and retain them.

- First, additional funds must be appropriated so that the USPTO can pay examiner salaries that are competitive with similarly-educated and skilled specialist professionals in the private sector.
- Second, it is imperative that we recognize that basic changes in examiners' working conditions, production goals and incentives are required to ensure that examiners have adequate time for examination.
- Third, in order to develop and retain the expertise in the examining corps, it is essential to provide examiners with more non-examination time for continuing professional development, in the same way that their peers do: reading the technical literature and attending technical trade shows.

The examining corps expertise should rest on two "pillars": examiners should first be scientists, engineers or technical experts in their art area, and second be specialists in patent examination procedures. While some examiners currently fit both of these "pillars," the USPTO today lacks the resources to ensure and foster the former.

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2. Matthew J. Dowd, Conversations with Two Chief Judges. *Medical Innovation & Business Journal*, this issue pg. 60 (2010).
3. Nicholas P. Godici, Adequately Funding the USPTO: A Critical Problem That Must Be Solved, *Medical Innovation & Business Journal*, this issue pg. 73 (2010) (discussing the diversion of user fees).
4. Ron D. Katznelson, My 2010 wishes for the U.S. Patent Examiner, (January 8, 2010). Available at http://j.mp/RDK-2010-wishes. (See pages 12-13 discussing USPTO's failures and its refusal to disclose its flawed pendency model).
5. This continues to this day. For example, during its board of appeals' first annual conference on April 7, 2010, the USPTO continued to insist that it will be able to adequately staff the new Post-Grant Review provision of Patent Reform. A number of audience members, including two federal judges, asked specific questions about how the USPTO would create the necessary procedures and handle the caseload. The USPTO's only substantive answer was that the USPTO would ensure it would handle the load during the first four years, because the USPTO would exercise its right to limit the number of post-grant reviews. However, by silence, the USPTO conceded that it had no reason to believe it would be able to match personnel to load after those four years, and had no plans for how to do so without draining essential staff from elsewhere.

Work goals for U.S. patent examiners require them to examine more than twice as many applications as their European counterparts.[6] EPO examiners spend more non-examining time during their work day on specialized PCT search services, more time for better prior art searches and professional reading, and more time to think and be correct before rejecting an application. The USPTO must have sufficient funding to give examiners time to do their jobs. As importantly, the USPTO must be able to pay U.S. examiners for the time it takes them to maintain their proficiencies and status, and knowledge of their technological fields. This, in turn, should help to increase their retention. An important additional component for accomplishing this is to ensure that expertise in technical fields is built within the Office. The Office must restore the robust prior art search functions to the examiner corps and reduce contracting out such prior art searches as a regular way of doing business.[7] It will also enable the USPTO to gain market share in international PCT search services, with all the concomitant benefits entailed,[8] including revenue support for a larger examining corps. Finally, another important component in improving examiner corps efficacy is the proper alignment of examiner quality measures and incentives with the social costs of patent examination errors, as discussed further below.

The Patent Classification System: A classification system is a way to arrange technical documents, patent applications and patents according to the technical features described therein. Think of it as a specialized relative of the Dewey Decimal Classification System or the Library of Congress classification. The classification system helps arrange documents so that documents that give specific technical answers can be quickly found when a patent application poses specific questions. It assists in quickly finding documents disclosing subject matter identical or similar to the invention for which a patent is claimed. The same document may be classified in several classes or subclasses. The classification system is an important examination quality tool, as it facilitates efficient search and identification of the most relevant prior art. Computerized keyword searches have their place, but are no substitute for an adequately-categorized library of prior art.

In the last decade, classification activity at the USPTO declined by two thirds, despite the continued exponential growth in new patent applications and other prior art to be classified.[9] The USPTO's apparent under-investment in the classification infrastructure of our national knowledge repository system is troubling. Ending the subdivision of classes and subclasses effectively allows classes and subclasses to grow and become coarser and to deteriorate. This detracts from the USPTO's ability to support applicants' and examiners' searches and the examination process. In addition, the degradation of classification weakens the key tools that examiners use, effectively weakening their end-result proficiency. The USPTO should restore the patent classification system to its important rightful place.

THE HARMFUL ASYMMETRY IN USPTO'S EXAMINATION POLICY

The USPTO is often criticized for insufficient quality of issued patents. But looking at only half the issue leads to short-sightedness and error. Patent application examination errors come in *two* types, erroneously allowing an application that does not meet legal patentability requirements, *and* erroneously rejecting an application that does. Both types of error result in consumer welfare losses as they create social costs for applicants, the USPTO, third parties and society as a whole. Many of the problems at the USPTO come from the USPTO's failure to consider the social cost of *rejection* errors.

Allowance errors receive more attention because they are more visible: a wrongly-issued patent is visible when the patentee asserts it in litigation or licensing, when it comes up for public ridicule, or when competitors must invest in unnecessary R&D to design around invalid claims, or simply gives up an innovation because of an erroneously-issued patent.

Costs of rejection errors are less visible, but no less real. Inventors bear the cost of additional Patent Office fees and attorney fees for applicants to seek USPTO correction of bad rejections by filing

6. Ron D. Katznelson, My 2010 wishes for the U.S. Patent Examiner, (January 8, 2010). Available at http://j.mp/RDK-2010-wishes (See Figure 3 at p. 6, showing that USPTO examiners complete an average of 65 applications per year as compared to 31 applications by an average EPO examiner).
7. U.S. Department of Commerce, Inspector General, *FY 2009 FISMA Assessment of the Patent Cooperation Treaty Search Recordation System*, PTOC-018-00, Final Inspection Report No. OAE-19731, at p. 1, (November 2009), available at http://www.oig.doc.gov/oig/reports/2009/OAE-19731.pdf. (prior art searches and patentability reports for PCT applications submitted to USPTO are performed by Cardinal IP, a private contractor).
8. Ron D. Katznelson, My 2010 wishes for the U.S. Patent Examiner, (January 8, 2010). Available at http://j.mp/RDK-2010-wishes (See Figure 2 and the accompanying text).
9. *Id.* (Classification activity as measured by the number of new subclasses established per year has declined from 4,000 to a third of that. See Figure 1 and accompanying discussion at page 3).

Requests for Continued Examination ("RCE")[10] and/or appeal briefs. Inventors bear costs of delays in obtaining patent protection they deserve, and in their loss of statutory rights (if the rejection succeeds). The USPTO bears the cost of doing work over when it was done wrong the first time, especially because the USPTO's error correction mechanisms require escalation to more-senior (and therefore scarcer) personnel. Costs of erroneous rejections fall on third parties: their investment opportunities are reduced when public notice of issued patents is delayed. Society as a whole bears costs if the applicant simply gives up fighting a wrongful rejection, or even if the wrongful rejection merely delays issuance of a patent to which the applicant is entitled: private investments and development of inventions are delayed, and inventors' incentives to disclose inventions and teach new knowledge and discoveries are reduced.

The legal and economic academy has spilled a great deal of ink on the first type of examination errors—allowance errors. Scholarly and media attention have amplified this inherent bias by focusing almost exclusively on erroneous allowances, but have been almost silent on erroneous rejections. Treatises and books on the social cost of "bad" patents, "questionable" patents, patents of "dubious validity," or the need to improve "patent quality" abound. While there is no doubt that there would be benefits to improved patent quality *ceteris paribus*, empirical statistical support for assertions that the USPTO issues "bad" patents is often based on fundamentally flawed studies.[11] These one-sided analyses fail to consider the costs that attempts to raise patent quality have inflicted on the economy, and totally ignore adaptive responses that businesses and investors have taken and will take if the suggested policies are implemented.

Why have well-meaning people so consistently ignored the relative costs of patent rejection errors? This is likely due to the fundamental asymmetry in the resulting ***observable*** impact of examination errors. Assertion of an alleged "bad patent" can result in public outcry from entire industries. In contrast, an erroneous rejection is only clearly visible to one party—the applicant—a party that seldom has any incentive to publicize its difficulties. However, the social costs of rejection errors, while largely invisible, have ripple effects: inventions are not exploited, start-ups may go belly-up and no one is left to tell the story. Other adverse effects include underinvestment in innovative research and disruptive advances, and overinvestment in incremental and less risky developments that require no new patent protection. Thus, the most-easily observable data have an inherent bias: allowance errors are reflected in bad things that happen, while rejection errors exert their greatest cost in good things that do not.

Nothing exhibits the degree of asymmetry in discourse more than the prevailing biased vocabulary on the subject. The most commonly used term is "***patent quality.***" However, rejected applications are not patents and a ***patent*** must have been issued for its ***quality*** to be evaluated. Thus, this term is strictly a measure of ***allowance*** errors. The term that should be used instead is "***examination quality***" because it is unbiased between allowance and rejection errors and because it correctly identifies the problem: ***examination***—not patents. It also more accurately reflects the USPTO's legal obligations: applicants are "entitled" to patents, and if on examination "***it appears***" that the applicant is entitled to a patent under the law, the USPTO "***shall***" issue them, unless the USPTO carries out its legal obligation to make a *prima facie* showing of non-entitlement.[12]

Some electronics and software manufacturers that found themselves losing patent infringement cases took partially legitimate concerns and disproportionately created massive "patent quality" lobbying campaigns that found their way into national editorials and congressional hearings. They also supported a few vocal university professors that focused on the harm associated with allowance errors. These campaigns have had substantial influence on public policy makers and on focusing USPTO operations solely on allowance errors, and to disregard rejection errors. Even the Federal Trade Commission was half-blinded: the FTC issued a report that focused only on the harm due to "questionable patents," and apparently used "balance" only in a word

10. RCE can be filed under 35 U.S.C. § 132(b) in an attempt to amend claims in order to overcome an examiner's final rejection based on new grounds or where an applicant and an examiner simply have not had an adequate exchange regarding the issues surrounding certain claims in the application. The USPTO considers an RCE a new application, although it preserves the serial number of its predecessor application.
11. Ron D. Katznelson, Bad Science in Search of "Bad" Patents, *Federal Circuit Bar Journal,* Vol. 17, No. 1, pp. 1-30, (August 2007). Available at http://works.bepress.com/rkatznelson/1/; *See also* Patrick A. Doody, What is A Bad Patent?, *Medical Innovation & Business Journal,* this issue pg. 21 (2010) ("If we cannot define a bad patent, we cannot expect to solve the problems such patents are alleged to have caused.").
12. 35 U.S.C. §§ 102 and 151; *In re Oetiker,* 977 F.2d 1443, 1445 (Fed.Cir.1992) (The U.S. Patent Office bears the initial burden of presenting a prima facie case of unpatentability, and until it does so, an inventor is "entitled" to grant of the patent).

for its title.[13] The USPTO Director established a policy that he would grant Director-ordered reexamination of patents if there were a "public outcry," which was readily supplied by those attempting to smear their opponents' patents and their "quality."[14] The unsupported argument was broadly made by these parties that lower allowance rate equates to higher patent quality. The USPTO (intentionally or unintentionally) created a default philosophy of rejection that resulted in plummeting application allowance rates. As I show below, the USPTO's enhanced rejection techniques have caused a substantial rise in final rejection error rates and has cost the public dearly.

This quality bias and asymmetry in USPTO operations has reached unprecedented levels in the last few years. In its quality control, the Office reviews more than 5,000 allowances per year to estimate and publish the allowance error rate (though strikingly the USPTO publishes almost nothing about how it gathers the data or analyzes it to determine allowance quality).[15] The USPTO does not publish, and apparently does not perform, any statistically significant end-of-process study of final rejection errors. The USPTO Manual of Patent Examining Procedure ("MPEP") provides for reopening prosecution only after the quality review program finds an erroneous allowance but not after erroneous rejection.[16] The Office's "second pair of eyes" review program applies only to allowances—never to final rejections. In examiners' merit reviews, erroneous allowances may lead supervisors to take adverse actions, whereas virtually no adverse actions are taken against examiners due to final rejection errors.

Academics suggesting remedies for the "patent quality" problem have been similarly biased towards allowance errors. Several scholars have proposed to remove the clear and convincing evidence standard for the presumption of validity under 35 U.S.C. § 282[17] because they believe that "too many" patents are issued improvidently.[18] Curiously, these proposals would leave intact the presumption of valid examiner rejections including the strong deference the agency receives on judicial review under administrative law.[19] If examination is not robust enough to warrant the presumption of patent validity,

The USPTO's enhanced rejection techniques have caused a substantial rise in final rejection error rates and has cost the public dearly.

13. Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (October, 2003), available at http://www.ftc.gov/os/2003/10/innovationrpt.pdf. (The term "questionable patent" used in the report is ill defined and the report appears biased in taking the side of the "questioner." The report uses the term "questionable patents" or patents of "questionable validity" 83 times and uses 5 times the term "bad patents," but refers only once to the fact that errors of the second kind—rejection errors–might occur.).
14. Sean A. Passino, Stephen B. Maebius and Harold C. Wegner, Re-examinations are ordered due to 'public outcry', *National Law Journal*, (May 10, 2004) p. S2, available at http://www.foley.com/publications/pub_detail.aspx?pubid=2084.
15. Notably, in its recent request for public comment on "Enhancement in the Quality of Patents", at 74 Fed. Reg. 65093 (December 9, 2009), the Office asks the public to comment on its current quality measures. The Notice mentions "Allowance Compliance Rate and In-Process Review" without giving the public any indication where information on these measures can be found. None appears available on the USPTO's web site. In response to Freedom of Information Act ("FOIA") requests for information on these reviews, the USPTO provided no meaningful information.
16. MPEP § 1308.03 ("If, during the quality review process, it is determined that one or more claims of a reviewed application are unpatentable, the prosecution of the application will be reopened.").
17. *Cf. SRAM Corp. v. AD-II Eng'g, Inc.*, 465 F.3d 1351, 1357 (Fed. Cir. 2006) ("Under the patent statutes, a patent enjoys a presumption of validity, see 35 U.S.C. § 282, which can be overcome only through facts supported by clear and convincing evidence.").
18. Doug Lichtman and Mark A. Lemley, Rethinking Patent Law's Presumption of Validity, 60 *Stanford Law Review,* 45 (2007); Alan J. Devlin, Revisiting the Presumption of Patent Validity, 37 *Southwestern University Law Review*, pp. 323-369, (2008); Fed. Trade Comm'n, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* 8-10 (2003), http://www.ftc.gov/os/2003/10/innovationrpt.pdf (calling the presumption "unjustified" and saying that the "burden can undermine the ability of the court system to weed out questionable patents"); Matthew Sag & Kurt Rohde, Patent Reform and Differential Impact, 8 *Minn. J.L. Sci. & Tech.* 1, 63 (2007) (recommending the preponderance of the evidence standard for initially granted patents but a higher standard for patents surviving post-grant opposition proceedings); F. Scott Kieff, The Case for Registering Patents and the Law and Economics of Present Patent-Obtaining Rules, 45 *Boston College Law Review*, 55 (2003) (advocated patent registration reform that removes the presumption of validity); Michael Abramowicz, & John F. Duffy, Ending the Paternity Monopoly, 157 *U. Pa. L. Rev.* 1541 (June 2009) (proposing a patent granting system employing private examination institutions conferring lower presumption of validity levels); *but see* Etan S. Chatlynne, The Burden of Establishing Patent Invalidity: Maintaining A Heightened Evidentiary Standard Despite Increasing "Verbal Variances," 31 *Cardozo L. Rev.* 297 (2009) (concluding that the presumption of validity - and the clear and convincing standard for establishing factual predicates of invalidity - should not be altered).
19. Applicants' burden in overcoming the deference the agency receives in its claim rejections is elevated to even higher levels of asymmetry by the "broadest reasonable interpretation" claim construction standard used at the USPTO. *See* Dawn-Marie Bey & Christopher A. Cotropia, The Unreasonableness of the Patent Office's 'Broadest Reasonable Interpretation' Standard, 37 *AIPLA Quarterly Journal*, 285-319 (July 16, 2009). Available at SSRN: http://ssrn.com/abstract=1434918.

what makes its fact-finding more reliable to warrant a presumption of a valid rejection?[20] Note also that many alleged examiner errors do not raise fact-finding questions, but are rather due to examiner failure to follow agency procedures or the law, which should receive no deference on judicial review, and should not be tolerated by the agency itself.

Despite some commentators' qualitative acknowledgement of the importance of social costs due to rejection errors, this author is unaware of any published discussion of the ***relative costs*** of allowance and rejection errors. The allowance-error-centric policy has perpetuated the status quo at the USPTO, as no guidance seemed forthcoming as to the degree of change that is required to balance the USPTO examination policy, procedures and incentives. To that end, a recent quantitative analysis by this author provides a definitive answer: ***rejection errors are more harmful to consumer welfare than allowance errors.***[21] It is not surprising that our patent statute is actually consistent with this notion: "The Director shall cause an examination to be made of the application and the alleged new invention; and if on such examination ***it appears*** that the applicant is entitled to a patent under the law, the Director ***shall*** issue a patent therefor." 35 U.S.C. § 131 (emphasis added). It is significant that the statute does not command: "and if on such examination it appears that the applicant is ***not*** entitled to a patent under the law, the Director shall ***deny*** a patent therefor." Unfortunately, USPTO operations are inconsistent with both its legal obligation to give the applicant the benefit of the burden of proof, or the economic reality that rejection errors harm society more than allowance errors.

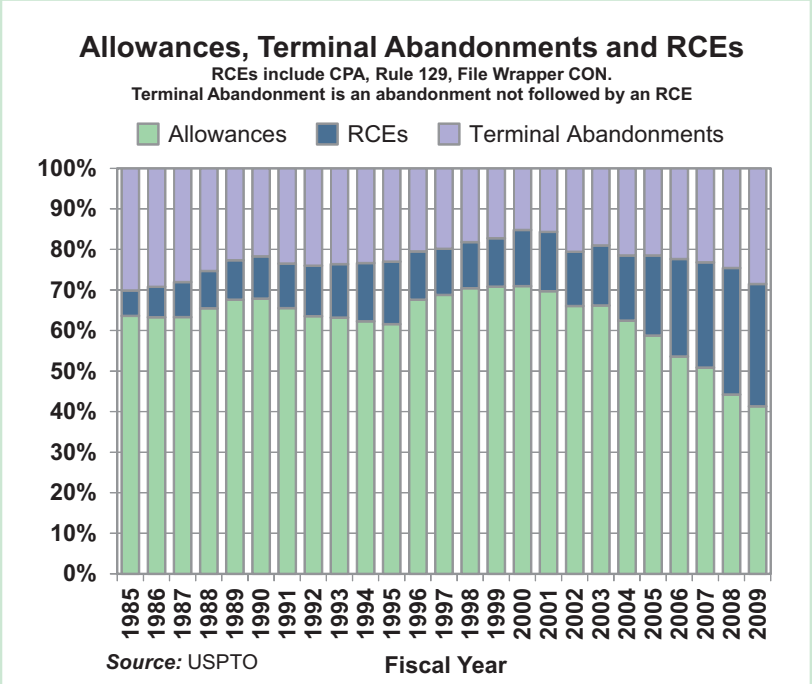
CONSEQUENCES OF USPTO'S ESTABLISHED CULTURE OF INCENTIVIZING REJECTION OVER CORRECTNESS

This first management error, focusing myopically on allowance errors and ignoring rejection errors, created pressures on the USPTO that gradually became cancerous, and then metastatic. Applicants know the law well enough to know when the USPTO's rejection is wrong, and seek correction and the patent protection to which the law entitles them. However, the USPTO's mechanisms for correcting its own errors are costly for the USPTO as well as for applicants, so rejection errors increased loads and costs for the USPTO. As loads on one part of the USPTO's error-correction apparatus after another increased past the breaking point, the USPTO apparently began to simply ignore the law as it sought ways to hold back the error-correction burden its own management attitudes had created.

USPTO's previous management often spoke of patent quality measures as synonymous with its allowance rate measures: that is, USPTO proclaimed to Congress, to the public, and to examiners that rejections are good, and allowances are bad. The precipitous decline of the allowance rate discussed in a companion article in this Issue[22] was touted by then-USPTO-management as evidence that the "quality" of patents had increased.[23] However these USPTO comparisons only presented allowance error rates and not rejection error rates. Clearly, no allowance errors will be incurred if the USPTO rejects all patents, but the probability of erroneous rejection will reach 100%. The importance of enhanced rejection techniques was communicated to examiners: many attorneys have described to me their experiences wherein examiners privately told them that their supervisors had directed them

20. One author who does address the allocation of relative deference accorded to USPTO in allowances and rejections argues that consideration and awareness of the significant institutional bias in favor of grants should overcome any strong presumption in favor of agency competence in the fact-finding associated with such grants. This consideration lacks factual support and is apparently derived through misapprehension of USPTO examination procedures. *See* Arti K. Rai, Allocating Power over Fact-Finding in the Patent System, 19 *Berkeley Tech. L.J.* 907 (2004) (Arguing at 911that examiners are "unlikely to deny even questionable applications" because of time shortages and because of examiners' prevailing bias in favor of granting patents – erroneously asserting that it is much easier for examiners to secure a final disposition by granting a patent than by denying one under the examiner incentive system (which, contrary to the assertion, counts both a final rejection and an allowance as a disposal); erroneously asserting at 917 that the examiner cannot provide evidence for the record about common knowledge in an industry, ignoring 37 C.F.R § 1.104(d)(2) and MPEP § 2144.03 that are specifically designed to permit examiners to rely on common knowledge and personal knowledge for entering examiner affidavits in evidence; arguing at 912 without support that when the USPTO denies a patent, "the fact-finding associated with the USPTO's analysis is much more likely to be accurate," an assertion that would not be shared by the experience of many patent prosecutors; and mischaracterizing rejections as the only type of agency decisions supported by evidence, ignoring the fact-finding role in allowances and in 37 C.F.R § 1.104(e), under which examiners may identify for the record the ***facts*** leading to an allowance.).
21. Ron D. Katznelson, "Patent Examination Policy and the Social Costs of Examiner Allowance and Rejection Errors," *Stanford Technology Law Review Symposium on PTO Reform*, Stanford, CA. (Feb. 26, 2010). Available at: http://j.mp/Examination-Quality; Ron D. Katznelson. "Comments submitted to the US Patent Office on enhancing the quality of examination" (March 8, 2010), at Section I. Available at http://j.mp/Exam-Qual-Comments.
22. Nicholas P. Godici, Adequately Funding the USPTO: A Critical Problem That Must Be Solved, *Medical Innovation Business Journal*, this issue pg. 73 (2010) (See Figure 1).
23. John Love, *Present and Future Perspectives of the USPTO*, presented to the San Diego Intellectual Property Law Association, (June 6, 2007). See Slides 7-9. Available at http://www.sdipla.org/resources/SanDiego071.ppt.

Figure 1.
Relative share of allowances, RCEs and terminal abandonments in USPTO utility patent application disposals.



to reject applications, or would not permit them to allow cases despite cogent and convincing showings of patentability because the supervisor's allowance rate would not be low enough. USPTO examiners had a running joke, that the USPTO was putting the "***NO***" in "IN***NO***VATION."

The statistics of declining allowances published by the USPTO do not tell the full story of the USPTO's "reject, reject, reject" policy. Over the last few years, information obtained through FOIA requests and through administrative record discovery in lawsuits against the USPTO revealed the true effects. Upon an examiner's final rejection, an applicant has three options: (a) accept the final rejection and terminally abandon the application; (b) appeal to the Board of Patent Appeals and Interferences ("BPAI"), an agency administrative patent law tribunal within the USPTO; or (c) file an RCE, a procedure under which an applicant pays a fee in order to obtain further opportunity to negotiate claim amendments with the examiner. Thus, an application disposal can occur in one of three ways: by allowance, by filing an RCE (after final rejection and a technical abandonment of the predecessor application), or by terminal abandonment. Figure 1 shows the relative share of these three possible disposal outcomes at the USPTO over the last 25 years.

Note that as the USPTO's enhanced rejection techniques depressed allowance rates, terminal abandonments increased only slightly because applicants apparently did not yield, but instead pursued their legal rights using the RCE procedure and appeals. Thus, by increasingly issuing unwarranted or premature final rejections, examiners often induced a shift of substantive examination to the RCE phase. In effect, enhanced rejection merely *delayed* ultimate allowance and increased costs for both applicants and the USPTO, with only little change in ***actual*** allowance rates.

This is clearly shown in Figure 2 for the very class of RCEs that the USPTO had attempted to suppress in rulemaking limiting the filings of second or later RCEs. Fortunately, a federal district court enjoined the USPTO from implementing these rules.[24]

A remarkable aspect of the data in Figure 2 is that aggregate allowance rate of second or later RCEs appears nearly a mirror reflection of the application allowance rate, indicating an "exchange" wherein allowances of the former application type complement allowances of the latter, making-up for some of the rejections.

Increases in RCE filings were not the only costly consequences of the USPTO enhanced rejection techniques. Rejection errors also dramatically increased, forcing a huge increase in appeals to seek correction of the USPTO's rejection errors. What Figure 1 and Figure 2 do not show, is the other important component in the fate of finally-rejected patent applications—applications for which appeals are filed and are subsequently circulated back to the examiner corps, adding to the

24. *Tafas v. Dudas*, 541 FSupp.2d 805 (E.D.Va. 2008).

ballooning backlog of pending applications.

Figure 3 shows the number of appeal briefs filed and the number of appeals that actually reached the BPAI. While the number of appeal briefs filed has quadrupled in recent years, the number of appeals reaching the BPAI has not increased much. The gap between the upper and lower curves reflects the result of a review by the Pre-Appeal Conference panel including the examiner, the examiner's supervisor and another peer examiner. This gap between the two curves corresponds to the number of cases in which the examiner's rejection lacked even the minimal merit to warrant allowing the appeal to go forward to the BPAI. For these cases, the USPTO summarily vacates the examiner's decision and the application is either allowed or circulated back for further prosecution on other grounds of rejection. The large increase in the gap between the curves of Figure 3 directly shows the large increase in rejection error rate from the USPTO's enhanced rejection techniques, and the costs that this imposed on both applicants and the USPTO itself.

As part of its attempt to put a thumb in the holes that the USPTO itself drilled in the dike, the USPTO attempted to curb appeals by doubling or tripling the costs to inventors of filing appeals, and limiting their ability to make proper showings of patentabilty.[25] After a significant challenge under

25. USPTO, *Rules of Practice Before the Board of Patent Appeals and Interferences in Ex Parte Appeals*, Proposed Rule, 72 *Fed. Reg.* 41472, (July 30, 2007); USPTO, *Rules of Practice Before the Board of Patent Appeals and Interferences in Ex Parte Appeals,* Final Rule, 73 *Fed. Reg.* 32938, (June 10. 2008).

Figure 2.

Allowance rate of applications and second or later RCEs.

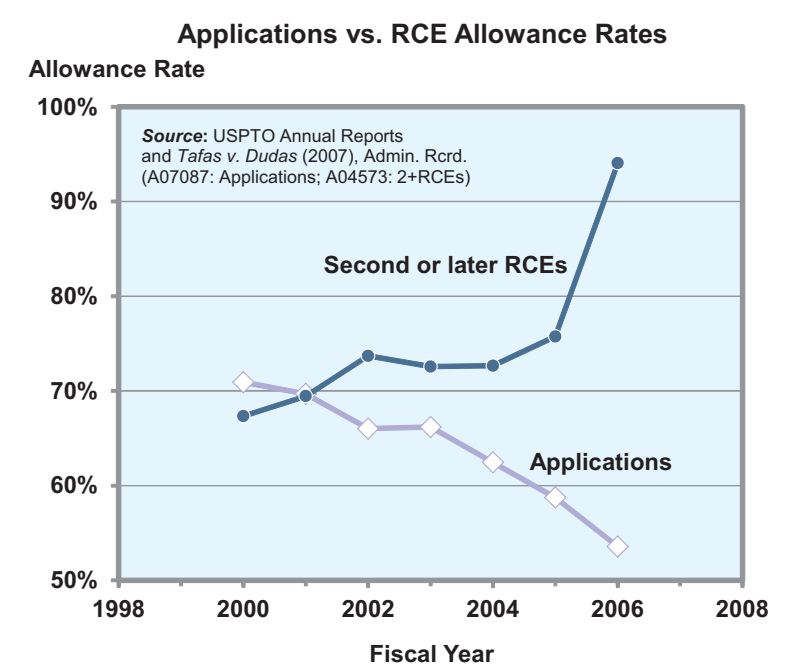


Figure 3.

Appeal briefs filed and those reaching the BPAI after the Pre-Appeal Conference.

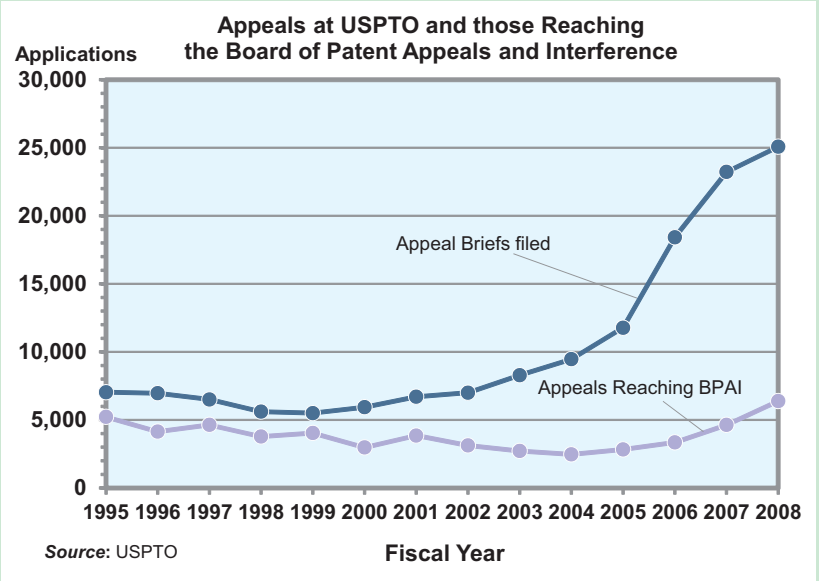
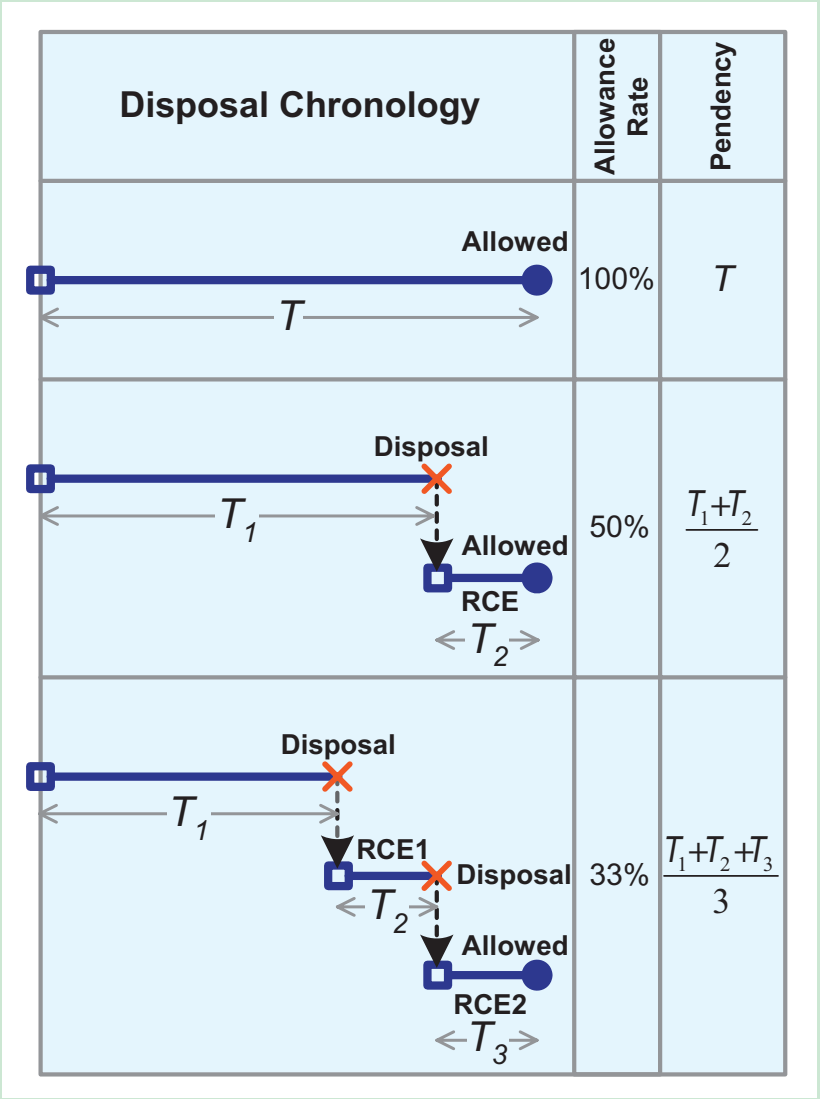


Figure 4.
The actual effects of RCE filings on USPTO reported allowance rate and reported average pendency.



the Paperwork Reduction Act by Rick Belzer, David Boundy and this author,[26] the White House Office of Management & Budget ("OMB") refused to approve the paperwork burdens in the new appeal rules and forced the USPTO to withdraw them on the morning they were to go into effect.[27]

It appears that the misdirected incentive structures at the USPTO have had additional powerful and perverse effects. Management's performance reviews and goals were apparently tied to "quality" measures such as allowance rate and to average pendency. For years, the definitions of these metrics were conveniently skewed to reflect more favorable results. In recent years, the skew became more extreme due to increasing examiner incentives to reject and shift substantive examination to RCEs. Figure 4 shows the effect of increasing the relative filings of RCEs on USPTO ***reported*** metrics.

Because the Office considers an abandonment followed by an RCE an application "disposal" (shown as × in the figure), and because it counts each RCE as a distinct application with pendency measured from its filing date rather than the initial application's filing date, the average pendency reported by the USPTO is substantially shorter than the real pendency. For example, consider the application shown at the bottom of Figure 4, which is finally rejected after say 32 months (T_1 = 32), followed by a cascade of two RCEs, prosecuted for, say, 8 months each ($T_3 = T_2 = 8$) until an ultimate allowance. Excluding publication delay, a patent will be granted after a pendency of 48 months. However, the weighted contribution of this application chain to USPTO's calculation of overall ***reported*** average pendency would only be 16 months. This deceptive metric is matched only by another perverse distortion of the average allowance rate metric. Because the USPTO regards abandonment in favor of a subsequent RCE as a disposal, it regards this example as having three disposals with only one allowance, resulting in a weighted contribution

26. Ron D. Katznelson, *Comments submitted to OMB under the Paperwork Reduction Act on US Patent Office appeal rules*, (November 17, 2008). Available at http://bit.ly/Appeal-ICR-Comments.
27. See http://www.uspto.gov/main/homepagenews/2008dec10.htm .

to the overall ***reported*** average allowance rate of only 33%. Counting RCE disposals as distinct for purposes of ***Office level*** overall metrics is not only counterfactual, but it also violates USPTO's own published directives that RCEs do not count as disposals for Office level performance measures.[28] The growing share of RCEs exacerbated the Office's misreporting of both average pendency and allowance rate: the reported 35 months in 2009 highly understates the actual average pendency, and the USPTO remarkably understates its allowance rates.

A further possible structural perverse incentive at the USPTO to "transfer" substantive examination into induced RCEs is rooted in another disturbingly rising metric that the Office does not disclose despite it being the only statutory criterion for pendency. Normally, prosecution delays due to the USPTO in initial applications may entitle applicants to compensatory Patent Term Adjustment under 35 U.S.C. §154(b), ("PTA"). However RCE prosecution time of any duration is excluded from applicants' PTA credit[29] and by inducing an RCE, the Office can continue substantive examination while "stopping the clock" on its PTA debt to the applicant.

Clearly, the "decreasing" allowance rate and the understated average pendency are largely illusions created by manipulating or distorting metrics, and the metrics are further skewed by the perverse "reject, reject, reject" incentives that former USPTO management gave examiners. The record shows that previous USPTO management's actions have inflicted unprecedented harm on U.S. patent applicants. Strong corrective action must now be taken.

SOME RECOMMENDED USPTO REFORMS

The problems described above developed under prior USPTO managements. Since assuming his new post as the Director of the USPTO, David Kappos began making significant improvements and changes. Recent welcome developments under Director Kappos include the Office's decision to provide an additional two hours per application and expand non-examining time allotments for examiners such as examiner-initiated interviews and increased resources available for examiner certification. The Office has also begun reaching out to its former examiners in an effort to recruit them back. Director Kappos also articulated what should have been the Office's policy all along: "Patent quality does not equal rejection" and there is evidence that movement away from the excessive weight on allowance errors have started to take place. It is not enough, however, to merely attenuate examiner costs for making rejection errors. As further explained here, the Office should pursue a ***balance in weighing*** these errors with rejection errors. These important actions should be followed by an aggressive effort not only to increase the Office's force but also to build public confidence in the Office management's ability to project requirements and sustain the growth of the force. Additional important necessary reforms are detailed below.

Operational Metrics: USPTO management's "measurable organization and individual goals in key operational areas"[30] may have long been improperly implemented. Neither the office nor the Department of Commerce disclose the criteria and goals set out in the Patent Commissioner's annual performance agreement under 35 U.S.C. § 3(b)(2)(B), which provides for a performance bonus up to 50% of annual salary based on objective criteria. Do they match the USPTO's public policy goals as set forth by Congress, or are they merely criteria that happen to be easy to measure? Are they measured fairly and in a statistically valid way, or are they prone to manipulation of the bonuses? No one knows what these criteria are, because the USPTO does not publish them, and will not disclose them even in response to a FOIA request. These goals, no doubt, propagate down to middle management and to the examining corps. The Office should put the criteria and goals of this agreement to a Notice and Comment proceeding to ensure public participation in crafting sound criteria and goals that would correctly drive the incentive systems at the USPTO.

For example, *average pendency* should not be one of the "measurable organizational" goals, as it has been shown to be prone to short-term manipulation and have perverse effects, as described above. While average pendency can be a useful descriptor, setting any specific ***average*** pendency goal is arbitrary, as it has no direct connection with objective criteria that determine examination queuing stability. Most importantly, ***average*** pendency is ***not*** one of

28. MPEP §1705.III ("These same items [including RCEs] constitute the "disposals" for performance evaluation of examining art units and TCs. However, disposals at the ***Office level*** consist only of allowances and abandonments.") (emphasis added).
29. *See* §154(b)(1)(B)(i)
30. 35 U.S.C. § 3(b)(2)(B) ("The [patent Commissioner's] annual performance agreements shall incorporate measurable organization and individual goals in key operational areas as delineated in an annual performance plan agreed to by the Commissioners and the Secretary.").

the statutory pendency requirements. Rather, express statutory pendency goals are set forth in 35 U.S.C. § 154(b)(1)(A)(i) – First Office Action within 14 months; and 35 U.S.C. § 154(b)(1)(B) – Patent grant within 3 years. Therefore pendency goals must be tied to measures indicative of USPTO's ability to meet its statutory § 154(b) obligations. *i.e.*, PTA measures. To this author's best knowledge, the USPTO has yet to compile and publish such statistics. Another operationally relevant queuing stability metric which the Office should adopt is the queuing Loading Ratio—the ratio between the incoming application filing rate and the examiner corps' disposal capability. This measure should be compiled per workgroup, as it directly predicts whether the Office has sufficient resources to reduce the backlog.

Allowance rate should be eliminated as a "quality" proxy. The incentives it creates in every level of USPTO's management hierarchy only detract from high quality and efficient examination. *Allowance error rate* is only a partial measure of examination quality that must be augmented as described below. *Examiner production goal* metrics as currently implemented are problematic and substantial improvements are proposed next.

Balancing examination quality measures: In view of the analysis referred to previously (showing that rejection errors are more costly to society than allowance errors), it is recommended that the USPTO augment its end-of-process allowance error measures with end-of-process final rejection error measures and adopt a weighted examiner incentive system that adopts equal weights for allowance and rejection errors. Under such a system, USPTO policies must ensure that the consequences to examiners for making allowance errors should be no more adverse than making rejection errors.

Aligning allotted resources with examination burdens required to achieve acceptable examination error rates—A new Count System: Examination with finite resources cannot be made error-free. The USPTO should commence a thorough review and conduct statistical performance studies and measurements in order to design a better examiner production-goal system. The history of the examiner production goal system is described by this author in a recent article.[31] The system is based on an ad hoc 1966 consensus, but not on any objective measurements of the number of hours required to achieve acceptable level of errors in relation to application attributes. The article also shows evidence suggesting that, on average, the current examiner goal system fails to provide the minimum baseline examination time required in many technology workgroups ***regardless of technology.***[32] In particular, examiner performances in workgroups that are allotted an average of fewer than 25 hours per application appear unreliable, with a wide spread in error rates. These results are rather charitable to the Office because they contain no data on rejection errors. The article concludes that examiners do meet their production goals—but at the expense of quality. The current examiner production goal system has been recently described by Dabney Eastham.[33] While certain improvements were recently made, more fundamental changes are long overdue.

In recent comments on examination quality submitted to the USPTO, this author outlined a specific proposal for setting an improved examiner production system.[34] As a prerequisite, the proposal involves the institution of a composite measure of examination errors by equally weighing probability of allowance error and the probability of final rejection error. It calls for establishing a balanced examiner incentive system and measuring examination errors under various examination time-allotment constraints. From

> Clearly, the "decreasing" allowance rate and the understated average pendency are largely illusions created by manipulating or distorting metrics

31. Ron D. Katznelson, My 2010 wishes for the U.S. Patent Examiner, (January 8, 2010). Available at http://j.mp/RDK-2010-wishes. (See Section 2).
32. *Id*, Figure 6.
33. Dabney Eastham, Patent Examiners: The Performance Appraisal Plan System and the Count System Initiatives, Part 1, *New Matter,* Vol. 35, No. 1, pp. 19-31, (2010).
34. Ron D. Katznelson. "Comments submitted to the US Patent Office on enhancing the quality of examination" (March 8, 2010), at Section II. Available at http://j.mp/Exam-Qual-Comments.

such measurements, a method of deriving new art-unit targets of examination hours to be spent per application is described. Based on the measurements, a regression analysis is proposed to empirically establish the dependence of the required examination hours on application attributes by art-unit. It is proposed that the discovered dependency would be the basis of an application specific variable Count System.

Adopting Deferred Examination Procedures: In early 2009, the USPTO held a roundtable and had solicited public comments on the advisability and benefits for instituting an Examination On Request system, or what is often called Deferred Examination.[35] Commenting parties were generally supportive of adopting such a system, including this author, who submitted a detailed proposal and a model analyzing the workload savings.[36] The proposal described a legal framework that would permit the implementation of such a system under existing law without any congressional action. The model, attached as an appendix to the comments, estimated that workload savings of 15%–25% can be realized upon adoption of such a system. Unfortunately, it appears that the USPTO has done nothing for almost a year on this matter.

Improve compliance with Administrative laws: USPTO's rulemaking attempts over the last few years were no less than frontal assaults on patentee's rights and the rule of law. At least four rules packages that the Office attempted to promulgate were either enjoined by a federal court or stopped by OMB. The USPTO's commitment to the Administrative Procedure Act, the Regulatory Flexibility Act, the Paperwork Reduction Act, and Executive Order 12,866 and their guarantees of predictable agency procedure and protections against agency overreaching has been less than encouraging.

Fundamental reforms in the Office's core practices are also long overdue. In some circumstances, the MPEP and other published agency guidance have been knowingly used for years to circumvent plain statutory language and USPTO's own codified federal rules.[37] First, examiners cite the MPEP as if it were law against applicants. Second, when the MPEP uses mandatory language to specify examiner conduct, most examiners treat the MPEP as non-binding "ten suggestions." The USPTO persists in erring on both fronts. Under decades of administrative law, agency staff manuals are binding on the agency that issues them, but not on the public.[38] Over three years ago, the Executive Office of the President issued the *Final Bulletin for Agency Good Guidance Practices,* which reminds agencies of these statutory obligations.[39] The USPTO has simply ignored this order, apparently implementing none of its directives.

Third, the USPTO must enforce its own rules. For example, Chapter 2100 of the MPEP gives examiners sound instructions on examination that, if consistently followed by the USPTO, would vastly improve predictability and efficiency. Yet, the MPEP repeatedly states USPTO's refusal to enforce its written procedures: breach is "neither appealable nor petitionable."[40] This cannot be correct, as it contradicts 37 C.F.R. § 1.181(a)(1), which guarantees that any issue that is not "appealable" is necessarily "petitionable." The USPTO must amend the MPEP and assume management oversight over examiners.

When the USPTO fails to comply with the law, the legitimate expectations of applicants guaranteed by the administrative law are frustrated, and the examination-prosecution process breaks down. The pervasive breach of administrative law must be addressed by the new Director. An administrative law compliance observance program should be implemented to correct lax procedures. It could substantially improve the cooperative efficiency between the USPTO and applicants. ■

35. USPTO, *Request for Comments and Notice of Roundtable on Deferred Examination for Patent Applications*, 74 Fed. Reg. 4946, (January 28, 2009).
36. Ron D. Katznelson. "Comments submitted to the US Patent Office on deferred examination for patent applications", (May 29, 2009). Available at: http://works.bepress.com/rkatznelson/59
37. For example, under the statute and under USPTO's federal rules, "if two or more independent ***and*** distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions" (35 U.S.C. § 121; 37 CFR § 1.142). In contrast, the Office continues to enforce restrictions when inventions are "independent ***or*** distinct" per MPEP § 803. By the use of the conjunctive "and" rather than "or," the statute and the federal rule prescribe significantly narrower circumstances permitting restrictions. By contravening this plain language and relying on MPEP's "or" clause, examiners issue restrictions more frequently than permitted by law.
38. 5 U.S.C. §§ 552(a), 553 (describing steps an agency must take to bind the public—which the USPTO has not taken with respect to the MPEP); *Vitarelli v. Seaton*, 359 U.S. 535, 545 (1959) (when an agency acts contrary to its own rules, the resulting action is "*illegal* and of no effect."); *In re Kaghan,* 387 F.2d 398, 401 (CCPA 1967) (An applicant should be entitled to rely not only on the statutes and rules but also on the provisions of the MPEP).
39. Executive Office of the President, *Final Bulletin for Agency Good Guidance Practices*, OMB Memorandum M-07-07, http://www.whitehouse.gov/omb/memoranda/fy2007/m07-07.pdf (Jan. 18, 2007); 72 Fed. Reg. 3432 (Jan. 25, 2007).
40. *C.f.* MPEP §§ 2106(1); 2107(1); 2141; 2163, ("perceived failure by Office personnel to follow these Guidelines is neither appealable nor petitionable.").

By Charles E. Miller, Senior Counsel, Dickstein Shapiro LLP
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Attenuated Judicial Review of Patent and Trademark Office Decisions: "Technical Amendment," or Stacking The Deck Against Inventors?

"Upon what meat doth this our Caesar feed, that he is grown so great? . . . Why, man, he doth bestride the narrow world like a Colossus, and we petty men walk under his huge legs and peep about to find ourselves dishonourable graves. Men at times are masters of their fates: The fault, dear Brutus, is not in our stars, but in ourselves, that we are underlings."

— Wm. Shakespeare: *Julius Caesar*, I, ii, 148, 134

The March 4, 2010 "Managers' Amendment" of S.515[2], the Senate's 105-page version of the pending "Patent Reform Act of 2010"[3]—would, if enacted, do serious harm to the U.S. patent system by restricting a long-standing fundamental right of patent owners to seek judicial correction when the Patent and Trademark Office ("PTO") erroneously revokes a patent in a reexamination proceeding. Also, other rights of judicial review would be attenuated because the Managers' Amendment would transfer venue from a court that views federal agency decisions somewhat skeptically to a court that seldom overrules them.

The March 2010 Senate bill would do serious harm to the U.S. patent system by restricting a right to seek judicial correction of PTO errors.

I. COURT REVIEW OF PATENT OFFICE DECISIONS

A. Patent Reexamination

"Patent reexamination" is a proceeding in the PTO wherein the owner of a patent, or any third party,[4] files a request with the agency to re-evaluate the validity of one or more claims in the patent in light of published prior art cited by the requestor as raising a substantial new question of patentability of the patented subject matter. Reexamination may be either "*ex parte*" in which active participation during the prosecution phase is restricted to the patent owner and the PTO or "*inter partes*" in which the requester (always a third party) as well as the patent owner participate actively throughout the proceeding.[5] Increasing numbers of patents are being subjected to reexamination—both *ex parte* and *inter partes*. The choice of one or the other depends on when the patents were applied for and the party requesting reexamination.[6] Such proceedings have become a common feature in tandem with court enforcement litigation by which the patent owner, or the party challenging the patent, seeks administratively to validate or invalidate the patent(s)-in-suit, as the case may be, or on which the defendant seeks to base a motion to stay the litigation or to forestall an injunction.[7]

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2. 111th Congress, document GRA10134, http://judiciary.senate.gov/legislation/upload/PatentReformAmendment.pdf.
3. The current House version of the proposed Patent Reform Act of 2010 is H.R. 1260.
4. A third-party requestor is statutorily defined as "a person requesting… reexamination… who is not the patent owner." 35 U.S.C. § 100(e).
5. The history, similarities, and differences between *ex parte* and *inter partes* reexamination are explained further in K. Noonan, *Post-Grant Review of U.S. Patents: Will Past Be Prologue?* in this issue on pages 47–51.
6. Anyone may request *ex parte* reexamination; *see*, *supra* footnote 4. A patent owner may request *ex parte* reexamination of his or her patent, but not *inter partes* reexamination.
7. Nationwide, about 60% of all contested motions to stay U.S. district court proceedings pending reexamination of patents-in-suit are currently being granted. "LegalMedia Nationwide Report on Stays Pending Reexamination Decisions" (Sept. 2009). *See for example*, *E-Z-Go, et al v. Club Car Inc.*, Fed. Cir. Case No. 1-09-cv-00119 (2010) ("[T]he court is particularly mindful that were it to decide that the [patent-in-suit] is valid, such a finding is not binding on the PTO, and a contrary decision by PTO could result in a substantial waste of judicial resources").

B. Judicial Review of PTO Decisions

A patent applicant or the owner of a patent in an *ex parte* reexamination who is dissatisfied with the PTO's decision may seek review in either one of two courts.[8] In the type of cases relevant to this discussion, owners of patents in *ex parte* reexaminations[9] who are dissatisfied with Board rulings on examiners' rejections may seek judicial review by appealing directly to the U.S. Court of Appeals for the Federal Circuit under § 141 of the *Patent Act*.[10] Alternatively, patent owners can sue the PTO in the U.S. District Court for the District of Columbia under § 145.[11] If the patentee chooses § 145 District Court review, the losing party, be it the patent owner or the PTO, can subsequently appeal to the Federal Circuit.[12]

The availability of D.C. District Court review of PTO decisions in *ex parte* reexaminations is crucial in several respects. First, an appeal to the Federal Circuit is decided on a closed record, that is, neither side may present new evidence—the court will only look at the paper record that was compiled during proceedings at the PTO. In contrast, in D.C. District Court review of *ex parte* reexaminations, the parties—both the patentee and PTO—may adduce new evidence, for example, live testimony, new affidavits, new test results and the like. Second, a District Court action can involve a full trial before a judge (in the PTO, there is almost never an opportunity to present live testimony in a trial-type setting, so this may be the only time that certain evidence can be submitted to any tribunal). Third, the Federal Circuit gives great deference to PTO fact-findings and will reverse the PTO only if there is no substantial evidence supporting the PTO's decision. In contrast, the D.C. District Court reevaluates evidence and factual findings from scratch, called *de novo* review. Thus, if patentability turns on a determination of what was and what was not known at the relevant time, or an interpretation of the content of a prior art document or the like, then the plaintiff has two key advantages in D.C. District Court that are lacking in Federal Circuit appeals. The existence of this additional path of review thus serves as another check on the PTO and tends to promote accurate agency rulings.

> The availability of D.C. District Court review is crucial as a check on the PTO, and tends to promote accurate agency rulings.

The availability of two different jurisdictional routes of judicial review of PTO decisions has long been an accepted feature of the U.S. patent system.

C. The PTO Has Long Made Known Its Distaste for District Court Review

The PTO dislikes having to defend its decisions in District Court. As noted in the preceding section of this paper, the procedures in District Court make for a level playing field. Like all lawyers, the PTO's attorneys don't like to lose, even though their client is a government agency whose nominal goal is to see that the laws are faithfully executed, not to win cases, and one would think that their mission to see justice done would preempt their desire to build a favorable win-loss record. Also, because the PTO is sued in District Court less often compared to the frequency of appeals in the Federal Circuit, and many private sector IP litigators have as much experience in trial courts as they do in purely appellate settings, the PTO's attorneys do not necessarily have an advantage in District Court.

The PTO's historic aversion to civil actions in District Court was pointed out in *"To Amend Section 52 of the Judicial Code and Other Statutes Affecting Procedures in the Patent Office: Hearings on H.R. 6252 and H.R. 7087 Before the House Committee on Patents, 69th Cong., 1st Sess. 80-81 (1926)"* and discussed at length in Judge Moore's dissent in the recent case of *Hyatt v. Doll*.[13]

8. 35 U.S.C. § 141, second sentence; 35 U.S.C. § 145, first sentence; §§ 146 and 306 and 28 U.S.C. § 1295(a)(4)(A). Dual paths of court review are not unique to the PTO. For example, decisions of the Department of Agriculture involving plant variety protection certificates (7 U.S.C. §§ 2321-2582) may be appealed directly to the U.S. Court of Appeals for the Federal Circuit under § 2461 or by civil action against the Secretary of Agriculture under § 2462. Another such agency is the Internal Revenue Service (review by the U.S. Court of Federal Claims or by the U.S. Tax Court depending on whether or not the amount of the tax in dispute has been paid). 28 U.S.C. §§ 1346 and 1507. Also, contractor's claims under the *Contract Disputes Act of 1978* (41 U.S.C. §§ 601-613) may be appealed either to a tribunal within the Federal Board of Contract Appeals or to the Court of Federal Claims. 28 U.S.C. §§ 1346(a)(2) and 1491(a)(2).
9. 35 U.S.C. §§ 302-307
10. 35 U.S.C. § 306 and § 141
11. 35 U.S.C. § 306 and § 145
12. 28 U.S.C. § 1295(a)(4)(C)
13. *Hyatt v. Doll*, 576 F.3d 1246, 1280, 91 USPQ2d 1865, 1892-92 (Fed. Cir. 2009), *vacated and en banc rehearing granted sub nom. Hyatt v. Kappos*, Fed.Appx., 93 USPQ2d 1871 (Fed. Cir. 2010) (nonprecedential).

Given the PTO's hostility to the long-standing right of judicial review of BPAI decisions by trial *de novo* in District Court, the PTO's rulemaking and pronouncements in 37 C.F.R. § 1.303 and MPEP §1216(II) and § 2279 stand in irreconcilable conflict with 35 U.S.C. §§ 141, 145 and 306, and as such, constitute impermissible agency behavior. The principles of constitutional law and administrative law do not support the PTO's rulemaking effort to interpretively abrogate the specific statutory right to District Court review conferred by 35 U.S.C. §§ 145 and 306. Such rules and pronouncements should be judicially set aside as null and void.

II. THE MARCH 4, 2010 MANAGERS' AMENDMENT OF S.515—THE SENATE VERSION OF THE PATENT REFORM ACT OF 2010

A. The PTO's Sought-After Eradication of District Court Review of PTO Decisions in Ex Parte Reexaminations

The Managers' Amendment[14] would cancel the long-established statutory right of *de novo* review of decisions in *ex parte* reexaminations in D.C. District Court on an open record. Nowhere is this mentioned in the Senate Press Release accompanying the Managers' Amendment. What seems to be happening here is that the PTO is seeking, through lobbying and with little or no public fanfare, to put an end to an existing route of judicial review that, while odious to the agency,[15] has always been vitally important to parties appearing before it.[16]

The Managers' Amendment[17] subtly revises the statute that for many years has provided inventors with access to appellate court review of PTO decisions. One part of the Amendment reads:

> (b) REEXAMINATIONS—A party to a reexamination who exercises his right to appeal to the Patent Trial and Appeal Board pursuant [after an *ex parte* or *inter partes* reexamination] and who is dissatisfied with the final decision in that appeal may appeal the Board's decision only to the United States Court of Appeals for the Federal Circuit.

The current version of the statute[18] only covers *inter partes* reexaminations, and leaves the D.C. District Court trial *de novo* option available to patent owners in *ex parte* reexaminations.

The Managers' Amendment[19] would alter the Federal Circuit jurisdiction to synchronize it with the amendment set forth above, clarifying that the change is not an unintentional "typo", but a considered effort by the PTO to attenuate inventors' rights to protect their patents.

The Managers' Amendment[20] would retroactively implement exclusive Federal Circuit appellate jurisdiction (to the exclusion of the District Court) over the PTO decisions entered in all reexaminations "before, on, or after the date of enactment" of the Patent Reform Act.

B. Loss of De Novo District Court Review Would Leave Patentees With No Opportunity to Present New Evidence

Interactions among several existing and proposed provisions of PTO procedures create many instances in which District Court review is the *only* opportunity for a patentee to get a fair chance to correct a PTO error. Repeal of District Court review would deprive inventors of *ever* having a balanced opportunity to secure and preserve their patent rights.

Under current law, situations arise with some frequency in which District Court review is the only way an inventor has to rebut an error made by the PTO. For example, the Board has authority to raise new grounds of rejection on its own authority, at any time.[21] In such cases, the Board's written decision may be the first time the patentee receives any notice of the rejection. In other instances, because the PTO's stated policy is to refuse all requests for enforcement the PTO's written procedural rules against examiners during examination,[22] it is not uncommon that the first time an inventor receives a minimally-intelligible articulation of a rejection is in the Board's final written decision.[23] Under current law, District Court review may be the only timely option that an applicant has to rebut a PTO statement of a rejection.

The Managers' Amendment adds several new opportunities to sandbag applicants with new grounds for which District Court review is the natural error-protection

14. Amendment GRA10134 at page 65, § 6, "Patent Trial and Appeal Board," amending 35 U.S.C. § 6.
15. The PTO's dislike of District Court actions is discussed in section I.C. of this paper.
16. Noteworthy in this regard is the PTO's unsuccessful attempt in 2007 to insert into H.R. 1908, the immediate predecessor to the House version of the Patent Reform Act of 2009 (H.R. 1260), a Managers' Amendment by the bill's sponsor, Rep. Berman, a provision that would have altogether abolished trial *de novo* review under 35 U.S.C. § 145/§ 306 of BPAI decisions in *ex parte* reexaminations.
17. Amendment GRA10134, § 6(c), "Circuit Appeals," amending 35 U.S.C. § 141.
18. 35 U.S.C. § 141
19. Amendment GRA10134, § 6(c)(2), "Jurisdiction," amending 28 U.S.C. § 1295(a)(4)(A).
20. Amendment GRA10134, § 6(d), "Effective Date," amending 28 U.S.C. § 1295(a)(4)(A).
21. 37 C.F.R. § 41.50(b)
22. Patent and Trademark Office, Changes To Practice for Continued Examination Filings, Patent Applications Containing Patentable Indistinct Claims, and Examination of Claims in Patent Applications; Final Rule, 72 Fed. Reg. 46716, 46752 col. 2 (Aug. 21, 2007)
23. This appears to be the fact pattern in *Hyatt*, 576 F.3d at 1287-88, 91 USPQ2d at 1896-97.

mechanism but for its repeal. The Managers' Amendment[24] permits "any person at any time to cite [prior art] to the Office" with a written explanation for how the prior art should be applied to invalidate the patent. This submission may be anonymous, giving parties an opportunity to circumvent some of the protections in the reexamination statutes that protect inventors against "drip, drip, drip" attacks by competitors seeking to deprive the patentee of access to funding, rather than against bona fide challengers to the patents on the merits. Market incumbents recognize that a bankrupt insurgent competitor is an even better result than mere invalidation of the insurgent's patents. Then, the Managers' Amendment[25] lands the PTO's second punch, by amending the PTO's authority to order *ex parte* reexamination, even in absence of request from the public statute, based on the prior art submitted "at any time."

District Court review may be the only opportunity that an inventor has to make a case, supported by evidence, against rejections that arise through these new avenues of attack, and will often be the least of several evils. Repeal of District Court review will directly harm patentees, especially those that depend on their patents for survival.

C. Transferring Venue from the D.C. Federal District Court to the Eastern District of Virginia

Another part of the Managers' Amendment[26] that warrants the attention of the patent and trademark communities is Section 8 that deals with venue. In it, the PTO has successfully lobbied for the inclusion of subsection 8(b) under the seemingly innocuous heading of "Technical Amendments Relating to Venue." It would require all civil actions seeking *de novo* review of PTO decisions (including decisions of the PTO Trademark Trial and Appeal Board) to be brought henceforth in the Eastern District of Virginia instead of in the District of Columbia (as has been the right of patent applicants and patent owners in *ex parte* reexaminations since time immemorial).[27]

Such a venue change could hardly be considered a mere "technical amendment." While that suburban location would suit the PTO just fine, because it is literally across the street from the PTO, it is certainly less convenient for plaintiffs. Also, not surprisingly, the administrative law expertise of the D.C. courts is far and away the highest of any court in the country. Most administrative law practitioners note that the District of Columbia courts, because of this expertise, tend to give closer scrutiny to agency decisions and are more skeptical when federal agencies try to short-cut the procedural protections that their rules purport to give the public. Practitioners also note that the Fourth Circuit, the appeals court that covers Virginia, is perhaps the court that is most deferential to agencies. The PTO itself is well aware of this difference between the two courts: then PTO Solicitor John Whealan gave a speech in New York in 2001 in which he explained that the PTO recognized the importance of forum shopping between the District of Columbia and Virginia and that forum shopping had been the PTO's motivation in seeking the 1999 statutory amendment[28] to provide that the PTO "shall be deemed, for purposes of venue in civil actions, to be a resident of [the Eastern District of Virginia], except where jurisdiction is otherwise provided by law." The Managers' Amendment would henceforth route District Court reviews to the more PTO friendly and less expert courts in Virginia, and preclude appeals to the D.C. Circuit (whose administrative law jurisprudence is unparalleled) from District Court decisions not involving substantial questions of patent law.[29] Such appeals would have to go instead to the Eastern District of Virginia and to the Fourth Circuit in Richmond, VA.[30]

D. Will the PTO Seek to Abolish District Court Review—Jurisdiction Over Its Decisions in Patent Applications?

Because there are substantial procedural similarities between *ex parte* reexaminations and the prosecution of patent applications, if the PTO succeeds in its legislative effort to abolish *de novo* District Court review in *ex parte* reexaminations, then it probably won't be long before the agency will lobby for the abolition of *de novo* District Court review of rejected patent applications. Thus, the patent community now finds itself at a crossroads. If the Federal Circuit in its forthcoming *en banc* rehearing of *Hyatt v. Kappos*[31]—a

24. Amendment GRA10134, § 5(g)(1), "Citation of prior art and written statements," amending 35 U.S.C. § 301.
25. Amendment GRA10134, § 5(g)(2), amending 35 U.S.C. § 303(a).
26. Amendment GRA10134 beginning at page 72, § 8, "Venue," amending 35 U.S.C. §§ 32, 145, 146, 154(b)(4)(A) and 293 and 15 U.S.C. § 1071(b)(4); *see also* H.R. 1260 at Sec. 10.
27. The 170-year history of providing review in the District of Columbia Courts is set forth in *Hyatt*, 576 F3d at 1254-57, 91 USPQ2d at 1871-74.
28. 35 U.S.C. § 1(b) (1999)
29. The CAFC has exclusive appellate jurisdiction only over appeals from district court final judgments in cases that "arise under" the patent laws. 28 U.S.C. § 1295(a)(1). *Industrial Wire Products, Inc. (IWP) v. Costco Wholesale Corp.*, 576 F3d 1516 (8th Cir. 2009).
30. 28 U.S.C. § 1294(1)
31. *Hyatt v. Doll*, 576 F3d 1246, 1254-68, 91 USPQ2d 1865, 1871-85 (Fed. Cir. 2009), *vacated and en banc rehearing granted sub nom. Hyatt v. Kappos*, __ F3d ___, 93 USPQ2d 1871 (Fed. Cir. Feb 17, 2010) (nonprecedential).

case involving the prosecution of a patent application, rather than a reexamination—does not alter its panel decision, then the purpose of § 145 to provide a District Court *de novo* alternative to appeals to the Federal Circuit under § 141 would be undercut, as Judge Moore warned in her dissent in the court's panel decision.[32] If that happens, it will embolden the PTO in its campaign to achieve by a legislative salami tactic that, which until now, has been beyond the reach of the agency's own rulemaking authority.

III. CONCLUSION

The PTO's interpretative rulemaking and legislative lobbying on Capitol Hill reveal the agency's ultimate goal of limiting the ability of patentees to seek correction of erroneous PTO decisions, thereby insulating BPAI rulings from meaningful review. Board decisions would be subject only to a deferential "substantial evidence" standard of review. The PTO would accomplish this by first abrogating as a heretofore *meaningful* recourse the fundamental right of patent owners in *ex parte* reexaminations to seek judicial review of adverse decisions of the BPAI *either* by civil action in the District Court *or* by appeal to the Federal Circuit. This is what the PTO is now seeking to do.

Because the PTO is now attempting to circumvent current statutory provisions by abolishing civil actions in *ex parte* reexaminations altogether through legislation that will have catastrophic consequences, such legislation should be stricken from the current Managers' Amendment of S.515. ■

32. *See Hyatt*, 576 F.3d at 1255 n.5, 91 USPQ2d at 1895 n.5, 1898.