COMMITTEE PRINT REGARDING PATENT QUALITY IMPROVEMENT

HEARING

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

OF THE

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COMMITTEE PRINT REGARDING PATENT QUALITY IMPROVEMENT

Part I

WEDNESDAY, APRIL 20, 2005

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COURTS, THE INTERNET,
AND INTELLECTUAL PROPERTY,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 4:38 p.m., in Room 2141, Rayburn House Office Building, the Honorable Lamar Smith (Chair of the Subcommittee) presiding.

Mr. SMITH. The Subcommittee on Courts, the Internet, and Intellectual Property will come to order.

We appreciate all the interest demonstrated by all the folks today. This is an important hearing. It is the first of several hearings on the subject, but I'm glad for everyone's interest.

Also, let me say that there is a concurrent Members-only briefing on Iraq that is being given by the Secretary of Defense, and I know we've lost several Members to that activity. Nevertheless, it doesn't diminish from what is said nor the importance of the meeting itself.

I'll recognize myself for an opening statement and then recognize the Ranking Member, and then we'll get to our witnesses as soon thereafter as possible.

This hearing is the first of two that we will conduct this month on patent reform. More specifically, today the Subcommittee will explore the merits of a committee print that incorporates a number of changes to improve the quality of patents issued by the U.S. Patent and Trademark Office.

The print also speaks to certain patent practices that disrupt the operations of manufacturers and other businesses.

The Subcommittee will hold its second hearing on the print next week and a third hearing on a bill that I will introduce shortly after that.

While the Subcommittee has documented a steady increase in application pendency and backlogs at the PTO in recent years, the consensus view among agency officials and the inventor community is that efforts to address these problems should not take precedent over improving patent quality.

Patents of questionable scope or validity waste valuable resources by inviting third party challenges and ultimately discourage private sector investment.

Accordingly, our Subcommittee has pursued a number of initiatives over the past decade to improve the operations of the PTO and the patent system. But concern over patent quality and its effect on the economy at large has not been confined to Congress and the PTO.

Comprehensive studies recently issued by the Federal Trade Commission and the National Academies generated much discussion within inventor, industry, and Government circles about the present patent system and how it could be improved.

Critics of the U.S. patent system became more vocal as their ranks swelled. They maintained that the gains of the previous decade were too incremental or otherwise insufficient.

The Subcommittee responded in the last Congress by conducting oversight hearings on seven reform proposals.

While we did not move an omnibus reform bill in 2004, the hearings contributed to the growing sentiment that favors enactment of such legislation in this Congress.

The committee print is a first step in that process. It contains most of the leading recommendations developed by the PTO and a broad cross-section of industry and trade associations that are involved in the formulation of patent policy.

It is expected that small businesses, independent inventors, and other interested parties also will participate in this dialogue and the eventual drafting of a bill based on the print that I expect to move this spring.

I realize many competing interests are affected by our work on this broad topic, With so much on our plate, ours is an ambitious undertaking, at least by my account, but we still expect to succeed.

With that, I'll recognize the Ranking Member for his opening comments as well.

Mr. BERMAN. Thank you, Mr. Chairman. Perhaps we can talk about patent protection in the new Iraq, and merge the briefing with the subject of this hearing.

I want to thank you for scheduling this hearing and in the past my colleague from Virginia, Mr. Boucher, and I have introduced legislation on patent quality reforms a number of times. I think the general discussion of the need to look at many of these questions has attempted—has fostered a discussions among diverse industry groups, all of which now recognize the need for changes to the patent law.

While there are many differing views about how to amend the law, we all share a common goal, which is improving the quality of the patent system. Our patent system was designed to promote continual innovation by providing strong protection for intellectual property.

However, if we protect invalid patents, the system will have the opposite effect: that of hindering creative output. And the introduction of poor quality patents into the marketplace actually increases the amount of litigation and has a negative effect on the economy.

The problem of low-quality patents cuts across the entire spectrum of art units that the Patent Office examines. But the chief culprit seems to be patents in the business methods and software area.

The Patent Office has initiated what it calls a second set of eyes review in an effort to address the problem. But this is merely a stop gap measure. Without an assurance of sufficient funding every year, the PTO can't maintain the staff it needs to administer the reviews or implement new quality initiatives.

So funding for the PTO and an end to diversion I think should remain as top priorities in any reform effort.

Any legislative solution to the problem of patent quality must address deficiencies both at the front end of the process—that is, the examination stage, which takes place in the PTO—and at the back end, which takes place in the courtroom.

The quality of patents system should be addressed both from—from both perspectives. Inventors should have confidence about the quality of the patents they receive before investing further in research and development, and equally secure in the knowledge they can properly enforce that patent.

I have a couple of concerns in this vein relating to the committee print. The print primarily describes reforms to litigation and remedy provisions. While I think many of the suggestions are worthwhile and worthy of support, I'm concerned that we are merely treating the symptoms without enough emphasis on curbing the underlying—curing the underlying disease. Patent quality needs to remain a focus, with an objective of minimizing litigation on numerous invalidity claims.

For example, including a provision on allowing submissions of additional prior art to an examiner may be helpful in addressing this poor quality problem.

Furthermore, much of the print speaks to harmonization of U.S. patent law with patent law in the rest of the world. For example, shifting from a first to invent paradigm to one of first inventor to file. While this is a very important and necessary discussion, having experienced the opposition that can be generated on patent reform issues in certain areas in the past, in the late 1990's, I'm concerned that opposition to those provisions at this point will affect the ability to achieve other essential patent reform.

So I'm looking forward to today's hearings—hearing from today's witnesses to identify potential solutions to the problems created by questionable patent quality. Just to note, some of the suggestions for change, such as the injunction provision, may not be palatable to some of the witnesses. But I throw out a challenge to those witnesses: if you don't like that provision, help us craft a resolution to the problem the injunction provision was designed to address, that of the patent's role. While the structure of the discussion may be centered around the committee print, I hope that the witnesses here and in the future hearings will identify additional possibilities for resolving patent quality problems. I look forward to working with you, Mr. Chairman, in drafting effective patent legislation.

Mr. SMITH. Thank you, Mr. Berman.

The gentleman from Virginia, Mr. Goodlatte is recognized.

Mr. GOODLATTE. Mr. Chairman, thank you for holding this important hearing to examine the committee print on improving patent quality. As we all know, article I, section 8 of our Constitution lays the framework for our Nation's patent laws. It grants Con-

gress the power to award inventors for limited amounts of time exclusive rights to their inventions.

The framers had the incredible foresight to realize that this type of incentive was crucial to ensure that America would become the world's leader in innovation and creativity.

These incentives as just as important today as they were at the founding of country, if not more so. We must make sure the incentives our framers put into our Constitution remain meaningful and effective. The U.S. patent system must work efficiently if America is to remain the world leader in innovation.

It is only right that as more and more inventions with increasing complexity emerge that we should examine our Nation's patent laws to ensure that they still work efficiently and that they still encourage and do not discourage innovation.

One industry sector which is beginning to showcase the potential problems inherent in our Nation's patent system is the high tech industry.

In today's economy, many high tech products involve hundreds and even thousands of patented ideas. Technological innovators must work to ensure that they obtain the lawful rights to use the patents of others through licenses and other lawful mechanisms.

However, it appears that a cottage industry is emerging that seeks to take advantage of the complexity of these products, combined with loopholes in our patent laws, to extort money from high tech companies, both large and small.

To be sure, these problems are not limited to the high

tech industry. Inventors in all industries are increasingly facing these types of problems. The solution to these problems involves both ensuring that quality patents are issued in the first place and ensuring that we take a hard look at patent litigation and enforcement laws to make sure that they do not create incentives for opportunists with invalid claims to exploit.

All inventors will reap the rewards of a streamlined patent system that ensures that good quality patents are issued and that opportunists cannot take advantage of loopholes in our enforcement laws.

I look forward to exploring the details of the committee print with the witnesses.

Again, Mr. Chairman, I thank you for holding this important hearing, and I'd ask that my full opening statement be made a part of the record.

Mr. SMITH. And without objection, they will be.

[The prepared statement of Mr. Goodlatte follows:]

PREPARED STATEMENT OF THE HONORABLE BOB GOODLATTE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA

Thank you, Mr. Chairman, for holding this important hearing to examine the committee print on improving patent quality.

Article I Section 8 of our Constitution lays the framework for our nation's patent laws. It grants Congress the power to award inventors, for limited amounts of time, exclusive rights to their inventions. The Framers had the incredible foresight to realize that this type of incentive was crucial to ensure that America would become the world's leader in innovation and creativity.

These incentives are just as important today as they were at the founding of our country. As we continue our journey into the digital age, we must make sure that the incentives our Framers put into our Constitution remain meaningful and effec-

tive. The U.S. Patent system must work efficiently if America is to remain the world leader in innovation.

It is only right that as more and more inventions with increasing complexity emerge, that we should examine our nation's patent laws to ensure that they still work efficiently and that they still encourage, and not discourage, innovation.

One industry sector which is beginning to showcase the potential problems inherent in our nation's patent system is the high tech industry. In today's economy, many high tech products involve hundreds, and even thousands, of patented ideas. Technological innovators must work to ensure that they obtain the lawful rights to use the patents of others, through licenses and other lawful mechanisms. However, it appears that a cottage industry is emerging that seeks to take advantage of the complexity of these products, combined with loopholes in our patent laws to extort money from high tech companies, both large and small. To be sure, these problems are not limited to the high-tech industry—inventors in all industries are increasingly facing these types of problems.

The solution to these problems involves both ensuring that quality patents are issued in the first place, and ensuring that we take a good hard look at patent litigation and enforcement laws to make sure that they do not create incentives for opportunists with invalid claims to exploit.

The Committee Print addresses both of these concerns. It would create a new post-grant opposition system in which any member of the public could request the USPTO to review the scope and validity of a patent within nine months from the date of its issuance. While this provision would help to ensure that quality patents are issued, the nine month limit is intended to prevent third parties from harassing a patent owner. In addition, the Committee Print eliminates the provision in current law that prohibits a party from raising an issue on appeal that could have been raised during a reexamination proceeding. This provision is meant to encourage more participation in the reexamination process to ensure that only quality patents are issued.

The Committee Print also includes provisions to ensure that patent litigation benefits those with valid claims, but not those opportunists who seek to abuse the litigation process. Specifically, the bill creates a clear standard for "willful infringement," ensures that injunctions are issued only when the patentee is likely to suffer irreparable harm that cannot be remedied by the payment of money damages, and ensures that damages awarded to a party are proportional to the value that the party's invention contributes to the total value of the defendant's product.

All inventors will reap the rewards of a streamlined patent system that ensures that good quality patents are issued, and that opportunists cannot take advantage of loopholes in our enforcement laws.

Thank you again, Mr. Chairman for holding this hearing. I look forward to hearing today from our witnesses.

Mr. SMITH. Thank you, Mr. Goodlatte.

Before I introduce the witnesses, I'd like to invite you to stand and be sworn in.

[Witnesses sworn.]

Mr. SMITH. Thank you. Please be seated. Let's see our first witness if Jeff Hawley, President of the Intellectual Property Owners Association. Mr. Hawley also serves as Legal Division Vice President and Director of the Patent Legal Staff for Eastman Kodak in Rochester, New York. He earned a bachelor's degree in electrical—excuse me—chemical engineering from the New York University School of Engineering, and a law degree from George Washington University.

The next witness is Richard Lutton, Chief Patent Counsel for Apple Computer, where he oversees patent development, licensing, and litigation for Apple's computer hardware and software business. He will testify on behalf of the Business Software Alliance. Mr. Lutton earned a bachelor's degree in electrical engineering from Rice and a law degree from Columbia.

Our next witness is Jeffrey Kushan, a Partner and Patent Attorney at Sidley, Austin Brown and Wood's Washington, D.C. office. He is testifying on behalf of Genentech, a biotechnology company

based in San Francisco. Mr. Kushan is a graduate of the George Washington University Law School. He also earned a master's in chemistry from the University of North Carolina at Chapel Hill, and a bachelor's in chemistry from the College of William and Mary.

Our final witness is William LaFuze, a Partner in the Houston Office of Vinson and Elkins, where he specializes in intellectual property law, with an emphasis on electronics, oil field equipment and computer-related litigation.

Mr. LaFuze chairs the Intellectual Property Law Section of the American Bar Association and will testify on their behalf. He earned his undergraduate degree in physics from the University of Texas, a master's in applied science from Southern Methodist University, and a law degree from Texas as well.

Welcome to you all. We have your written statements, and without objection they'll be made a part of the record.

Let me wish you well as you try to summarize those testimonies, and I read every one, in 5 minutes. But do the best you can, and then we'll look forward to asking you questions about the rest of your testimony as well. Mr. Hawley, we'll begin with you.

TESTIMONY OF J. JEFFREY HAWLEY, LEGAL DIVISION VICE PRESIDENT AND DIRECTOR, PATENT LEGAL STAFF, EASTMAN KODAK COMPANY, ON BEHALF OF INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

Mr. HAWLEY. Thank you, Mr. Chairman and Members of the Committee, and I'll do my best to stick to the 5 minutes.

As you noted, I'm speaking today on behalf of the Intellectual Property Owners Association. IPO is a trade association that represents companies and individuals in all industries and fields of technology who are interested in intellectual property rights.

We would like to compliment the Subcommittee on putting together more than a dozen specific proposals for improving the patent system in the committee print, and IPO enthusiastically endorses the majority of the proposals; is concerned about one of them; and is studying others.

You mentioned in your opening statement that this is indeed an ambitious undertaking and with so many individual provisions I think that's a bit of an understatement. This is going to be a challenging time.

We believe that the principles underlying the U.S. patent system are sound and that the system has served the country well for over 200 years.

This is confirmed by the recent in-depth studies that, Mr. Chairman, you mentioned—the FTC study, the National Academy of Sciences study—and also a recent publication by the economists Jaffey and Lerner. In spite of some popular press criticisms to the contrary, the patent system provides important incentives for our members and other innovators to create and commercialize new technology.

However, as you have also noted, the U.S. Patent and Trademark Office is in a bit of a crisis, caused by underfunding, in turn caused by the diversion of user fees to non-related Government programs,

to the tune of about three-quarters of a billion dollars in the last 10 years.

We are optimistic that the situation in the U.S. PTO is turning around. We recommend that the highest priorities for the patent system going forward, should be improving the patent quality, as everyone has mentioned so far, reducing the cost of patent litigation and international patenting, and also reducing the uncertainty over the scope of patent rights.

Turning now to the committee print, we support establishing a new post-grant opposition proceeding, which will allow the public to request an opposition during a period of 9 months after the grant of a patent.

We favor nearly all of the features of the post-grant proceeding that are in the committee print. We have attached to the appendix of our written statement a listing of the features that we recommend for a post-grant opposition system.

We also support enthusiastically the proposed limitations on the award of treble damages for patent infringement. We believe these limitations will reduce litigation costs and discourage unwarranted suits. The proposal will correct the situation that some companies have said causes them to be wary of even reading patents of their competitors for fear that the company will, thereby, be on notice of patent infringement for the purposes of willful infringement.

A significant improvement over current law is the very welcomed clarification of the notice requirements that are also found in the committee print, and we applaud you for that.

We support the awarding of the patent to the first inventor to file. This change from first to invent procedure will provide more certainty for patent rights. The first inventor to file system is the best system for the United States and IPO believes that it should be done even outside the context of international harmonization. But its adoption is important for our participation in the international harmonization efforts.

Recent studies by former PTO Commissioner Mossinghoff have shown that the benefits of the first to invent system do not justify its costs, and this very same conclusion was reached by the National Academy of Sciences.

With regard to injunctions, while it may be possible to change the balance slightly in favor of the infringer to reduce abuses, the proposal in the committee print represents a radical change and goes too far.

Compared to current law, this proposal shifts the burden from the—to the patentee from the infringer. It requires that an injunction be denied unless there is a reason to grant it; whereas, under current law it's granted unless there is a reason to deny it. It imports preliminary injunction concepts into permanent injunction determinations and it encourages courts to give substantial weight to whether or not the patentee works the invention.

Our written statement explains why we believe the injunctions proposal would diminish the incentive for innovation provided by American patent system. We believe exclusive rights should continue to be available to the same extent for patented inventions as they are for a copyrighted book—work, such as books, motion pictures, sound recoding, and software.

We again want to thank you for the opportunity for being here today. I see I made it under 5 minutes comfortably and I would be pleased to answer any questions.

[The prepared statement of Mr. Hawley follows:]

PREPARED STATEMENT OF J. JEFFREY HAWLEY

Mr. Chairman and Members of the Subcommittee:

My name is J. Jeffrey Hawley. I am Legal Division Vice President and Director, Patent Legal Staff, for Eastman Kodak Co. in Rochester, New York. I am speaking today on behalf of Intellectual Property Owners Association (IPO), of which I am the current elected President.

IPO is a trade association representing companies and individuals in all industries and fields of technology who own or are interested in intellectual property rights. IPO's membership overlaps with the membership of many organizations, including BIO and BSA who are here today. IPO members include more than 100 large and medium-size corporate members and a number of small business and individual inventor members. Our members file about 30 percent of the patent applications that are filed in the United States Patent and Trademark Office (PTO) by U.S. nationals. In addition to our legislative interests, we comment frequently and in detail on PTO rules changes and file amicus briefs in cases of interest to us. We have more than 850 people volunteering in 34 standing committees studying trends in IP law.

We appreciate the opportunity to discuss the April 14 Committee Print, which contains more than a dozen significant proposals for improving the patent system. We compliment the Subcommittee on assembling so many promising ideas. IPO enthusiastically endorses a majority of the proposals in the Committee Print. I will give an overview and then summarize our reaction to each proposal.

OVERVIEW OF PTO AND PATENT LITIGATION ISSUES

Our members almost universally believe the patent system needs improvement. IPO was one of the first organizations to say that the PTO was in a "crisis," when we testified before this Subcommittee in 2001. We expressed concerns about the quality of patents granted by the PTO and the growing length of time required to grant or deny a patent. Since that time, reports from the Federal Trade Commission (FTC) and from the National Academy of Sciences (NAS) have recommended a number of changes to the patent system to improve its effectiveness in encouraging innovation in U.S. industry. In 2002 we endorsed the PTO's 21st Century Strategic Plan, which is directed at improving PTO operations and is now being implemented.

The diversion of more than three-quarters of a billion dollars in PTO user fees since 1992 has been a major factor in the PTO crisis. If the PTO had had the opportunity to spend the diverted funds, which were paid by our members and other PTO users for services they expected to receive, today's picture would be very different. We are optimistic that the situation at the PTO can be improved. Director Jon W. Dudas is acting aggressively with the aid of more than $200 million annually in additional funding provided by last December's patent fee increase to address the office's problems. We understand that the PTO is hiring more patent examiners and making efforts to improve employee recruiting and training, recertify examiner skills, and improve patent procedures. We are cautiously optimistic that no more user fees will be diverted in the short term. The threat of fee diversion remains, however, and IPO will therefore continue to support this Subcommittee's work to enact legislation to permanently end fee diversion.

No silver bullet exists, of course, that can turn the PTO around overnight. The patent quality problem is complex and not amenable to any single solution. The time required to grant or deny a patent will continue to increase for some years despite stepped-up patent examiner hiring, because new examiners must undergo an extensive training program to become productive and because training large numbers of new examiners takes experienced examiners off the production line. We are in an environment in which confidence in the validity of patents will continue to be lower than desirable for the foreseeable future and the time required to grant or deny a patent will be far longer than the traditional goal that IPO continues to support—an average of 18 months after filing the initial application until patent grant or denial.

The problems with patent quality and long PTO delays create uncertainty about legal rights in technology. Uncertainty discourages investment by patent owners and their competitors in research, development, and commercialization of new products needed to maintain the country's technological and economic strength.

Our members have experienced a sharp rise in patent litigation costs. Hildebrandt International's 2004 Law Department Survey reported that the companies surveyed spent 32 percent more on outside counsel for intellectual property litigation in 2003 than in the previous year. They spent only one percent more for outside counsel on non-IP litigation. Some IPO members believe a substantial portion of the rise in litigation costs can be attributed to organizations that have engaged in abusive practices including threatening frivolous lawsuits.[1] A number of suggestions have been made by companies in the information technology industry and others for legislation to reform patent litigation. IPO believes some of these ideas have merit.

Our members are also faced with high patent costs for protecting their technology internationally. Under the existing system U.S. applicants must file separate patent applications in separate countries and regions that require different application content and format. This process is costly and inefficient. In addition, patent offices around the world are wasting large sums by duplicating each others' efforts in patent searching.

A worldwide patent law harmonization treaty is needed. We also believe international patent expenses can be reduced through administrative and other changes by the U.S., Japanese, and European patent offices, which receive the bulk of applications from U.S. industry. Last week IPO, the American Intellectual Property Law Association (AIPLA), the Japanese Intellectual Property Association (JIPA), and the European industry association UNICE held the fourth in a series of meetings to develop recommendations to enable the same patent application to be filed, searched, and processed in the three largest offices without the need for amendment during the granting process. We hope to publish our final recommendations before the end of the year. Many of the changes required to harmonize the world's patent laws will require legislation, and we support the harmonization-related legislative proposals in the Committee Print.

POST-GRANT OPPOSITION PROCEDURES AND INTER PARTES REEXAMINATION PROCEDURES

Section 9 of the Committee Print establishes a new post-grant opposition procedure. Establishment of a post-grant opposition feature was recommended in both the FTC and NAS reports. Under Section 9, post-grant opposition would enable any competitor of a patent owner or other member of the public to make a request not more than nine months after the grant of a patent for the PTO to reconsider whether the patent should be granted.[2] The party requesting an opposition could raise any of the statutory requirements for patentability as an issue for invalidity of the patent. The PTO Director could dismiss a request lacking substantial merit and would be required to complete the opposition procedure within one year. Limited discovery would be available and appeals could be taken to the U.S. Court of Appeals for the Federal Circuit.

IPO strongly endorses establishing this type of post-grant opposition proceeding. We believe the opportunity to request an opposition should be available only for nine months after the grant of the patent. The alternative view is that oppositions should be available at any time after the grant of the patent throughout its life or at least for a period of time at any time after the patent owner receives a notice of alleged infringement or an offer to license. Those favoring a short window of time after patent grant for requesting opposition, including IPO, tend to view the opposition procedure as an additional review of the patent examination process in the PTO and an opportunity for members of the public to submit information and present arguments that may not have been available to the Office. Those favoring making oppositions available throughout the life of the patent tend to view the procedure as an alternative to patent validity litigation in U.S. District Courts. This would be similar to the "revocation" process that is found in the procedure of many foreign countries. Although an opposition procedure should not be viewed as a substitute for the Office performing a thorough initial examination, the existence of an opposition procedure will reduce uncertainty and increase confidence by patent owners and the public in the quality of patents that have survived an opposition or have not been opposed. Limiting the time for oppositions will help avoid possible harassment of patent owners and avoid large numbers of opposition proceedings that would overtax the Office's ability to handle the proceedings. Importantly, an indefinite period of opposition exposure would hinder the ability of startup companies to receive prompt funding through the venture capital system.

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[1] See generally materials from March 14, 2005 IPO conference "Patent Trolls and Patent Property Rights" (materials available from IPO).

[2] Committee Print, pp. 36–49.

Any opposition proceeding must be carefully balanced to protect the interests of patent owners and competitors and to maintain the value of patents as an encouragement for invention, research, development, and commercialization. Changing one feature of a proceeding may require changing other features in order to maintain the desired balance. IPO has studied opposition procedures and developed a list of 16 inter-related attributes that we believe would provide a balanced proceeding and improve patent quality. Our list is attached to this statement as an Appendix.

Only a few of our suggested attributes differ from those in the Committee Print. We recommend that: (1) the standard of proof applied during an opposition proceeding should be the clear and convincing evidence standard; (2) the requester of an opposition proceeding should be required to publicly disclose its identity in every case; and (3) an opposition proceeding requested by an accused infringer should be stayed if an infringement suit is filed against the accused infringer in a district court before the opposition is requested.

Section 9 of the Committee Print modifies the existing "inter partes reexamination" proceeding that was established in 1999 by the American Inventors Protection Act.[3] Inter partes reexamination proceedings differ from the proposed post-grant opposition proceedings in that inter partes reexaminations are available at any time during the life of the patent and are limited to patentability issues based on earlier patents or publications describing the invention at issue—documentary prior art. The Committee Print expands inter partes reexaminations by (1) removing the limitation that a requester is estopped from asserting at a later time patent invalidity on any ground that the requester "could have raised" during the reexamination proceeding; and (2) making inter partes reexamination available for any patent granted on any date. The American Inventors Protection Act limited inter partes reexamination proceedings to patents granted on applications filed after November 29, 1999. The two limitations on inter partes reexamination addressed by the Committee Print have prevented significant use of inter partes reexamination to date. Only about 75 inter partes patent reexaminations have been requested. IPO supports the changes in inter partes reexamination in the Committee Print. We believe that with these changes, inter partes reexamination will be used more often. It will serve as a useful complement to the proposed post-grant opposition proceedings by providing a relatively simple and inexpensive proceeding for challenging a patent at any time during its life on the limited grounds—documentary prior art—on which the PTO has the most experience. With emphasis on prompt reexamination announced by Director Dudas recently, inter partes reexamination will also be a relatively rapid proceeding for obtaining determinations of patentability. Availability of an improved inter partes reexamination proceeding bolsters the case for limiting post-grant opposition proceedings to a nine-month period after grant.

WILLFUL INFRINGEMENT AS BASIS FOR TREBLE DAMAGE LIABILITY

IPO supports the amendment in Section 6 of the Committee Print that clarifies and limits the law on awards of treble damages for patent infringement.[4] The section implements recommendations of the FTC, the NAS and others including IPO that treble damages should be assessed against infringers only in limited situations. Some companies have stated that existing judicial interpretations on treble damages have caused them to be wary of even permitting their employees to read competitors' patent documents for fear the company will be found to be on notice of infringement for purposes of treble damages liability. Some feel that treble damages are too readily available and encourage owners of questionable patents to file law suits and obtain settlements in cases in which defendants have not knowingly infringed a valid patent.

The Committee Print prohibits an inference of willful infringement based on the absence of an opinion of counsel and prohibits treble damages based merely on knowledge of a patent or its contents by the defendant. The Committee Print limits treble damages to specific situations including instances where the defendant has received a detailed written notice from the patent owner charging infringement and identifying the specific patents, claims, and allegedly infringing products or processes. A significant feature of this provision in the Committee Print is that the notice from the patentee must be sufficient to give declaratory judgment jurisdiction to the receiver of the notice. This prevents the current tactic used by abusers of placing the receiver of the notice in legal limbo—subject to the possibility of treble damages but with no legal remedy to resolve the situation. Other circumstances in which the Committee Print approves treble damages are those in which (1) the de-

[3] Committee Print, p. 35.
[4] Committee Print, pp.29–31.

fendant intentionally copied the patent subject matter and (2) the patent was asserted against the defendant in a previous judicial proceeding.

We believe these reforms on willfulness and treble damages will reduce litigation costs and discourage unwarranted suits. These reforms together with limited post-grant opposition proceedings and improvements in inter partes reexamination proceedings would constitute significant reform of the patent litigation system.

RIGHT OF FIRST-INVENTOR-TO-FILE

Section 3 of the Committee Print awards the patent to the first-inventor-to-file when two inventors file patent applications, changing the traditional U.S. first-to-invent procedure. IPO supports this change.[5]

Awarding the patent to the first-inventor-to-file eliminates interference proceedings in the USPTO. Fewer than one-tenth of one percent of patent applications become involved in interference proceedings, but proceedings are costly and the possibility of another party proving a date of invention earlier that the invention date of the first party to file causes uncertainty for patent rights. Data compiled recently by Gerald J. Mossinghoff, a former head of the PTO, indicates that small inventors fare no better under the first to invent system than they would under a first to file system and perhaps not as well.[6] The Committee Print correctly uses the term "first-inventor-to-file" to avoid any suggestion that a person who is not an inventor can obtain a patent by filing an application earlier than the inventor.

IPO supports first-inventor-to-file because it is the best system for the U.S. While its adoption would have a less immediate effect on the U.S. patent system than many of the other proposals in the Committee Print because of the small number of cases involved, adoption of first-inventor-to-file system would have important ramifications for the current talks on a possible substantive patent law harmonization treaty. The U.S. is the only country in the world with a first-to-invent system. In past harmonization talks the unwillingness of the U.S. to change its system has been an emotional issue with other countries. Additional visible support for a first-inventor-to-file system in the U.S. has come recently in the form of endorsements by the American Bar Association and the NAS report. Introduction of a bill in Congress would be a positive sign that the U.S. may be prepared to eliminate one of the obstacles to substantive patent law harmonization.

INJUNCTIONS

Section 7 of the Committee Print makes it more difficult for patent owners to obtain injunctions to stop infringement of patents.[7] Reducing the availability of injunctions was not a feature of either the FTC or the NAS report. The IPO position will have to be updated, but when this specific proposal was reviewed by the Board of Directors in 2001, exactly as worded in Section 7, most members of the board were unwilling to support it. I will explain the case against the proposal, which contains concepts that IPO has strongly rejected over the years—compulsory licensing and a requirement for the patent owner to use the patented invention.[8]

A fundamental distinguishing feature of American intellectual property rights for more than 200 years, embodied in Article I, Section 8, Clause 8 of the U.S. Constitution, is that patent and copyrights rights are EXCLUSIVE rights. Exclusivity comes from the availability of permanent injunctions. Many believe the principle of exclusivity has contributed mightily to America's leadership in technology, in the case of patent rights, and to literary and artistic creativity, in the case of copyright. Exclusive rights should be available to the same extent for patented inventions and for copyrighted works such as books, motion pictures, sound recordings, and software. We expect that because of the way it is written, this particular proposal would come under constitutional attack.

We understand the proposal to be directed to permanent injunctions. It is sometimes said permanent injunctions issue at as a matter of course at the conclusion of patent or copyright litigation. Professor William C. Robinson of Yale University explained the distinction between preliminary and permanent injunctions in his classic 1890 treatise *The Law of Patents:*

> A preliminary injunction is not, like a perpetual injunction, a matter of course, nor can its issue be governed by any formulated and established rules. . . . A permanent injunction issues as a matter of course, at the conclusion of a suit

[5] Committee Print, p. 7, amending 35 U.S.C. 135.
[6] Washington Legal Foundation Civil Legal Issues No. 129, April 15, 2005.
[7] Committee Print, pp.31–32.
[8] The U.S. Government has also been consistently critical of compulsory licensing and working requirements in international negotiations.

in equity, whenever the plaintiff has sustained the allegations of his bill, provided the patent has not then expired.[9]

This is not precisely today's law, however, and permanent injunctions do not issue as a matter of course. A permanent injunction is not issued if a case is exceptional—i.e., if a sufficient reason exists for denying it. Permanent injunctions have been denied, for example, because the defendant agreed to eliminate the infringement within a period of time, or because of laches or estoppel, or, in rare cases, because of "public interest."

By introducing a standard that, "A court shall not grant an injunction . . . unless . . . the patentee is likely to suffer irreparable harm that cannot be remedied by payment of money damages, the proposed language in the Committee Print would make a drastic change in existing law. A permanent injunction would be *denied unless there was a reason to grant it—the opposite of the law today, where it is granted unless there is a reason to deny it.* Also, a major new hurdle would be introduced with the requirement for irreparable harm, which is a preliminary injunction concept. The likely effect of these two changes would be to make patent rights in the U.S., in many cases, subject to compulsory licensing, a common feature of patent systems abroad. In addition, the Committee Print as presently worded would make injunctions more difficult to obtain if a patent owner is not using the invention. By encouraging courts to consider the patent owner's use, this would essentially establish a requirement similar to "working requirements" found in patent laws abroad that provide weaker incentives for innovation. IPO has consistently been opposed to working requirements.

By removing the prospect of obtaining a permanent injunction in many cases, Section 7 would remove an injunction as the patent owner's leverage to encourage infringers to settle disputes by taking licenses. With reduced prospect of an injunction, voluntary license agreements would become more difficult to obtain and royalty rates would be more often determined by courts and less often by market forces.

Supporters of this particular injunction proposal cite with approval the fact that it would reduce the bargaining power of patent holders and make it less likely that companies would be forced to shut down product lines. The supporters feel they are being threatened with too many patents of questionable validity or scope. We understand the frustrations with the current patent litigation environment, but other approaches exist for reducing patent litigation and for avoiding becoming subject to a permanent injunction.

Permanent injunctions often are not issued because the parties can negotiate a settlement or else the accused infringer can redesign its product during the several years usually required to complete patent litigation. If a product cannot be redesigned to avoid a patent, it may be an indication the patent is for a fundamental invention and the infringer should be prepared to withdraw the product and expect to pay large compensation. Manufacturers can help themselves avoid patent infringement by monitoring and analyzing patents and patent applications as they are published by the PTO and by conducting product clearance patent searches before new products are put on the market. These practices are followed routinely in many industries.

The encouragement for courts to consider whether the patent owner produces the invention itself, in the second part of Section 7 of the Committee Print, is tantamount to a working requirement. This is inconsistent with the concept of patents as intellectual property rights. A working requirement would greatly diminish the value of patents and the incentives for innovation they provide, particularly for universities, which are not manufacturers, and for small businesses and inventors who may lack resources to have a patented product or service on the market before litigation.

We believe the proposed changes in the law on availability of injunctions, as worded in Section 7, would be a major blow to incentives for innovation provided by the American patent system and would result in a huge decline in the value of patents now in force. The role of the patent system in maintaining America's technological leadership would be diminished.

Before deciding whether to adopt this specific proposal on injunctions, we recommend that the Subcommittee obtain more information than we have been able to collect in advance of this hearing on the large number of cases in which patent injunctions have been granted and denied, and the effects on various industries of making injunctions more difficult to obtain.

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[9] Robinson, *The Law of Patents* (1890), §§ 1170 and 1220.

OTHER PROPOSALS IN COMMITTEE PRINT

Definition of Prior Art

Section 3 of the Committee Print revises the definition of "prior art."[10] These changes accommodate the first-inventor-to-file system. Certain changes are required in the definition of prior art for a first-to-file system. The Committee Print makes additional changes in the definition of prior art that are not necessary for a first-to-file system but which are designed to clarify and improve the law. IPO supports these changes as part of the switch to a first-to-file system.

Filing of Patent Applications by Assignees

Section 4 of the Committee Print permits a party to whom the inventor has assigned or is under an obligation to assign the invention (i.e., the real party in interest) to file the patent application on behalf of the inventor.[11] The Committee Print provides that if a patent is granted to the real party at interest, the inventor will be given such notice as the USPTO Director considers to be sufficient. IPO supports assignee filing as a useful simplification in the procedure for filing applications.

Elimination of Best Mode Requirement

Section 4 of the Committee Print amends the patent code to eliminate the requirement that an inventor must set forth the best mode contemplated of carrying out the invention.[12] The 2004 National Academy of Sciences report identified this change in law as one of three changes that might be made to eliminate subjective elements in patent litigation and thereby reduce the cost of litigation and increase the predictability of litigation outcomes.[13] IPO supports the change.

Duty of Candor

Section 5 of the Committee Print codifies a duty of candor owed to the PTO by patent applicants and other parties.[14] IPO is still studying the need for legislation on this subject. The NAS report recommended duty of candor legislation as a way to limit the subjective elements of patent litigation. The duty of candor today is defined by PTO rules and court decisions It is important to have a strong duty of candor that requires patent applicants to submit relevant prior art they know about to the PTO. Prior art submissions are essential to help insure the quality of granted patents. We would not favor any legislation that would cause fewer relevant prior art references to be submitted. If legislation would clarify the duty of candor and make patent applicants more comfortable in volunteering explanations and opinions about submitted prior art that applicants are reluctant to express today because of fear of being charged with fraud, legislation could be useful.

Damages When Invention Incorporated Into Larger Product or Method

Section 6 of the Committee Print provides that when an invention is incorporated into a known method or apparatus any award of damages will be based only on such portion of the total value of the method or apparatus as is attributable to the invention.[15] The proposal appears to be directed at the so-called "entire market value" rule that has been applied by courts in cases where the patented feature is the entire basis for customer demand for the apparatus or method. Although the proposal states a principle that produces the fairest result when less than the total value of the method or apparatus is attributable to the invention, the proposal as drafted could produce unfair results or would not apply in some situations. In some cases the patented feature is the entire basis for customer demand for the apparatus or method. Some inventions involve eliminating a component from an apparatus or method. Some inventions combine two known inventions with the combination producing a new result.

Continuation Applications

Section 8 of the Committee Print prohibits presentation of a patent claim that is broader than claims presented at a specified earlier time in the patent application or a predecessor application.[16] IPO agrees with the 2003 Federal Trade Commission Report stating that legitimate uses exist for amending claims in continuing applications, thus any proposal to address opportunistic broadening of claims should pro-

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[10] Committee Print, pp. 3–6, amending 35 U.S.C. 102.
[11] Committee Print, p.9.
[12] Committee Print, p.10.
[13] "A Patent System for the 21st Century," National Research Council of the National Academies (2004) at 99.
[14] Committee Print, pp.10–29.
[15] Committee Print, p.31.
[16] Committee Print, p.32.

tect such legitimate uses. IPO members have expressed some support for placing limits on enlarging claims in continuation applications, because continuation applications have been used to manipulate the patent system in certain cases. Applicants have kept so-called "submarine" patent applications alive in the PTO for many years and reshaped the claims as products or processes of others in an industry evolved. Concerns about submarine patent applications have subsided as a result of (1) the change of the patent term in 1995, so that it expires 20 years after the filing of the first application, (2) court decisions on "prosecution laches," and (3) publication of most patent applications 18 months after filing starting in 2000. Some concerns about submarine applications still exist. The issues with the proposal in the Committee Print seem to be whether it would be effective, because it might be circumvented by presenting unreasonably broad claims at the outset in every case, and whether the time periods for enlarging claims are too short, given that applicants have legitimate needs to amend and enlarge their claims in some circumstances.

Publication of All Patent Applications After 18 Months

Section 9 of the Committee Print requires publication of all patent applications 18 months after filing.[17] The American Inventors Protection Act exempted applications from publication if the applicant requested an exemption because a corresponding application was not being filed in another country. Most countries publish all applications. We understand that about ten percent of applications filed in the USPTO are not being published. IPO supports publication of all applications in order to provide more information to the public at an earlier date and increase certainty about the scope of patent rights being sought.

Prior User Rights

Section 9 of the Committee Print also amends the section on prior user rights in the American Inventors Protection Act by (1) deleting limitation to "methods of doing or conducting businesses," (2) deleting requirement for reduction to practice "at least one year before the effective filing date," and (3) extending rights to "substantial preparation for commercial use."[18] IPO supports these changes to provide prior user rights for innovators in all fields of technology and to make prior user rights more effective. Prior user rights strike a balance between the interests of the first-inventor-to-file a patent application and another party who provided a benefit to the public by commercializing the invention early but chose to rely on trade secrets, which may be more effective for protecting inventions that can be used in secret, such as manufacturing processes.

Combinations of Components Outside U.S.

Section 10 of the Committee Print amends Section 271(f) to provide that an item supplied from the U.S. is not a "component" for purposes of patent infringement under that section unless it is a tangible item that is itself combined physically with other components to create a patented combination.[19] Several IPO members have suggested that the recent Eolas and AT&T cases involving Section 271(f) may have been wrongly decided. IPO is studying the issue and has not yet taken a position. If the cases were wrongly decided, other options may exist in addition to the proposal in the Committee Print. IPO traditionally has not favored legislation that would create different rules for different categories of inventions, such as products and processes. We suggest studying the option of outright repeal of Section 271(f), which was enacted in 1984 in response to a single Supreme Court decision and may not be important in today's global economy. Also, if the cases were wrongly decided, organizations in the patent community can be expected to file amicus briefs to seek clarification of the scope of existing Section 271(f). We cannot take a position on this proposal without further study.

Thank you again for the opportunity to discuss the Committee Print. We believe the Subcommittee has a good start toward a comprehensive patent law reform bill that would improve patent quality, increase certainty as to the scope of legal rights, and reduce litigation burdens.

We look forward to working with the Subcommittee as it develops formal legislation on patent law reform.

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[17] Committee Print, p.33. A few applications are not published because of their importance to national security, and those application would continue to be withheld from publication.

[18] Committee Print, p.34

[19] Committee Print, p.49

APPENDIX

IPO Resolution on Establishing a Post-Grant Opposition System

As revised at the 11/09/2004 Board Meeting and approved by the IPO Board of Directors

RESOLVED, that the Intellectual Property Owners Association supports amendment of the patent laws to establish post-grant opposition proceedings in which patentability of issued claims can be reviewed by Administrative Patent Judges of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office, provided such proceedings include the following attributes:

1. [Time for Filing]—Any request for a post-grant opposition must be made no later than 9 months after the date of the patent grant;
2. [Grounds]—Any ground of patentability, with the exception of "best mode" (35 U.S.C. § 112, 1) and derivation (35 U.S.C. § 102(f)), may be raised in the request, but no issues of priority of invention (35 U.S.C. § 102(g)) nor enforceability shall be considered;
3. [Threshold Showing]—Any party requesting initiation of an opposition proceeding shall be required to make a threshold showing of unpatentability of at least one claim of the patent before the patent owner is required to respond to the opposition;
4. [Discovery]—Discovery from a party to an opposition shall be limited to cross-examination of declarants;
5. [Additional Evidence]—Following initiation of a post-grant opposition proceeding, the party requesting the proceeding shall not be permitted to advance a new ground of unpatentability in the opposition proceeding;
6. [Claim Amendments]—The patent owner shall have the right to amend its claims in its response to the initial request and after any new prior art is presented by an opponent after filing its initial request;
7. [Other USPTO Proceedings]—No party to the opposition proceeding shall be prevented by the opposition proceeding from filing other concurrent or subsequent proceedings in the United States Patent and Trademark Office;
8. [Standard of Proof]—The standard of proof to be applied for determining unpatentability of a claim during a post-grant opposition proceeding shall be the clear and convincing evidence standard;
9. [Estoppel]—A judgment in favor of patentability of any claim in the opposition proceeding shall estop the opposer from challenging validity of that claim in other proceedings on the basis of evidence and prior art presented during the opposition proceeding;
10. [Duty of Disclosure]—The patent owner's duty of disclosure during the opposition shall be no greater than that applicable to a party in litigation before a Federal court;
11. [Length]—The opposition proceeding shall conclude within 12 months of the expiration of the 9-month post-grant request period and any patent claim surviving the opposition proceeding unamended shall be subject to day-for-day patent term adjustment for any period of pendency of the proceeding beyond the 12 months, excluding delays caused by the patent owner;
12. [Identity of Opposer]—Any party requesting initiation of a post-grant opposition proceeding must disclose its identity to the patent owner in the opposition proceeding;
13. [Infringement Suit]—In the event an infringement action is brought against an accused infringer prior to the filing of a post grant opposition request by the accused infringer, then any opposition proceedings involving the patent shall be stayed until the infringement action is finally resolved;
14. [Appeal]—Judicial review of a post-grant opposition proceeding shall be exclusively by way of appeal to the Court of Appeals for the Federal Circuit;
15. [Consolidation]—Multiple oppositions against a single patent shall be consolidated into a single opposition action following the expiration of the nine-month filing period; and,
16. [Right to Hearing]—Parties to an opposition shall have the right to a hearing before the decision of USPTO on the opposition is reached.

Mr. SMITH. Thank you, Mr. Hawley.

Mr. Lutton.

TESTIMONY OF RICHARD J. LUTTON, JR., CHIEF PATENT COUNSEL, APPLE, ON BEHALF OF THE BUSINESS SOFTWARE ALLIANCE

Mr. LUTTON. Thank you. Mr. Chairman and Members of the Subcommittee, I'm Richard Lutton, Chief Patent Counsel for Apple. I'm pleased to have the opportunity to present BSA's views on patent quality and improvement.

We commend you for holding these hearings and for your continued commitment to improving our patent system.

We believe the committee print correctly identifies the most important areas where reform is timely, and we commend you for it.

The IT industry, like so many others, is encountering the enormous costs of dealing with poor quality patents. We are also faced with a growing cottage industry of patent assertions, orchestrated by entities with no business other than acquiring and asserting patents.

Increasingly, they use the uncertainties of the civil litigation system as their primary bargaining chip. The result is that bad patents can cause a substantial litigation risks and costs. Defendants in these suits now must spend an average of $5 million defending themselves and in some courts, the average is more like $8 million.

So what can we do?

Some witnesses will tell you that patent reform is sufficient or that harmonization should be your goal. While my written testimony details our support for these goals, we believe more is required.

BSA believes the issues of the patent system cannot be addressed by changes at the PTO alone. We're extremely grateful to see the committee print recognizes the disruptive effects that unwarranted litigation can have on the patent system as a whole, and we support the approach the committee print has taken with regard to monetary and injunctive remedies.

I'd like to address three specific provisions.

First, the law of triple damages for willful infringement. We believe these punitive triple damages should be reserved for cases of reprehensible conduct, such as copying a patent.

The current gamesmanship of artfully drafted notice letters and opinion writing has little to do with ferreting out cases of truly reprehensible conduct. Instead, it creates hardships, including forcing a defendant to chose between defending against triple damages and, on the other hand, preserving the attorney-client privilege.

These hardships are used increasingly as a leverage point by plaintiffs seeking only to maximize settlement value of a case. Thus, we suggest that that prong of the willfulness test should be deleted from the draft provision.

Second, BSA strongly supports the committee print's proposals to add certainty to the measure of damages on complex products. Today, when a small feature of a multifaceted product is alleged to infringe a patent, the patentee is often—often claims damages on some percentage of the value of the entire product rather than only the infringing feature.

We believe reform is needed to rein in these damages claims. The provision included in the committee print accomplishes this goal.

Third, BSA strongly supports the approach taken by the committee print to injunctions. That provision directs courts to do what the law already says: balance equities before issuing an injunction.

Today, the courts are interpreting this statutory requirement very narrowly. Essentially the only reason for not granting an injunction is national health emergency. This interpretation of the public interest risks turning equity into a needles eye that no case in our industry can thread.

We are mindful of the concerns of some groups that these solutions to litigation issues not disrupt monetary injunctive relief for appropriate cases.

We agree with this concern. Any solution must address the problem narrowly without creating unintended disruptions in other areas, and, of course, any solution must be consistent with international norms and obligations.

Before I close, because I have a little bit of time left, I'd like to address comments on—quickly on three provisions related to PTO processes or harmonization.

First, with respect to post-grant opposition, we support the proposed procedure, but we believe the issue of timing is critical. The current committee print includes a single 9-month window after issuance for initiating an opposition.

We do not believe this is sufficient to identify patents requiring challenge.

We suggest instead two windows, with the second window opening if and when a patentee has provided notice to a specific infringer.

Only a noticed party could use this second window.

Second, with respect to the wholesale redefinition of what constitutes prior art, much of this change is not required for harmonization with a worldwide first to file system. This new definition also injects uncertainty and diminishes the scope of what's considered prior art. We believe that could have unintended negative impact on patent quality.

Finally, the committee print includes a provision significantly reducing the effect of a patent applicant's violating her duty of candor before the PTO. We question whether this provision is appropriate, especially in an era of increased emphasis on candor and full disclosure in dealing with governmental agencies and public institutions.

Thank you for the opportunity to provide input on this critical topic. We pledge our continued support and assistance.

[The prepared statement of Mr. Lutton follows:]

PREPARED STATEMENT OF RICHARD J. LUTTON, JR.

Mr. Chairman and members of the Subcommittee, my name is Richard Lutton and I am the chief patent counsel for Apple. I appear today representing the Business Software Alliance (BSA). BSA welcomes the opportunity to appear before you today on this important topic. We commend you for holding these hearings and for your commitment to improving our patent system.

The Committee print made available last week correctly addresses the two major areas where BSA thinks patent reform is now timely: improving the quality of patents issued by the Patent and Trademark Office and alleviating the disruptive effects that excessive patent litigation now poses. Overall, BSA supports the approach

and the issues identified in the Committee print and we look forward to working with as you proceed with your efforts. As I will describe in greater detail in a moment, there are areas where further clarification or changes to the language would be positive, and there are some issues that are not in the print which we believe merit consideration.

The software and computer industry is a creative engine that powers innovation and growth. The industry's products and services give individuals and organizations the tools they need to operate intelligently, efficiently and productively. Indeed, over the past thirty years, software and computers have become critical to economic success, business competitiveness and personal quality of life. People worldwide rely on the software and computer industry's tools to communicate, to connect to the world, to get things done more efficiently in the workplace, and to more fully enjoy the arts, hobbies and leisure activities.

The members of the Business Software Alliance [1] have a significant stake in this Subcommittee's work regarding patent quality and improvement. BSA represents more than twenty-five software and computer companies with annual revenues well in excess of $300 billion. Together, we hold about 100,000 United States patents. Our members are both plaintiffs and defendants in patent suits. Many of our members have established licensing programs to encourage the licensed use of technology covered by our own patents and to respect the patent rights of others. Simply put, patents play an essential role in how information technology companies do research and how they develop and commercialize products and services.

BSA members believe that the patent system is fundamentally sound and works well for most innovators, whether they toil in their garage, experiment in a university laboratory, or work for a large corporation that provides goods and services to consumers. That said, we believe that a periodic review and recalibration of the patent law is not only a good idea, but also essential to ensuring that patents remain a vital part of technological process. The current patent system has given rise to too many low quality patents being issued, and a growing pattern of assertions of weak patents that threaten to damage productive companies and stifle innovation.

BSA members approach patent reform from a pragmatic, problem-solving perspective. Our attention is focused on those areas of the law and practice that present specific challenges for our companies' day-to-day businesses. Thus, we believe that reform must address both the administrative system responsible for the issuance of patents and the litigation system responsible for enforcing patents.

1. PATENTS IN THE SOFTWARE AND COMPUTER INDUSTRY

As we enter the 21st Century, intellectual property is an ever more critical source of economic value to society, individuals, companies and governments. While copyrights have been and will remain a principal way that technology companies protect their intellectual property, I will limit my comments today to patents.

The increased importance of patents to technology companies has resulted from a mix of legal and marketplace developments.

The 1981 Supreme Court decision, *Diamond v. Diehr,* marked a turning point in the patentability of computer-implemented inventions. In that case, the Supreme Court held that a machine that transforms materials physically under the control of a computer program was patentable. The Court's decision clarified earlier rulings that had been interpreted to suggest that software programs would rarely qualify for patentability. Subsequent decisions from lower courts have further clarified the law in this area. As a result, U.S. patent applications from inventors in the software sector have steadily increased.

Equally important are marketplace trends. For example, in today's diverse technology marketplace, heterogeneity has become an important element of technology and network effectiveness. Unlike the early days of computing when consumers tended to purchase all their hardware and software from only a single firm, consumers now often build systems to meet their specific needs based on products sourced from different suppliers. The ability of these different systems to work together is essential. In this context, patents enable technology companies to integrate systems and meet consumer's needs while ensuring a return for their inventions.

Finally, changes made by Congress, especially the creation of the Court of Appeals for the Federal Circuit in the early 1980's, have brought generally greater impor-

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[1] BSA members include Adobe, Apple, Autodesk, Avid, Bentley Systems, Borland, Cadence Design Systems, Cisco Systems, CNC Software/Mastercam, Dell, Entrust, HP, IBM, Intel, Internet Security Systems, Macromedia, McAfee, Microsoft, PTC, RSA Security, SAP, SolidWorks, Sybase, Symantec, UGS and VERITAS Software.

tance to patents and more consistent respect for the property right granted by a patent.

Today, patents are a key part of virtually every technology company's intellectual property portfolio. The reasons are simple:

- Patents provide critical protection for distinctive technologies that may have been difficult to innovate but could easily be replicated without the protections of a patent.
- Patents ensure that technology companies have the opportunity to be compensated for their contributions to advances in their field of technology.
- At the same time, and reflecting the way in which our industry often operates, patent protection enables technology developers to license or otherwise share key technologies with customers, partners and even competitors, while still preventing third parties from "free-riding" on their innovation.
- Patents can encourage cross-fertilization of technology through cross-licensing.
- Collectively, patents provide a repository of accumulated knowledge that allows new generations of innovators to learn from the state of the art and, in some cases, design new solutions that further advance that body of knowledge.

2. REFORM IS TIMELY

While patents are critical tools for the technology industry, there are aspects of the patent system that present on-going challenges for our industry.

First, prior art (which is the totality of previously known technologies against which a new invention is measured to ensure that it merits a patent) is not as well documented for the computing field as it is in some other areas. In part this is because, for many years, patents were not readily available for software. It is also attributable to the nature of large-scale commercial software and computing—millions of lines of software code or billions of transistors or other components that may require significant effort to identify or understand. This makes the task of the patent examiner difficult: she must determine the patentability of software inventions without always having a complete understanding of what is already known in the art. The result can be poor quality patents.

Second, the software and computer industry, like many high technology industries, is a field with an extremely high concentration of patents. For example, there may be as many as 200 patents that are relevant to a single multifunction computer program; for example, the Federal Trade Commission recently received testimony stating that there are more than 90,000 patents that relate generally to microprocessors.[2] This concentration of patents within a technologic field presents specific challenges not only for the software industry, but also for biotechnology and other sectors.

Finally, software and computers are examples of "system" products—they comprise thousands, even hundreds of thousands, of individually functioning components and features all assembled in a package for a customer. Because many of these features could be the subjects of a patent, it is often the case that thousands of patents may be relevant to a particular computer or software product. This phenomenon—sometimes referred to as "co-location of patents"—means that any single patent covering a computer or piece of software accounts for only a small fraction of the intellectual property value of the entire system. Yet, too often, patent holders seek to recover large percentages of the revenue generated by these complex systems in exchange for only a single or small group of patents.

In combination, these issues make our industry susceptible to the problems of poor quality patents and the uncertainties of litigation. We approach reform from this perspective.

3. QUALITY PATENTS

BSA strongly supports the Committee for making improving patent quality one of its key focal points. The Committee print clearly shows that you understand this problem, and the legislative changes set out in the print would go a long way towards making this situation better. Poor quality patents, as detailed in recent studies by the National Academy of Sciences and the Federal Trade Commission, ham-

[2] See To Promote Innovation: The Proper Balance Of Competition and Patent Law Policy, Report by the Federal Trade Commission, section II.B., available at http://www.ftc.gov/reports/index.htm.

per competition and harm innovation. A questionable patent may lead competitors to forego research and development in a particular area, fearful of the risks that may be involved. Poor quality patents may also require innovators to license unnecessarily thousands of patents.

BSA believes Congress should focus on four key areas that will facilitate the issuance of higher quality patents:

(1) enhanced post-issuance processes to provide a second chance to intercept bad patents;

(2) curtailment of abusive continuation practices that lead to endless chains of patents with ever-broader claims;

(3) better support for receiving prior art, and better processes for building a contemporaneous record that reflects the extent of the examination by the patent examiner; and

(4) adequate PTO training and funding.

Post-Issuance Processes

BSA commends the Subcommittee for including within its Committee print specific and meaningful ways to improve the post issuance process.

Currently, the primary way to challenge the validity of an issued patent is through litigation, a costly and difficult approach. BSA supports the proposal in the Committee print to create a meaningful and balanced opposition procedure enabling third parties to challenge issued patents. Such a process would permit the Patent and Trademark Office to take a careful look at any challenged patent in the context of an adversarial proceeding likely to bring out the strongest arguments in favor of, and against, continued existence of the patent. This process augments a patent's initial examination and provides a second, more granular filter through which a patent may pass if it is to be used against an alleged infringer.

BSA recommends a number of areas where the language in the Committee print can be improved. Most importantly, the timeframe for initiating an opposition should be sufficiently long to permit the relevant public to identify and assess the patent at issue. The single, nine month window proposed in the Committee print is too short. In many industries, a single window will not permit accurate assessment of the validity and impact of a newly issued patent on products. We recommend instead two windows. The first window should be two years from issuance. The second window should be open for a period of one year after a patent owner sends notice of infringement. This second window is essential to allow companies to challenge a patent when, and if, it is asserted even if a prior search would never have revealed a threat from that patent.

In addition, under current law, the *inter partes* reexamination process is so restricted as to severely limit its usefulness. In fact, since the inception of this process, the Patent and Trademark Office has received fewer than one hundred requests for *inter partes* reexamination. BSA supports the Committee print provision relaxing the current law's estoppel provisions and expanding its scope to include patents filed before 1999, as well as those filed later.

Abuses of Continuation Practice

BSA supports the changes in the Committee print aimed at ending abuses of continuation practices. Currently, a patent applicant may file follow-on patent applications with broader and broader claims long after the publication or issuance of its original patent application. Through these mechanisms, some applicants keep their applications pending for extended periods while monitoring the developments in the relevant market. By modifying their claims to cover other companies' products, often after those other companies have invested significant funds in their products, such applicants can abuse the system.[3] In some cases, the patentees seek to obtain patent protection for ideas that never occurred to the applicant before seeing them in the marketplace. While this practice is currently permitted and even sanctioned by the courts, a reform curtailing the ability to broaden claims beyond the scope of the broadest claim previously published or issued would roll back significantly the invitation to abuse created by the current system.

Availability and Consideration of Prior Art

An important step toward better patent quality would be to improve the availability of prior art in the examination process. This issue is not now addressed in

[3] See generally Mark A. Lemley and Kimberly A. Moore, *Ending Abuse of Patent Continuations,* 84 Boston University Law Review 63 (2004), available at http://papers.ssrn.com/sol3/papers.cfm?abstract—id=462404

the Committee print, and we urge you to consider its addition as you proceed with your work.

Under current law, members of the public with relevant prior art information have limited options to submit that information to the examiner. The prior art may be submitted, but without comment on the relevance of what may be hundreds of pages of carefully developed disclosure. The result is that patents are often granted on the basis of incomplete prior art information as an examiner has only 17 hours, on average, to examine a patent. To address this issue, BSA believes Congress should establish a mechanism for the public to submit prior art and other information relevant to patentability, together with commentary on that art and information.

Adequate Training and Funding.

Underlying any attempt to improve the quality of patent examination must be a commitment to adequate funding for the Patent and Trademark Office. The Committee print does not address directly this persistent issue, but we are aware of and appreciate the Subcommittee's commitment on this matter. Adequate funding is inextricably tied in with permanently ending the practice of diverting patent fees to programs outside the scope of the core PTO mission. Allowing the Patent and Trademark Office to retain the fees that it generates would help ensure that the PTO is able to provide high-quality examinations and to fund further improvements.

4. REDUCE THE DISRUPTIONS CAUSED BY LITIGATION

BSA is extremely grateful to see that the Committee print recognizes the disruptive effects that bad litigation practices can have on the patent system as a whole. BSA supports the approach you have taken in the print with respect to monetary and injunctive remedies. This is an area of utmost concern to all technology companies.

The reform provisions identified in the Committee print focus on abuses of the current patent system that cannot be fixed by only quality-enhancing changes. Congress must act directly to address the most onerous sources of uncertainty in the civil litigation system.

Today, hundreds of patent infringement cases are pending against hardware and software companies, and these companies spend *hundreds of millions of dollars* each year defending themselves in these cases. This is not to say that all of these cases are without merit, but that is too often the case.

BSA commends you and strongly supports the Committee print for its approach to these issues. BSA believes there are five key areas where changes are needed:

(1) making clear that a patentee is entitled to claim damages only on the proportion of the allegedly infringing product attributable to the patent, and not including all the other features and elements that may be also contained within a multi-faceted product or system;

(2) recalibrating the standard for an award of punitive damages for willful infringement to focus on truly reprehensible conduct;

(3) clarifying and reiterating the current black letter statutory requirement that the issuance of an injunction is permissive and should be based on "principles of equity;"

(4) reducing the burden of proving a patent invalid to a "preponderance of the evidence" in cases where the Patent and Trademark Office did not consider the allegedly invalidating prior art; and

(5) clarifying section 271(f) of the existing patent statute to avoid discouraging research and development work done inside the United States.

Apportionment of Patent Value in a Complex System or Product

BSA strongly supports the Committee print's proposals to ensure damages reflect the actual harm. Today, when a small component of a multi-faceted system or product is alleged to infringe a patent, the damage claim often seeks some portion of the value of the product as a whole rather than being limited to only the value of the infringing feature or functionality. This often leads to unduly inflated verdicts or settlement demands.

BSA supports the Committee print's approach to provide courts with a statutory basis for requiring that patentees (and their expert witnesses) present damages calculations based on the proportional value of a patented invention alone, rather than on the cumulative value of all features included with a larger product. The provision included in the Committee print accomplishes this goal.

Punitive Damages for Willful Infringement

BSA supports the approach taken in the Committee print to address the issue of willful infringement, and suggest that further changes be made in the language to avoid perpetuating the need to have dueling opinions from counsel.

The current law allows the courts to impose punitive increased damages (up to three times actual damages) in cases involving willful infringement. However, the standard on which they may be awarded under current jurisprudence is far less than what is required for punitive damages in other areas of law.[4] In fact, merely knowing that the patent exists is often the basis for an allegation of "willfulness" and a claim for triple damages, shifting to the defendant the burden of showing the exercise of due care.

Trying to satisfy this duty of care, patent defendants will often seek the opinion of counsel. But reliance on that opinion in defense of a charge of willfulness requires pre-trial disclosure of that opinion to the other side, waiver of the attorney-client privilege and often waiver of privileged materials relating to the subject matter of the opinion generally. In some cases, this threatens even the integrity of trial preparations. Thus, the existence of an opinion presents defendants with a dilemma of whether to waive privilege in order to defend against the charge of willfulness or, alternatively, preserve the privilege.[5] This choice can be especially unfair when plaintiffs are allowed to use discovery obtained pursuant to the waiver to help establish or color underlying liability for patent infringement.

The uncertainty about willfulness has also led to the undermining of one of the fundamental points of the patent system: that is, disclosing to the public the invention. To avoid "knowledge" and charges of willfulness, too many companies now instruct their employees to avoid reading patents. This too can lead to reduced patent quality.

BSA believes that Congress should change the statute to make clear that punitive increased damages should be imposed only when there is evidence of reprehensible conduct, such as copying the patent or violating a prior court order. The provision included in the Committee print includes these concepts, and we support these changes. But it also includes countervailing provisions that we fear would perpetuate the current inefficient and costly practice. We fear the draft provision would perpetuate the current gamesmanship by permitting a well-drafted notice letter from the patentee to give rise to a charge of willfulness. It would also continue the practice of having to obtain counsel's opinions by making an "informed good faith belief" the touchstone of liability. We fear, based on experience, that this standard may be manipulated and does not reflect the sort of reprehensible conduct by the infringer that should warrant punitive damages.

Principles of Equity in Granting Injunctive Relief

BSA strongly supports the approach taken by the Committee print directing courts to do what the law says: balance equities before issuing an injunction. Section 283 of the current patent statute provides that the courts *"may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent."*

The Federal Circuit has in recent times interpreted very narrowly the ability of a district court to consider equitable factors (largely limited to health emergencies) when deciding whether or not to grant an injunction. Only weeks ago, the Court overturned a district court's judgment, based on the specific facts of the case, that a permanent injunction was not warranted because of the patentee's demonstrated willingness to license the patent.[6] Only in cases of public health emergencies or well-being has the Court readily considered non-issuance of an injunction. Thus, the courts seldom engage in a balance of the equities, and the granting of an injunction has become nearly automatic. Moreover, there is no automatic stay of an injunction pending appeal.

Combined, these factors mean that an accused infringer must go into a patent infringement trial prepared for the possibility of an immediate injunction at the end of trial. This leverage point is recognized and exploited by patentees who do not actually desire injunctive relief, but use its threat to extract disproportionately high payments from defendants. This problem is especially burdensome for vendors of

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[4] *See Knorr-Bremse Systeme Fuer Nutzfahrzeuge Gmbh v. Dana et al.,* 383 F.3d 1337 (Fed Cir. 2004) (Dyk, Circuit Judge, concurring-in-part, dissenting-in-part).

[5] *See generally* Mark A. Lemley and Ragesh K. Tangri, *Ending Patent's Willfulness* Game, 18 Berkeley Technology Law Journal 1085 (2003), available at http://papers.ssrn.com/sol3/papers.cfm?abstract—id=472901

[6] *MercExchange v. eBay, Inc. et al,* 401 F.3d 1323, 2005 U.S. App. LEXIS 4308, *41 (Fed. Cir. March 16, 2005).

"system products" that, as explained above, may have thousands of patented or patentable features contained within them. A trial on any of those patents threatens to shut down the entire product.

BSA applauds the Subcommittee's inclusion of a provision reestablishing an incrementally broader consideration of equitable principles than is currently being practiced by the courts. We believe this provision, while certainly not applicable in most cases, will be meaningful in a small, but economically significant, set of the most abusive patent assertions.

Burden of Proving Invalidity

An area not included in the Committee print, but which BSA thinks requires attention, is the burden of proving invalidity. Under current law, an issued patent is presumed valid and any party challenging validity must overcome this presumption with "clear and convincing evidence." This is true even when it is clear that the patent examiner did not have an opportunity to consider all of the prior art that forms the basis for a later validity challenge. To address this issue, we recommend that the evidentiary burden for challenging the validity of a patent based in whole or in part on information or references not considered during examination should be lowered to "preponderance of the evidence," to reflect the fact that the validity of the patent was not in fact fully vetted relative to those prior art references.

Disincentives to Domestic R&D

The Committee print correctly recognizes that Section 271(f), as interpreted by the Courts, presents potentially serious problems for developers of software, and indeed for developers of any information-based products. BSA supports the changes proposed in the Committee print on this issue. Given marketplace developments since the enactment of section 271(f), the Committee may want to consider repealing this provision.

In 1984, Congress added Section 271(f) to prevent companies from manufacturing components of an infringing product in the United States, and exporting those parts for assembly abroad to avoid the claim of infringement. Today, the provision has been interpreted by the courts in ways that deter domestic development of software. Under recent court holdings, a copy of a computer program made outside the United States may in some cases nonetheless be included as part of United States damages if the software is made from a "master disk" developed in the United States. If the software had been developed outside the US, this rule would not apply. The same issue may exist with respect to development of other information-based products that are made wholly outside the United States based on information developed in the United States. We believe this application of the law creates an unintended incentive to move valuable development activity outside the US, and should be clarified or removed from the law.

Harmonization

The Committee print includes a number of provisions harmonizing United States patent law with a worldwide first-to-file patent system. BSA fully supports this goal: BSA member companies derive a substantial portion of their revenues from overseas and hold numerous patents in all major jurisdictions.

We fear, however, that the provisions in the Committee print could have unintended consequences by making changes that go beyond what is needed to normalize our laws with those of other countries. Specifically, by reformulating the current law on the conditions for patentability, these changes would call in to question decades of established case law on prior art. This change could spur unnecessary litigation to reformulate standards of prior art.

Specifically, by shifting away from the current categories of prior art—especially subject matter that was used or offered for sale—the provision included in the print risks the possibility that subject matter already being used and commercialized within the United States will nonetheless be patentable by a third party. The injection of an inquiry whether subject matter was "readily and effectively accessible" contemplates that subject matter that is harder to access, even if widely deployed, will be unavailable as prior art. This could result in an unintended new gamesmanship of patenting concepts already in deployment commercially and may significantly increase the number of patent filings for all manner of inventions. We question whether this is a step that should be taken.

Instead, BSA encourages Congress to take an approach towards harmonization that brings the United States into alignment with other countries' laws without unnecessarily also diminishing the scope of prior art by excluding materials that may have been difficult to access, but were nonetheless publicly available.

Duty of Candor

The Committee print includes a provision significantly reducing the effect of a patent applicant's violating her duty of candor in front of the Patent and Trademark Office. We question whether this provision is appropriate, particularly in this era of increased emphasis on candor and full disclosure in dealing with governmental agencies and public institutions.

The purpose of the duty of candor is to compel a patent applicant to provide the Patent and Trademark Office with as much information known to the applicant as may be helpful to the examiner. The related litigation defense of inequitable conduct asks whether the patentee effectively commit fraud on the Patent and Trademark Office by intentionally withholding such key information that the PTO's ability to examine the patent was compromised. This current structure provides a powerful incentive for applicants to act with utmost candor in front of the Patent and Trademark Office.

The changes included in the Committee print risk undermining this incentive in a number of ways. First, by moving to a "but for" test for inequitable conduct, the proposed law would lower the incentive for an applicant to err on the side of over-inclusion in disclosure, thus potentially depriving the patent examiner of information that could be material to examination. In addition, the changes to existing law on who can be held liable for inequitable conduct seem to create the risk that parties could participate in a fraud on the Patent and Trademark Office, but avoid any adverse consequences of such behavior by transferring the patent to a third party. Finally, by removing the issue of breach of duty of candor from the court and placing it with the Patent and Trademark Office, the proposal risks further overloading the PTO.

We do believe, however, that it could be efficient and useful to bifurcate the issue of inequitable conduct in litigation and present that issue solely to a court after liability has been adjudicated.

CONCLUSION

Thank you again for the opportunity to provide input on the critical topic of patent quality and improvement. BSA strongly supports your efforts and commends you for the excellent Committee print. We look forward to working with you in your efforts to improve the United States patent system and ensure that it continues to serve this country's great interest in promoting innovation and providing the public with the benefit of that innovation.

Mr. SMITH. Mr. Kushan?

TESTIMONY OF JEFFREY P. KUSHAN, SIDLEY, AUSTIN BROWN AND WOOD, LLP, ON BEHALF OF GENENTECH

Mr. KUSHAN. Thank you, Mr. Chairman. I'm appearing today on behalf of Genentech, a biotech company based in south San Francisco, California.

Genentech appreciates the opportunity to provide its views to you on the issue of patent law reform.

We commend you, Mr. Chairman, along with Mr. Berman and Ms. Lofgren, and Mr. Boucher and your colleagues for starting this important legislative discussion. We also want to thank the Committee leadership, in particular Representatives Sensenbrenner and Conyers for their significant efforts to curb the diversion of patent fees.

Patent reform is a timely and important issue. Like many other companies, the health of the patent system is a critically important issue for Genentech.

To appreciate Genentech's perspective on the patent system, you have to understand the challenges of developing a new biotech drug.

Biotech drug development is an extremely risky, expensive, and long process. Genentech scientists must not only discover a new

viable drug candidate, but must spend many years testing the drug to prove it's safe and effective.

It must also figure out how to produce the drug in large volumes, while preserving the safety and effectiveness of that drug. The time it takes from discovery to market entry routinely exceeds a decade or more.

A good recent example is Genentech's Avastin product. This product was—the product development effort for this product started in 1989. Avastin was approved in 2004. That's 15 years of effort and hundreds of millions of dollars of cost to getting this product to market. And it wasn't until the FDA approved this product was it clear that this product would be a commercial success.

The length of and the unpredictable nature of the drug development process raises important patent implications for Genentech.

First, the effective patent life for a biotech drug is, as a consequence of this long development process, very short.

Second, it is very challenging to ensure that the patents filed in year one of the drug development process are going to protect the drug product when it finally reaches the market 10 or 15 years later.

The patent system plays a critically important role for the American public as well. Patients are the direct beneficiaries of the patent system. It is the patent system that makes it commercially feasible for companies like Genentech to discover, develop, and bring to market new drugs to treat unmet medical needs. It should not be surprising that Genentech is a frequent user of the patent system. They file hundreds of applications every year, and have been granted nearly a thousand U.S. patents.

Genentech also has its fair share of patent litigation, both offensive and defensive. Genentech, thus, has a perspective of a company that has to protect its innovations and a company that must frequently resolve conflicts over patents owned by others.

In general terms, Genentech sees three significant challenges to the health of the patent system.

First, the overall health of the patent system depends on the PTO issuing valid patents in a timely fashion. If a mistake is made by the PTO, it cost a company accused of an infringement millions of dollars to fix that mistake.

Second invalid patents are not the only problem. Delays in patents issuing is a significant problem, and is very disruptive in the market. And it's disruptive to the process of planning for development.

The PTO's ability to improve its examination process is hindered by the ongoing problem of fee diversion. It's also hindered by the structure of the current fee schedule and by certain PTO practices, such as the restriction.

In the absence of an effective—the second major problem we see challenging the health of the patent system is the absence of an effective administrative procedure to review the validity of a patent.

The only practical option today for challenging the validity of a patent is litigation in the Federal courts. That, as I said, can cost several million dollars. The other members of the panel have also observed this.

An effective administrative procedure for reviewing patent validity is long overdue. Genentech believes the system proposed in the committee print is a good start. However, several changes are needed to make this a more balanced and effective procedure, and we invite the Subcommittee to review our written testimony which sets out a number of the improvements we think are appropriate. I'll just briefly note two significant ones.

First, the way that post-grant oppositions would be started and conducted as set forth in the committee print must be changed.

The proposed system would permit an opposer to start a proceeding simply by paying a fee. The patent owner would then have to convince the Patent Office to not to conduct the proceeding because it's meritless. This approach will induce far too many unjustified opposition proceedings. It also unfairly puts the burden on the patent owner to stop the proceeding instead of putting the burden on the opposer to justify starting the proceeding.

The second concern concerns the authority the PTO should have to regulate the conduct of parties in the proceeding.

We believe the PTO should regulate the conduct of parties using the same authority that courts use to regulate the conduct of parties in litigation. Events that occurred during the opposition proceeding should not be capable of rendering a patent unenforceable, but if warranted should be addressed by conventional sanctions.

The third factor adversely affecting the health of the patent system is the inefficient and unpredictable process of resolving patent disputes through litigation in the Federal courts. We acknowledge that the Federal Circuit has improved much in the area of patent standards and clarity, but there's a lot left to be done.

As a result, it's very difficult to predict if a patent will be held valid, infringed, or enforceable. It's also impossible to predict what the damage liability would be when you are found to infringe a patent.

The uncertainty in today's litigation environment unfortunately is being exploited by many to distort the value of patents. In this respect, we'd strongly support reforms to three areas. Willful infringement. We strongly support reforms to that topic. We believe more must be done to regulate how that type of pleading can be raised in litigation, because there are litigation abuses possible.

Second, we think that reforms are need to the inequitable conduct doctrine to adopt a much more objective standard.

The last point I'd like to make if you would give me 15 to 20 seconds is to address the issue of injunctive relief. And I apologize for my inefficiencies compared to the first two sectors.

Mr. SMITH. That's okay. We'll grant you that extra 30 seconds.

Mr. KUSHAN. Thank you. The specific issue raised in the committee print is who bears the burden of justifying the grant of an injunction when a patent has been proven valid and infringed. Genentech sees no reason why the burden should not be placed on the shoulders of a proven infringer of a valid U.S. patent to prove why an injunction should not issue. That change that's being proposed would undo more than a century of precedent and a very sound public policy reason, which puts the burden on the infringer to justify why there is not going to be an injunction. We're talking, as has been mentioned before, about permanent injunctions. We

are not insensitive to the concerns about litigation problems, and we're willing to work with the Committee to explore options to address the abuse that is possible through that litigation environment that exists today.

And finally, I'll just indicate we do support moving to a first invent system, and we're willing to work with the Committee to improve the language to do that in the committee print. Thank you.

[The prepared statement of Mr. Kushan follows:]

PREPARED STATEMENT OF JEFFREY P. KUSHAN

Mr. Chairman and distinguished Members of the Subcommittee,

My name is Jeff Kushan. I am a partner in the Washington office of the law firm of Sidley Austin Brown and Wood, LLP. I am also a registered patent attorney, and specialize in the areas of biotechnology, pharmaceuticals and software-related inventions.

Today, I have the privilege of offering testimony on behalf of Genentech, Inc. Genentech was the first biotechnology company, founded in 1976, in South San Francisco, California. Genentech's mission is to be the leading biotechnology company, using human genetic information to discover, develop, manufacture and commercialize biotherapeutics that address significant unmet medical needs. Genentech presently markets 13 products, with more than 30 more in development.

Genentech very much appreciates the opportunity to provide testimony to the Subcommittee today on the topic of patent law reform. We commend you, Mr. Chairman, for your initiative in opening this legislative dialogue on the topic of patent law reform. We also want to recognize the past efforts of your colleagues on this topic, including Mr. Berman and Ms. Lofgren.

Genentech is a company that was founded on innovation. It should come as no surprise that patent protection and the health of the patent system are thus crucially important to Genentech. The availability of patent protection for its inventions is an important consideration to Genentech in its research and product development activities. Assured patent exclusivity encourages the investment of hundreds of millions of dollars each year on efforts to research and develop new biotherapeutics.

Genentech also recognizes that the patent system faces several serious challenges.

First, the Patent and Trademark Office (PTO) faces serious challenges in performing its statutory function of issuing valid patents in a timely fashion. The primary cause of this problem is the ongoing problem of fee diversion. The unpredictable nature of patent fee diversion has made it difficult for the PTO to engage in the long-term restructuring of its operations that is necessary to make the patent examination process more reliable and efficient. We cannot stress more emphatically that the most important legislative deliverable for Congress in the effort to improve the patent system is to ensure predictable and adequate funding for PTO operations.

Second, the current model used by the PTO in conducting examination of patent applications needs to be seriously reevaluated. Presently, every application that is filed today is placed into the queue for examination. This requires the PTO to budget for and engage in an unnecessary examination of many thousands of patent applications. The United States is unique in the world in this respect—every other major office conducts examination of applications only upon request and payment of a fee. Exacerbating this problem is the approach the PTO employs in "restricting" patent applications. The PTO requires applicants to file additional patent applications when it believes a first application has claimed more than one patentably distinct invention. The PTO examiners, however, use an exceedingly narrow and strict standard for restriction, which has led to a multiplicity of unnecessary filings in the biotechnology area. These extra applications make coherent and efficient examination of inventions very difficult, and contribute to an artificial backlog of unexamined applications. Restructuring the patent examination process to address these two problems would result in examiners having more time to examine each invention, and would thus significantly improve patent quality. We encourage Congress to pursue such legislation in conjunction with the current legislative effort.

Finally, the process of resolving disputes over patents through litigation in the Federal Courts produces a high degree of uncertainty for businesses such as Genentech. Although the Court of Appeals for the Federal Circuit has done much over the years to clarify the requirements and standards for patentable inventions, there still remains a significant amount of uncertainty in how those requirements and standards will be applied to biotechnology inventions by trial courts and juries.

As a result, it remains difficult to predict if a patent will be held valid, if it will be infringed or if it will be held unenforceable. Similarly, it is often impossible to predict what damages a company will face if it is found to infringe a patent. The uncertainty in today's patent litigation environment, unfortunately, is being exploited by certain patent owners to distort the value of their patent rights and to undermine the legitimate use of patents. Reforms to the patent system—both as to the standards governing patent validity and as to outcomes and consequences in litigation—are necessary and timely.

Your hearing today provides a timely opportunity to engage on the issue of legislative reform to our patent system. We welcome your initiative in starting this discussion, and believe it will yield fruitful results.

The draft committee print proposes reforms across a broad spectrum of elements of the patent system. Our comments today will focus on those areas of greatest importance to Genentech; namely, proposed reforms to the rights and remedies provided with the grant of a patent, standards governing patentability, reforms to the inequitable conduct doctrine, and post-grant opposition procedures.

In general, Genentech supports reforms in many of the areas addressed in the Committee Print. However, certain proposals, particularly those that could operate to deprive the owner of a valid U.S. patent of its ability to prevent the unauthorized use of a patented invention, would seriously alter the nature of the patent right. Genentech opposes reforms of this nature, as they would undermine the foundation upon which many of this company's business decisions have been based; namely, the guarantee of exclusivity.

PROPOSED REFORMS TO THE STANDARDS GOVERNING INJUNCTIVE RELIEF

Section seven of the Committee Print would fundamentally alter the nature of a United States patent by altering the standards governing entitlement to permanent injunctive relief under section 283. While Genentech is sympathetic to the problems associated with the unpredictability of patent litigation, it cannot support legislation that would call into question the basic premise under current law that infringement of a valid patent can be enjoined.

Section 7 begins by incorporating into section 283 in express terms the standard governing entitlement of any litigant to injunctive relief. However, section seven then would prohibit a court from presuming that there will be irreparable harm to the patent owner as a consequence of a finding of infringement of the patent. The proposed legislation also directs courts to consider evidence that would support or negate any of the equitable factors governing the award of injunctive relief, including whether or not the patent owner makes use of the invention.

Section seven of the Committee Print thus would overrule the well-established and long-standing precedent that the owner of a patent is presumed to be irreparably harmed by an infringement of a valid United States patent. The existing presumption is based on sound public policy reasons, and we see no justification for altering this existing precedent. The reason is simple—the value of a patent derives from its status as a property right. There is nothing more essential to the character of the patent as a property right than its capacity to prevent unauthorized use of the patented invention.

More than a century ago, our courts recognized that the capacity of a patent to prevent the unauthorized use of the patented invention was the fundamental attribute that gives the patent its economic value. This premise has been repeatedly affirmed by courts since that time. See, for example, *Polymer Technologies, Inc v. Bridwell,* 103 F.3d 970 (Fed. Cir. 1996) ("The right to exclude others from a specific market, no matter how large or small that market, is an essential element of the patent right"). The recognition that the right to exclude is the essential attribute of the patent right gave rise to the legal presumption that is a foundation of the U.S. patent system; namely, that the owner of a valid United States patent is irreparably harmed by an infringement of that *valid* patent, in the absence of any further evidence. There is no sound reason for not continuing to rely on this premise. Genentech also sees no reason why the burden should not be placed on the shoulders of the infringer of a *valid* United States patent to show why that infringer should not be enjoined from its continued infringement of the patent.

The specific issue implicated by the proposed modifications to section 283 is who bears the burden of putting forward evidence to establish that an injunction is appropriate once the patent has been fully adjudicated and found to be valid and infringed. The standard thus speaks to *valid* patents, not to patents that are of questionable validity. It also concerns the question of permanent injunctive relief, not preliminary injunctions that may be awarded pending resolution of the litigation over whether the patent is valid or infringed. As a standard governing the burdens

that are to be applied with respect to *valid and infringed* patents, it is appropriate to maintain the standard in the form it exists today. Genentech believes the law appropriately places the burden on the shoulders of the infringer to establish why an injunction should not be granted. Whether that infringer is able to do so or not will turn on the facts and circumstances of each case.

Genentech is not insensitive to the concerns expressed by many over the disruption of ongoing business activities as a consequence of the grant of a permanent injunction. Genentech certainly has its fair share of defensive patent litigation. The question of permanent injunctive relief, however, is one that is best left to the courts upon the body of precedent that exists today. Genentech remains open, of course, to measures that remove some of the uncertainty of patent litigation, or which address the truly unique situations faced by those who advocate for change of the law.

In this respect, Genentech encourages the Congress to focus on the specific and unique concerns being expressed that have led to this proposal. For example, one scenario that has been identified is the potential grant of a permanent injunction in favor of a patent owner that has taken no steps to bring a competing product to market, or who has extensively licensed the patent on a non-exclusive basis to other parties, and who can be fully compensated through money damages. Genentech believes courts presently do consider such factors in determining whether to award a permanent injunction. Similarly, some concerns arise from the situation of a company facing the requirement to immediately comply with an injunction issued by a District court. In many instances, courts will stay the effect of the injunction pending appeal of the judgment on validity or infringement, which provides the infringer the time needed to alter its product or take other steps.

The most significant concern, however, appears to be the use by a party that is not in the market of the accused infringer of the threat of an injunction solely for the purpose of increasing the risk of liability to a manufacturer, and to increase the amount of a potential settlement. In that setting, significant questions of validity or enforceability of the patent often exist. These problems have led to more refined jurisprudence addressing issues such as prosecution laches, enhanced obligations for written description and the like. Certainly, if a patent owner elects to seek injunctive relief against an accused infringer, and causes harm by such an assertion, that party should face some consequences if the patent is shown to be invalid, unenforceable or not infringed. One approach may be to simply alter the amount of discretion given to courts to award fees and costs incurred in defending against such a claim, and to ensure that such liability extends to all parties that stand to gain economically from the infringement action. Congress also may wish to consider legislative solutions that specifically address the unique circumstances faced by specific industries, but which will leave intact the well-established body of law that ensures that a patent owner can rely on the presumption of irreparable harm stemming from proven infringement of a valid U.S. patent to establish entitlement to permanent injunctive relief. Genentech believes such approaches may prove to be a more fruitful avenue in deliberations for reform than the approach taken in section seven of the Committee Print.

PROPOSED REFORMS TO THE STANDARD FOR WILLFUL INFRINGEMENT

In contrast to its views on proposals that would alter the standard for injunctive relief, Genentech does support reforms to the law governing the doctrine of willful infringement. The Committee Print proposes to alter the standard by identifying three specific types of actions as being indicative of situations of "willful" infringement of a patent that are sufficient to justify the award of enhanced damages.

Genentech believes that the articulation of the three scenarios found in the legislation is a sound basis for proceeding. Genentech, however, believes that these scenarios should be the only situations that warrant a finding of "willful" infringement. Part of the problem with the existing standard is that it is difficult to ascertain what will constitute willful infringement under present law. Making a more specific and explicit definition of those acts that will constitute willful infringement will help address part of the problem. Genentech also supports the approach in proposed legislation that precludes a court from drawing an inference of willful infringement from the absence of opinion of counsel, and that willful infringement may not be established solely upon proof of knowledge of the patent by the defendant prior to suit.

The changes proposed by section six of the Committee Print, however, do not go far enough. A significant problem with the existing willful infringement doctrine is that parties often claim willful infringement simply as a litigation tactic. The claim then manifests itself in demands for production of opinions of counsel as to the validity or infringement of the patent, and efforts to place into evidence information

that is unnecessary and irrelevant to the question of infringement. Genentech believes that in addition to establishing more objectively defined standards for willful infringement, three additional measures are needed.

First, the law should preclude a court from addressing the question of willful infringement until after a party had been found to have infringed the patent. Taking up the question of willfulness only after a party has been found in a final unappealable judgment to have infringed the patent will go far in helping to curb some of the abuses that exist in today's modern litigation environment. Second, the question of willfulness should be addressed only by the court, and not by a jury. Finally, the law should preclude a party from attempting to obtain discovery of opinions of counsel incidental to a claim of willful infringement until after the court has first determined that infringement was established. With these additional changes, Genentech can support the reforms to willful infringement being proposed in section 6 of the Committee Print.

REFORMS TO PRECLUDE LATE CLAIMING OF INVENTIONS

Section 8 of the Committee Print would treat as unpatentable certain types of claims that are presented at a certain point in time. The legislation appears to be focused on the problem of parties that present broad claims long after an initial application has been filed, with the intent of capturing the intervening market entry by a competitor who believed that there would not be a patent obstacle. While Genentech is sympathetic to some of the concerns raised with respect to late-presented claims, it does not believe the proposed legislation will provide a practical solution, and instead will create significant problems for legitimate patent applicants.

Genentech notes that under existing PTO practices, biotechnology patent applicants are often subjected to extensive restriction requirements. This means that for each invention that is pursued in a first application, Genentech often must file dozens of additional applications to obtain meaningful and sufficient claim coverage. Under existing law (35 U.S.C. 121), Genentech has the right to defer the filing of these additional applications. If the law required the immediate filing of dozens of voluntary divisional applications, as proposed in the Committee Print as a solution to the late-claiming problem, it would place unjustified additional expenses on biotechnology applicants such as Genentech. More significantly, in many cases, new questions of law or practice arise during the examination of an application. These new standards not only cause applications to undergo a protracted examination process, they also clarify what types of claims a patent applicant may pursue.

The proposed solution also suffers from the practical problem of determining when a claim is "broader" than a claim that was published, issued or presented in a priority application. In most instances, claims will be both broader and narrower than previously presented claims. Forcing the patent examiner, and then the courts, to determine if sets of claims are broader or narrower than earlier filed claims will present immense challenges. Moreover, while many other provisions in the legislation would go far in eliminating uncertainty in the standards governing patentability, this measure would have precisely the opposite effect.

For these reasons, Genentech generally opposes the approach reflected in section 8 of the Committee Print, and encourages the Committee to explore other ways of curbing the problem of late claiming. Genentech also notes that courts are taking steps to address late-claiming situations. See, e.g., *Symbol Technologies v. Lemelson,* 277 F.3d 1361, 161 Ed. Law Rep. 57, 61 U.S.P.Q.2d 1515 (Fed. Cir. 2002).

REFORMS TO THE STANDARDS GOVERNING ENFORCEABILITY OF PATENTS

Section five of the Committee Print proposes to reform the doctrine governing inequitable conduct. Genentech strongly supports legislative reforms in this area.

Section 282 provides that a party accused of infringement may raise a defense that the patent is unenforceable. Unenforceability is a defense distinct from invalidity of the patent or from non-infringement. It operates to preclude the patent owner from enforcing a patent that is otherwise meritorious—meaning that the invention claimed in the patent is novel, not obvious, useful, and adequately described. It has evolved over the years from several equitable doctrines, the most dominant of which is the assertion by a defendant that the patent is unenforceable because the patent owner committed a fraud on the PTO in the process of obtaining the patent. From this legitimate foundation, the doctrine of "inequitable conduct" has arisen and flourished to an inappropriate degree.

As several courts have observed, claims of inequitable conduct have become what is justifiably labeled as a "plague" on modern patent litigation. Inequitable conduct is routinely raised in patent cases, and often is based on the flimsiest of assertions.

The reason is simple—by pursuing this defense, a patent on an invention that is otherwise meritorious can be nullified by making it impossible to enforce.

The inequitable conduct doctrine, however, has created significant problems for patent applicants and for the PTO during the examination of applications. The most significant is that communications between the patent applicant and the patent examiner are now a contorted and restricted dialogue, primarily because of the risk that these communications made honestly and in good faith will be turned into a story of inequitable conduct when the patents are put into litigation in the future. Concerns about creating a foundation for a claim of inequitable conduct may cause applicants to be overly inclusive in citing information to the PTO. This often results in situations where the patent examiner is given an immense amount of information solely for the purpose of foreclosing a claim that the applicant was concealing information from the examiner, thereby imposing unnecessary burdens on the patent examination process. Moreover, applicants can be put into a "Catch 22" situation in that they can later be accused of "burying" a reference if they cite many references to the PTO to satisfy their Rule 56 obligation as defined by the courts.

Plainly, reforms to this doctrine are necessary. In general terms, Genentech would support reforms that provide that a party could not raise an assertion of inequitable conduct in respect of a patent unless at least one claim of the patent were shown to be invalid on the basis of the disputed prior art or information. Such a change would establish a more objective threshold finding of significance for the disputed subject matter and would supplant the existing "materiality" standard. Genentech would also support retaining the requirement in present law that there be a distinct finding of a specific intent of the applicant to mislead the PTO. Such reforms would change how parties could raise inequitable conduct assertions in litigation, and would reduce the opportunistic uses of such pleadings in litigation.

Genentech also would support enactment of measures to ensure that patent applicants are forthcoming during the original examination of patent applications. For example, Genentech would support measures that provide the PTO or the courts with some authority to sanction parties which it had determined had engaged in misleading or inappropriate conduct before the PTO. The sanction of unenforceability of the patent is not the only type of sanction that can be employed to ensure that parties act with good faith and candor in the PTO. The approach taken in the Committee Print reflects the type of authority that may prove useful in this regard, although Genentech believes the present language of section 6 can be substantially improved.

Genentech also believes that a more transparent examination process can also be pursued in conjunction with these reforms. Genentech notes that the United States patent system is structured to deliver reliable results in a cost-effective and timely manner. Examination is conducted on an *"ex parte"* basis—meaning that the PTO and the patent applicant are the only participants in the examination process. The advent of publication of patent applications prior to grant from the 1999 American Inventors Protection Act (AIPA) has shed some light onto ongoing examinations, but, fundamentally, the patent examination process remains closed to substantive participation by parties other than the patent applicant.

Practical considerations mandate that this model continue. The PTO, given its resource constraints, simply cannot administer a system that permits third parties to intervene in the examination of pending applications. Experiences in other countries that do permit substantive intervention in the examination of applications are uniformly negative. These experiences show that in many instances, third parties intervene to simply delay the issuance of a patent, which disrupts business expectations of patent applicants and consumes limited patent office resources. Allowing that type of public intervention in the examination of pending U.S. applications would create immense practical problems, given the volume of applications now pending before the PTO, and the limited amount of examination resources that are available.

However, there is no good basis for not publishing all applications 18 months after they have been filed. Publication provides access to the public of the contents of the application during the examination process. Genentech thus would support amendments that would mandate 18-month publication of all applications, and which enable third parties to submit information, accompanied with a brief explanation of the relevance of the information, on issues implicated during the examination of the application. Of course, that right to submit information must not entitle the third party to disrupt the examination process, or to formally oppose the grant of the patent. Genentech believes that such safeguards as 18-month publication of all applications and limited third-party submissions during *ex parte* examination, combined with the opportunity of more third-party involvement during post-grant opposition proceedings, warrant revisions to the inequitable conduct standards that give rise to so many baseless claims today. Such reforms also would place the U.S. more on

par with the practices of other major countries including those that are members of the European Patent Convention and Japan.

REFORMS TO THE STANDARDS OF PATENTABILITY

Sections 2 to 4 of the Committee Print would make substantial changes to portions of title 35 that govern patent eligibility. In principle, Genentech supports the approach taken in these sections, with certain exceptions.

Genentech supports reforms that would implement a "first inventor to file" standard in the U.S. patent system. Such a standard would address what many improperly perceive to be an assured right of a first inventor to obtain a patent. For reasons articulated well by the National Academies of Science in their 2004 report on the patent system, the existing "first to invent" standard creates immense challenges for patent applicants and the public, in part, because it requires the incorporation of many subjective criteria for patentability into the patent system. It also necessitates inventorship contests, known as interference proceedings, which are expensive, complex and usually result in award of the patent to the first inventor to file an application. Given the low frequency of these types of conflicts, the expenses associated with them, and the immense record keeping requirements they implicate, there is no sound reason for not shifting to a first inventor to file standard.

The reforms being proposed would retain a requirement that any applicant for a United States patent be filed by or on behalf of an inventor of the subject matter being claimed. This approach will ensure that the interests of inventors will be effectively protected. Genentech supports these types of safeguards in the patent system. With such a standard, however, conflicts may still arise over entitlement to a patent. Section two of the Committee Print would propose to address these conflicts through an interference proceeding. Such proceedings, as proposed under a modified section 135(a), would be based on "disputes" over who is an inventor. Genentech believes a more precise and specific standard, with specifically articulated outcomes of such a proceeding, is needed, rather than what has been proposed for section 135(a). In particular, a dispute over entitlement of a true inventor to a patent should be based on a proof of derivation of the invention by the first party to file from the inventor. The proceedings should result either in an entitlement to joint and several ownership of the patent in dispute, or in the award of a patent to the second inventor that files an application. Genentech is prepared to work with the Committee to devise an appropriately focused and limited procedure for resolving such disputes.

The conversion to a first-inventor-to-file patent system necessitates reforms to sections 102 and 103 of the patent statute, among other provisions. The approach taken in section two of the Committee Print is a good start toward these reforms. A number of specific issues, however, are not satisfactorily addressed in the proposed legislation.

- The revised law should confirm that subject matter in a published patent application or in a patent shall have prior art effect as from the actual or effective filing date of the patent or published application only if that subject matter has been described in a manner that complies with section 112, first paragraph. This will maintain the existing law that provides that the "secret" prior art effect of a patent or published patent application (i.e., for the period before the contents of the patent application are publicly known) is to be limited to that subject matter that has been described in a manner sufficient to justify the grant of a patent on that subject matter. Revisions to proposed section 102(d) of title 35 are required to give effect to this change.
- The standard for public accessibility of information to qualify that information as prior art should be specifically exemplified using more objectively defined criteria. In particular, Genentech would support revision of proposed section 102(c) to incorporate more precise and objective language for the concepts of "reasonable and effective accessibility" of prior art. Genentech also believes it will be important to exemplify these concepts in the legislative history of the proposed legislation.
- Genentech supports elimination of the "best mode" requirement of section 112, first paragraph. This measure has proven unnecessary and unhelpful in the patent system, particularly in view of the enhanced obligations on disclosure imposed by modern judicial interpretation of the requirements for written description and enablement under section 112. Genentech encourages the Congress to affirm the independent and distinct nature of these two remaining elements of section 112, first paragraph, as part of the legislative history explaining the reform that would be made to this provision of title 35.

Certain changes being proposed, however, are unnecessary to implement a first-inventor-to-file system. For example, Genentech would oppose amendments to section 101 of title 35, which are unnecessary to give effect to a first-inventor-to-file system. Genentech also encourages the Subcommittee to further evaluate all of the changes being proposed to ensure that the most efficient path is taken to implementing these reforms. Changes that are not necessary to give effect to the new standard should be avoided, particularly when they may disrupt long-established concepts and definitions.

POST-GRANT OPPOSITION PROCEDURES

As we have previously testified before this Subcommittee, Genentech strongly supports legislation that would create a cost-effective, vigorous and fair procedure to review the validity of issued patents. Our experiences teach us that claims of infringement of invalid patents are increasing, and have the potential for causing significant, unwarranted business disruptions. A cost-effective procedure that allows for robust participation by third parties yet is appropriately limited to avoid prejudice and the problems of litigation before a Federal court, would provide immense value for patent owners and the public alike. Genentech thus supports the effort of the Subcommittee to establish an effective and efficient post-grant opposition procedure, and to revise the *inter partes* reexamination authority to make that system viable.

As Congress begins its deliberations on section 9 of the Committee Print, it should keep certain fundamental principles in mind. First, there is no right of a member of the public to retain and enforce an invalid patent. It also is not appropriate to permit entities to use the high cost and complexity of patent litigation to forestall discovery of the invalidity of a patent. Invalid patents impose an immense and unjustified cost on American businesses, including companies in the biotechnology industry.

Second, we believe a properly designed system must incorporate safeguards to ensure that it will not be abused by third parties. As noted in our prior testimony, the devil is in the details. The challenge is for Congress to create a procedure that provides a rigorous and balanced inquiry into the validity of a patent, and to make that procedure feasible for the PTO to administer. A system that permits a third party to paralyze a patent by initiating an open-ended administrative proceeding would seriously undermine the incentives and purpose of our patent system. Likewise, a proceeding that becomes comparable in complexity, burden and cost to litigation in the Federal courts would yield no benefits.

Finally, a patent review system administered by the PTO must remain focused on those issues that the PTO has special expertise in evaluating, and work within the practical constraints of an administrative proceeding that is designed to be efficient but thorough. In particular, the system should avoid having the PTO evaluate questions of compliance with the "best mode" requirement of 35 U.S.C. § 112, or compliance with the duty of disclosure under 37 CFR § 1.56. The system should also build on the recognition that the PTO can bring a special technical expertise to independently evaluate scientific and technical questions that bear on patentability. At the same time, the PTO is not well-equipped to manage contentious proceedings that will turn on critical evidentiary questions. As such, we encourage the Congress to incorporate safeguards that take account of these limitations, and to not create a system that the PTO is incapable of effectively managing, or which leads to unjustified costs.

It is appropriate for this Congress to take up the task of devising and implementing an effective post-grant opposition system. Options that exist today—so-called *ex parte* and *inter partes* reexamination—do not present a viable alternative to litigation in the Federal courts, primarily because these procedures do not provide third parties with a fair and balanced degree of participation relative to patent owners. The fact that only a handful of patents have been the subject of *inter partes* reexamination proceedings, despite the existence of thousands of eligible patents, is a telling indication of the problems with the current system. The absence of a fair and efficient administrative procedure to review patent validity makes it possible for owners of invalid patents to use the often enormous expense of patent litigation to effectively shield invalid patents from challenge. An improperly granted patent that cannot be reviewed in a cost-effective manner creates unjustified burdens and risks for American companies, including those in the biotechnology industry.

Genentech believes that the availability of an appropriately structured post-grant review system will enhance public confidence in the patent system, and provide the public with a much needed administrative alternative for resolving questions of patent validity. The recent reports from the Federal Trade Commission (FTC) and the

National Academies of Science (NAS) reinforce this conclusion. Each organization recognizes that the PTO has a special expertise in evaluating certain patentability issues, such as anticipation, nonobviousness, enablement, written description and utility and that an administrative patent validity review proceeding can be conducted more rapidly than litigation in a Federal court. They correctly find that the public would significantly benefit from the availability of a procedure that does not present the burden, duration and associated expenses of patent litigation. These organizations also appreciate that any new system should not permit third parties to harass patent owners, or initiate groundless attacks on patents.

Past Congressional efforts to establish a procedure by which the PTO can review the validity of an issued patent have been well-intentioned, but have not produced a procedure that is viable. The first such system adopted by Congress was the *"ex parte"* reexamination system, enacted in 1982. In the *ex parte* reexamination system, any person, including the patent owner, may commence a reexamination of any issued patent on the basis of a patent or a printed publication that raises a substantial new question of patentability. See, 35 U.S.C. § 302. The *ex parte* reexamination procedure, like original examination, is a closed procedure—only the patent owner and the PTO participate substantively in the proceeding. As a result, most third parties avoid use of this procedure for commercially significant patents, since it does not afford those third parties a meaningful opportunity to participate in the proceeding.

In 1999, Congress created an enhanced version of reexamination, termed *"inter partes"* reexamination. The *inter partes* reexamination procedure does provide more of an opportunity for third parties to participate in the proceeding. However, due to the limitations built into the system, this "enhanced" version of reexamination has fallen short of expectations. The limited number of *inter partes* reexamination requests that have been commenced—despite the fact that hundreds of thousands of otherwise eligible patents have issued since enactment of the legislation—suggests that the design of this procedure will continue to limit its use by the members of the public. The most significant deficiencies of the *inter partes* reexamination system can be summarized as follows.

- It is not possible to use the procedure to review patentability issues that are most commonly encountered in biotechnology patents and applications; namely, compliance with 35 U.S.C. §§ 101, and 112, first paragraph. It has been our experience that issues of compliance with the written description and enablement provisions of 35 U.S.C. § 112, first paragraph, and the utility requirement of § 101, frequently are significant inquiries affecting the validity of many biotechnology patents and patent applications. Not permitting these grounds to be raised in a post-grant review procedure renders the system far inferior as an alternative to litigation in a Federal court.
- The law imposes two distinct "statutory estoppels" that in combination make the procedure unattractive as an alternative to litigation in a Federal court. The first, found in 35 U.S.C. § 315(c), prohibits a requestor from raising in a Federal court any issues of validity that "could have been raised" at the time of the request for reexamination in view of art known to the requestor. This broad estoppel attaches by the mere filing of a *request* for *inter partes* reexamination. The second "estoppel" is found in an uncodified section of the AIPA (§ 4607 of the Intellectual Property and Communications Omnibus Reform Act of 1999, as enacted by § 1000(a)(9) of Public Law 106–113), and is designed to prohibit a third party who participates in a reexamination proceeding from later contesting the legitimacy of any "facts" determined in the proceeding. These statutory estoppel provisions impose an unacceptable price on use of the *inter partes* reexamination procedure in almost all situations.
- The *inter partes* reexamination system does not permit third parties to use certain evidentiary procedures that would ensure that the procedure is sufficiently rigorous. For example, it is not possible to cross-examine expert witnesses used in the proceeding or direct questions to the opposing party.
- Finally, the system cannot be used to review issues of validity involving patents issued on applications filed before November 29, 1999. We note that this limitation, in particular, has rendered the system of marginal value to many companies in the biotechnology industry, in part because there still remain a significant number of biotechnology patent applications pending before the PTO that were filed before this date.

These limitations in the *inter partes* reexamination system have made the procedure of marginal value to the public. It simply is not an effective alternative to expensive, unpredictable and protracted litigation in the Federal courts.

Genentech thus encourages the Congress to pass legislation now to create a viable, cost-effective, and fairly balanced post-grant administrative patent review procedure. The approach set forth in section nine of the Committee is a good starting point, but several important variables need to be revised to make that system acceptable.

- *Threshold Showing to Initiate Procedure*—Genentech believes that an opposition system should require any party wishing to commence a proceeding to provide a cogent and well-supported showing that at least one claim in the patent is invalid, and require the PTO to make an independent determination that the showing meets a threshold level of question as to the validity of one or more claims in the patent. If the initial showing is not sufficient, the Office should not commence the proceeding. Genentech is flexible as to the specific standard employed to make this assessment. One possible standard is that the claim is "prima facie" invalid—meaning that, assuming the cited evidence is accepted as true, the claim would be invalid. Other standards could be employed as an alternative to the *prima facie* standard. The approach taken in the legislation, however, is not viable. It would permit an opposer to commence an opposition upon any showing. The burden would then fall to the patent owner to prove that the opposition proceeding is groundless. Genentech believes this "initial proof" requirement is an important part of any post-grant review procedure that could result in invalidation of one or more claims of a patent. Without this initial determination, patent owners could be subjected to groundless challenges to their patents.
- *Estoppel.* Participation in a post-grant review system must not create any barrier for the participants to litigate patent validity on issues that were not actually raised and addressed in the post-grant review proceeding before the PTO. While Genentech believes Congress should not include express estoppel provisions in the post-grant review legislation, if included, those provisions should not be comparable to the codified and uncodified estoppel provisions applicable to *inter partes* reexamination proceedings. Instead, they should apply only to those issues actually addressed in the opposition proceeding, and which were necessary to the final determination of the Office.
- *Time Limits to Initiate and Conclude Proceeding.* A third party should be allowed to initiate a post-grant review proceeding provided it has made an appropriate preliminary showing only within a fixed period following issuance of the patent. In our view, the optimal period is nine months. Genentech believes a limited authority to commence an opposition proceeding if the patent owner consents may also merit consideration, if sufficient safeguards against "coerced" consent can be devised. To be viable, the post-grant proceeding must be concluded within a reasonable period, namely, 12 to 18 months. The legislation should confirm that this deadline will be respected by the PTO.
- *Applicable to Any Patent that Can Be Enforced.* The system should permit review of any patent that is capable of being enforced, subject to the threshold showings and limitations noted above.
- *Limited Additional Evidentiary Procedures.* Genentech believes a viable post-grant review procedure should permit use of evidentiary procedures that will provide a more rigorous review of issues pertinent to the validity of a patent than are permitted under the current *inter partes* reexamination authority. At the same time, we recognize that if all the evidentiary procedures available in litigation before a Federal Court were allowed to be used in a post-grant review procedure, no benefits would be realized from using the PTO-based procedure. As a result, Genentech believes it would be appropriate to make available only certain limited additional procedures in a post-grant review procedure; namely, the right to cross-examine a witness who offers testimony in the proceeding, and, if the presiding authority finds it appropriate, limited requests for admissions and an opportunity for an oral hearing. Other measures, however, should be expressly prohibited in the law. In particular, parties to a post-grant proceeding should not be subject to document production, or forced to produce fact witnesses for depositions. Such restrictions are appropriate and will not undermine the effectiveness of the procedure. Proposed section 328 should thus be amended to foreclose discovery other than those types enumerated above.
- *Prohibit inequitable conduct challenges based on actions of parties during post-grant proceedings.* The inequitable conduct doctrine operates to ensure that patent applicants during *ex parte* examination of their applications are held to a higher standard of dealing with the PTO. A party that does not

meet his or her duty of disclosure to the Office can cause that party's patent to be held unenforceable. The reason for this enhanced duty of disclosure is that the *ex parte* examination procedure is closed and the public cannot participate. Unlike *ex parte* examination, however, post-grant review procedures being proposed in section 9 of the Committee Print would be public and would include the active participation of one or more parties opposed to the patent owner. These factors eliminate the need for any enhanced disclosure standards comparable those imposed during original examination. Moreover, there is no comparable sanction that can be imposed on third parties in such a proceeding (i.e., those parties will be free to litigate infringement, enforcement and invalidity in the future largely unfettered by their participation in the proceeding). In view of this, Genentech believes the legislation should impose identical obligations and responsibilities on parties to an opposition proceeding. This means, in part, that the legislation should include a provision which holds that a patent may not be held unenforceable due to those events that arise during the opposition proceeding. Such a provision should also confirm that if the PTO finds that one party has made a misrepresentation, it should have the authority to take actions to sanction that party appropriately. Where such misrepresentations are discovered after the patent emerges from the proceeding, courts may give due consideration to the actions of the party, but should not be allowed to hold the patent unenforceable.

Genentech stands ready to work with the Committee to improve section 9 of the Committee Print to create a well-structured and effective post-grant opposition procedure.

CONCLUSION

Genentech thanks the subcommittee for the opportunity to present its views on the topic of patent reform. As a significant user of the patent system, Genentech believes it is desirable to pursue legislative reform to improve this critically important system. We encourage Congress to work with all sectors of the patent community to ensure that the best package of reforms can be pursued and enacted into law.

Mr. SMITH. Thank you, Mr. Kushan.
Mr. LaFuze.

TESTIMONY OF WILLIAM L. LaFUZE, PARTNER, VINSON & ELKINS, LLP, AND CHAIR, SECTION OF INTELLECTUAL PROPERTY LAW, AMERICAN BAR ASSOCIATION, ON BEHALF OF THE AMERICAN BAR ASSOCIATION AND THE ABA SECTION OF INTELLECTUAL PROPERTY LAW

Mr. LAFUZE. Thank you, Chairman Smith and Members of the Subcommittee, and thank you for this opportunity to testify on behalf of the American Bar Association and that Association's Section of Intellectual Property Law.

I currently serve as the chair of the ABA Section of Intellectual Property Law. The views that I'm going to express here today on awarding a patent to the first inventor to file have been adopted as ABA policy, and, therefore, represent the views of the entire 400,000 member Association.

Views expressed on other issues have not been approved by the ABA and are, therefore, those of the Section of Intellectual Property standing alone.

At the outset, it's important that you note that our members represent a diverse cross section of interests. Our members are attorneys who represent universities, individual inventors, small businesses, and large businesses. Our members are hired to assert patents against infringers. Our members are hired to defend infringers against such claims.

Our members are typically on both sides of any patent license negotiation, patent dispute, or patent litigation. Given that our members represent virtually everyone impacted by the patent system, I offer my testimony today as representing really the best interests of the United States patent system, and given the importance to our Nation, the best interests of this country.

I would like to comment briefly on two distinct areas of particular importance to the continued success of the U.S. patent system.

One area relates to the capabilities of the United States Patent and Trademark Office; the second relates to substantive patent law.

As to the first topic, the U.S. PTO must have the financial and human resources needed for it to undertake its crucial role effectively and efficiently. The ABA IPL Section appears here today to endorse major reforms to the patent system. These reforms will impact the operation of the U.S. PTO. These reforms, if enacted, will require the U.S. PTO to perform expanded duties and responsibilities in a timely way. It will need to do so with a high level of accuracy. Unless its resources are sustained at adequate levels, many proposed reforms, even though well designed could be frustrated.

While the committee print does not address U.S. PTO capabilities, its proposed reforms will underscore the urgent need to address this topic.

Let me now turn to the second topic, substantive patent law.

In February of this year, the ABA took the position that the United States should now move from its current patent law, the first to invent system, which is based on proofs of dates of invention, to a first inventor to file principle.

The position of the ABA is two-pronged on the subject of first inventor to file reforms, with the first prong calling for adoption of the principles as domestic law and the second advocating its incorporation into international harmonization agreements. Let me briefly outline why the Association took this important step.

The existing patent law, which is best described as a proof of invention date system, is unacceptably expensive, complicated, and unpredictable. The U.S. patent law today requires that rival inventors fight for the right to patent an invention in a so-called patent interference. An interference fight proceeds at enormous expense with prolonged uncertainty and little predictability as to the outcome.

Recent commentators have confirmed the adverse impact of patent interferences.

Over the last 20 years, independent inventors have lost more of the interferences than they have won. As a group independent inventors, despite having invested multi millions of dollars in the patent interference system at a cost of about $300,000 per interference have fared worse than they would have achieved under a first inventor to file system.

We believe that moving U.S. patent law to a first inventor to file system should be the centerpiece of any patent reform effort. Indeed, as we outline in our statement, it will facilitate and make more effective other important reforms.

On issues other than first to file, the section offers the following proposals that appear in the committee print.

First, limit the enforceability defense based on inequitable conduct to a but for standard and do not allow this defense to affect otherwise valid patent claims. In this respect, we differ from the others on the panel.

Establish a more prompt and cost effective means for correcting defects and issued patents through a meaningful post-grant opposition proceeding that addresses most issues of patent validity implicated by such defects.

And third publish all applications at 18 months. The publication of all applications would enhance certainty for the inventors and the public as to the identity of prior art.

Four, limited allegations of willful infringement. Pleading willfulness in virtually patent litigation complicates discovery and raises issues of scope of waiver of attorney-client privilege that could be avoided if appropriate reforms are enacted.

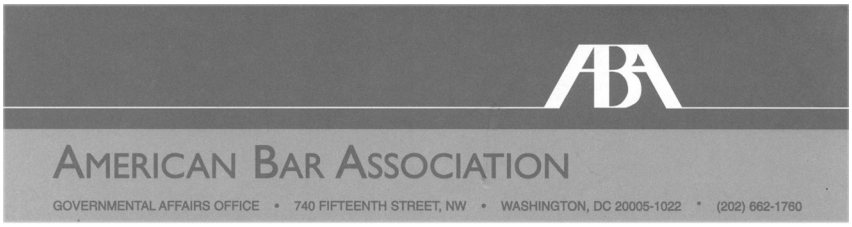
The section would like the opportunity to work with you to develop these reforms, and our specific proposal with regard to willful infringement is to try the willfulness and discover the willfulness separately from the trial on the liability otherwise.

Fifth, we think that the elimination of best mode is appropriate, particularly in an international context of patent harmonization. Our position is that elimination of best mode requirement represents a best practice in the patent harmonization context, a view that the section shares with virtually every major other NGO organization that has addressed the issue.

I'm again grateful for the opportunity to present the views of the ABA IPL Section on these important issues related to patent law reforms. We look forward to a constructive dialogue that will expand the areas on consensus for pursuing such reforms and we hope that our comments today will serve as a constructive part of the dialogue that an effort of this magnitude requires. Thank you.

[The prepared statement of Mr. LaFuze follows:]

PREPARED STATEMENT OF WILLIAM L. LAFUZE



Statement of

William L. LaFuze
Chair
Intellectual Property Law Section
of the
American Bar Association

Before the

Subcommittee on Courts, the Internet, and
Intellectual Property
of the
Judiciary Committee
United States House of Representatives

On

Committee Print Regarding Patent Quality
Improvement

April 20, 2005

Thank you for the opportunity to testify on behalf of the American Bar Association and the Association's Section of Intellectual Property Law. My name is William L. LaFuze. I am a partner and co-head of the Intellectual Property Section of the law firm of Vinson & Elkins, and I currently serve as Chair of the ABA Section of Intellectual Property Law. I will be commenting on a number of patent reform issues today. The views that I express on awarding a patent to the first inventor to file have been adopted as ABA policy by our House of Delegates, and therefore represent views of the Association. Views expressed on other issues have not been approved by the House of Delegates or Board of Governors of the Association, and are those of the Section of Intellectual Property Law ("the Section") alone.

Two Areas for Reform: USPTO Capabilities and Substantive Patent Law

I would like to divide my comments between two distinct areas of particular importance to the continued success of the U.S. patent system. One area relates to the capabilities of the United States Patent and Trademark Office. The Office must have the resources needed for it to undertake its crucial role effectively and efficiently. The second area relates to substantive patent law. With the ever-growing costs of obtaining and enforcing patents, its need for clear, simple, and objective principles for determining the scope of patent rights and for securing their enforceability in the courts has never been greater.

We are fortunate in the United States to have a patent system that functions well and has well served the public interest. Today it provides important incentives to invest in the discovery and commercialization of new technologies. Few countries in the world today have systems for protection of intellectual property rights – including the institutions for administering and enforcing those rights – that match those in the United States. We would urge, therefore, that the starting point for 21st century patent reform should be to build on the existing strengths of our patent system and seek changes to it only where a clear consensus has developed on needed improvements.

In this regard, the 109th Congress may represent a unique opportunity for patent law reforms to be enacted into law. On many important issues facing the U.S. patent system, we see not only a developing national consensus on the need for improvements, but also an emerging consensus on the content of the needed improvements. This suggests to us ripeness for patent law reform touching the most important features of the patent law. My testimony today will focus largely on topics on which the Section has worked with other organizations seeking to build the needed consensus and where we have seen those efforts at consensus-building bear fruit.

The First-Inventor-to-File Principle: The ABA Position

I would like to begin with a discussion of a very significant aspect of the patent law where fundamental change appears ready for congressional consideration: the issue

of adopting the first-inventor-to-file principle. For several decades this topic would not have been on anyone's consensus-driven agenda for patent law reform. Indeed, the ABA took a position in 1967 that the United States should not adopt a first-to-file system. However, like many other organizations, as times and circumstances have changed, the ABA has changed its view on the issue of adoption of a first-inventor-to-file rule in the United States.

In February of this year the American Bar Association took the position that the United States should now move from its current patent law based on proofs of dates of invention to a first-inventor-to-file principle. This issue has not only been added to our Section's list of important patent law reform issues, it has come to the top of that list for reasons that I will explain in detail.

The position of the ABA adopted this past February is two-pronged on the subject of first-inventor-to-file reforms, with one prong calling for adoption of the principle as domestic law, and the second advocating its incorporation in international harmonization agreements.[1]

The ABA continues to support efforts at greater international harmonization of the patent laws. Our Section has been a longstanding supporter of efforts to realize the many efficiencies that might come from even limited steps towards harmonization, such as establishing common standards for determining what is prior art to an invention claimed in an application for patent. Although efforts at this type of international agreement-driven harmonization have been ongoing for two decades, they have as yet achieved no discernable progress. The Section is one of many U.S.-based organizations that would like to see the fruits of greater harmonization achieved sooner rather than later. We support whatever efforts the Congress might undertake to encourage the Executive Branch to accelerate its efforts in this regard.

We believe, however, that there is one important step that the Congress could take now that would greatly advance the objective of greater international patent law harmonization. That step is the enactment of legislation that would institute a first-inventor-to-file rule. Indeed, we think that the negotiating position of the United States could be greatly enhanced if the United States were able to enter into international

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[1] The ABA position is set out in the following resolution:

RESOLVED, That the American Bar Association supports enactment of legislation providing that the right to a patent shall belong to the inventor who first files an application for patent containing an adequate disclosure under 35 U.S.C. §112 of the invention or, in the event of an assignment of rights, shall belong to the assignee thereof;

FURTHER RESOLVED, That the American Bar Association supports concomitant efforts to conclude international patent harmonization agreements that incorporate such principles.

discussions having enacted patent laws that we would encourage other countries to adopt as a harmonized standard.

The United States is disadvantaged in international negotiations today because it has effectively conceded that adoption of a first-inventor-to-file principle is the best practice for a future harmonized patent law, not its current system based upon assembling proofs of invention dates. We face 30 European countries—and a European Patent Office—that can make the powerful argument that they already have an efficiently functioning patent system, based upon a first-to-file principle, and that these countries have now harmonized their patent laws by adopting *in toto* the European Patent Convention.

So long as it continues under the present system, the United States will remain disadvantaged in these international negotiations because it is now apparent that adoption of a first-inventor-to-file principle represents a "best practice" for operating a harmonized patent law. In 2001, the United States Patent and Trademark Office heard from a host of U.S.-based NGOs that the United States should advocate a first-inventor-to-file rule, not our current system based upon assembling proofs of invention dates, as the "best practice" for a globalized patent law.

What this means is that our possible willingness to abandon our current system no longer serves as a potential negotiating chip in international patent harmonization discussions. To the contrary, with so many U.S.-based NGOs having concluded that adoption of a first-inventor-to-file system would serve our national self-interest, and then failing to act to adopt such a system, we cannot tender a willingness to act in our self-interest as a negotiating concession.

Now to the most important point: what the Europeans want as a harmonized patent law is not what the Section wants – or what a chorus of other U.S.-based NGOs want out of a patent system that is harmonized around the first-inventor-to-file principle. The Section, in fact, opposes greater harmonization of the world's patent laws by simply adopting the common European patent law principles.

Indeed, the Section has recently completed a careful study of the precise manner in which the United States ought to move forward with patent law changes in the context of an international patent harmonization agreement and concluded that the European patent laws contain many undesirable features. In many respects, our view on an international patent harmonization agreement is that it might well require far more changes, and more significant ones, to European patent laws than would be required to be made to U.S. patent law.

Allow me to address just a few key points. We afford inventors a one-year "grace period" during which an inventor can make a disclosure of an invention, but that disclosure cannot be used to deny the inventor a patent. The Europeans reach the opposite conclusion and bar the inventor's patent. We protect inventors against so-called "self-collision" where an inventor's earlier-filed application cannot be cited as a basis for denying the inventor a patent on a closely related invention filed in a later-filed

application. The Europeans reach the opposite conclusion and require that all such earlier-filed applications must be used as prior art against the inventor himself such that the novelty of a related invention can be defeated. We limit prior art arising from the work of persons other than the inventor to publicly accessible disclosures so that a disclosure that is not reasonably accessible to the public cannot be used to bar a patent to the inventor. The Europeans use a "divulgation" principle that states that even a single, oral, non-confidential disclosure made anywhere in the world – no matter how inaccessible it might be to persons skilled in the technology seeking that disclosure – counts as prior art and can block an inventor's patent for the invention.

Harmonization has long been important to the Section, and remains so. Our vision of a patent harmonization agreement is an agreement calling for first-inventor-to-file, coupled with a host of "best practices" that would include each of the principles outlined above.

The second prong of the ABA position on first-inventor-to-file reforms calls for incorporation of first-inventor-to-file principles in international harmonization of patent laws. By separate expressions of support for domestic implementation and for international harmonization, our policy serves two purposes. First, it makes clear that we support enactment of the first-inventor-to-file principle in U.S. patent law irrespective of whether international patent harmonization efforts are further pursued or ultimately successful. The record of the ABA's deliberations on the first-inventor-to-file policy contains a comprehensive analysis of why this reform is important – even urgent –with or without an international patent harmonization agreement. Second, it reflects our belief that adoption of first-inventor-to-file is not just a harmonization bargaining chip that the U.S. might give up in the end, but a core principle to take into and build upon in international harmonization efforts.

The Case for Awarding the Right to Patent to the First Inventor to File

At its core, the existing patent law, which is best described as a "proofs of invention date" system, is unacceptably expensive, complicated and unpredictable. The U.S. patent law today requires that rival inventors can be forced to fight for the right to patent an invention in a so-called "patent interference."[2] No one today can dispute the inefficiency of this system. An interference fight proceeds at enormous expense, with prolonged uncertainty and little predictability as to the outcome.[3]

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[2] Interference contests impact no more than one in 1,000 U.S. patents sought. A patent interference must be set up so that the needed proofs of respective invention dates as between the rival inventors can be established, *i.e.*, to determine which rival inventor qualifies as first in time. Then, the U.S. Patent and Trademark Office and/or the courts determine which inventor will retain the right to patent.

[3] Even when a patent interference is not needed (and the patent for an invention is simply issued to the first inventor to seek the patent), the validity of a U.S. patent is never free from substantial uncertainty because of the relevance of invention date proofs. They are

The "proofs of invention date" system can be complex and unforgiving. It may require proofs of day-by-day "diligence" in the making of the invention. Other aspects of the required proofs may include demonstration of a "complete conception" and/or actual "reduction to practice," including a demonstration that the invention was established and recognized as operable for its intended purpose. All these proofs need so-called "proofs of proofs," i.e., independent "corroboration" of the inventor's work.

This proofs-based system is significantly disadvantageous to the first to make the invention in these patent interference contests if the first to make the invention is not also the first inventor to file for a patent. The first to make the invention – indeed even the first inventor to file for a patent – can be barred from patenting the invention under the proofs-based system unless it can successfully assemble needed proofs. Moreover, the right to patent can be lost in a patent interference because an inventor has run afoul of one of many technicalities.

The crux of criticism that commentators have noted in the U.S. patent interference law lies in the realization that the enormous complexity provides so many ways for the first to make an invention and the first to seek a patent to nonetheless forfeit the right to patent the invention. The twice-first inventor (first to make and first to file) can still forfeit the right to patent if any one of the following defects applies once a patent interference is declared:

- The "conception" of the invention is deemed to be "incomplete" or otherwise inadequate,
- The required "independent corroboration" of the conception is found to be inadequate,
- The proffered proofs of diligence are rejected because the conception was incomplete, inadequate, or uncorroborated,
- Interruptions in the continuity of diligence in a "reduction to practice" cannot be explained or excused,
- The required records needed to establish the invention dates and diligence dates may be unavailable,
- The "reduction to practice" does not demonstrate the required operability for the intended purpose for the invention,
- The invention is deemed to have been "abandoned, suppressed or concealed,"

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relevant to determinations of whether or not an invention meets the requirements for novelty and non-obviousness in view of prior art. However, unlike in a first-inventor-to-file system, "secret prior art" is part and parcel of our current law. This "secret prior art" arises when an invention is made by another inventor who can prove an early invention date based upon entirely secret activity. Such prior art can belatedly emerge and destroy the validity of a seemingly valid U.S. patent, compounding the uncertainty and unpredictability of attempting to access whether an apparently valid patent will be sustained in a court challenge.

- Patent claims of the rival inventor are not timely "copied" in the manner required by law,
- Proper preliminary motions are not made to allow use of the inventor's "best proofs" of invention dates,
- An interference "estoppel" applies, or
- The inventor cannot sustain the delays, complexities or uncertainties of the patent interference contest and settles, quits or otherwise ends the contest before a favorable outcome can be achieved.

Finally, the right to patent can be lost solely because of an inability to afford the enormous financial burdens necessarily imposed by the U.S. proofs-based patent interference system. According to the 2003 Economic Survey of the American Intellectual Property Law Association, the median cost to an inventor in a simple two-party interference is $113,000 to complete the preliminary phase (discovery) and over $300,000 to the final resolution. For the "small entity" inventors (individual inventors, small businesses and universities), the risks of loss of the right to patent are significantly heightened because the resources and persistence needed to see the "proofs of invention date" system through to its completion are often severely limited.

In stark contrast, the fate of the "first and true inventor" is typically far better outside the United States. The first and true inventor – who by definition always has the ability to be first to file for a patent – can secure the award of the right to patent by the simple act of seeking the patent before any later, rival inventors make the same invention, much less are able to file for a patent on it. In short, in no other country of the world is the first inventor who is first to seek a patent put at this type of risk of loss of the right to patent.

The "Proofs Of Invention Date" System Particularly Disserves Independent Inventors.

Recent commentators have confirmed the "pain without gain" impact of patent interferences on the independent inventor community. Between 1983 and 2000, 98 independent inventors who were not the first inventor to file for a patent were able to use patent interferences to establish the right to patent, while 115 independent inventors that were the first to file for a patent had their rights to patent defeated in patent interferences. Thus, as a group, independent inventors – under the "proofs of invention date" system – invested multi-millions of dollars in the patent interference system only to incur a net loss of 17 patents compared to the outcome that they would have achieved under a "first-inventor-to-file" system. See Gerald J. Mossinghoff, The First-to-Invent System Has Provided No Advantage to Small Entities, 88 J. Pat & Trademark Off. Soc'y 425 (2002).

In May 1995, the Uruguay Round Agreements Act, Pub. L. 103-465, 108 Stat. 4809 (Dec. 8, 1994), became law. At that time, U.S.-based inventors lost the decisive advantage they had held since at least 1876 in interference contests. Foreign-based inventors, who had been barred from relying on home-country proofs of invention, were now placed on an equal footing in making "proofs of invention dates" as U.S.-based

inventors. With the impact of this change in the patent law lifting the ban on foreign invention date proofs, the net number of U.S.-based independent inventors that can be expected to lose patents because of patent interferences will only increase in the future.[4]

Another commentator has expanded the Mossinghoff analysis and reached an even more ominous conclusion concerning the impact on independent inventors:

> [I]nterference proceedings are more often used by large entities to challenge the priority of small entities, not the reverse. This evidence further supports Mossinghoff's conclusion that the first to invent system is not working to the benefit of small entities. If anything, small entities are getting bogged down in interference proceedings initiated by larger companies. This makes some intuitive sense. Large, sophisticated entities are more likely to understand the patent system, including the rather arcane interference process, and use it to their advantage.

Mark A. Lemley and Colleen V. Chien, Are U.S. Patent Priority Rules Really Necessary?, 54 Hastings Law Journal 1299, 1323 (July 2003).

Finally, even patent lawyers recognized as the leading experts in the area of patent interferences (Charles L. Gholz) lament the complexity, difficulty, and societal costs of these proceedings:

> A couple of years ago I was handling a big ticket interference in which my side's inventors were named the Inventors of the Year by the Intellectual Property Owners Association. At about the same time, my client assigned the lead inventor to us full time. That is, it told him that it was more important for him to work with us to win the interference than it was for him to work at his laboratory bench making more inventions!
>
> My client's decision was good for us, but it was grotesquely bad for the nation. While the inventor spent his time racking his brain trying to remember what he had done and when he had done it years before (and more importantly, trying to find documents to substantiate his

[4] The Mossinghoff statistics have been recently updated through 2004 and appear to confirm that the loss of patents by independent inventors has accelerated. During the past four years, the number of patents lost by independent inventors has increased by nearly two-thirds, to 28. See Mossinghoff, "Small Entities and the 'First-to-Invent' System: An Empirical Analysis," Washington Legal Foundation Working Paper (April 15, 2005).

> hazy memory), he could have been back at his bench making more important inventions.
>
> As things stand, important people (i.e., inventors—not patent attorneys!) spend enormous amounts of time on historical matters which, at least in most cases, are of absolutely no use to anyone apart from the interference and of no interest to anyone at all for any reason.

Charles L. Gholz, 82 J. Pat. & Tm.Off. Soc. 894 (2000).

The central complaint concerning the existing "proofs of invention date" system lies in its unavoidable cost and complexity, coupled with its inherent delays and uncertainties. Together, these features are inimical to the best interests of all inventors, but most particularly to the interests of the community of independent inventors.

With the last potential argument that a "proofs of invention dates" principle might benefit any class or category of U.S.-based inventors having been erased by Congress in 1994, the case for awarding the right to patent to the first inventor to file for a patent who provides an adequate disclosure of the invention has become compelling.

The "Duty of Candor" – Reforming the "Inequitable Conduct" Defense

A second area of needed patent law reform on which the Section but not the ABA has taken a position relates to the so-called "subjective elements" in patent litigation. These are allegations made in patent infringement cases – either by the patent owner or by the accused infringer – that make patent litigation among the most expensive lawsuits that the courts hear today. Among the most frequently cited of these "subjective elements" are the "best mode" defense, willful infringement allegations, and the "inequitable conduct" unenforceability defense.

Each of these three elements has a common characteristic: the merits of the allegation generally cannot be assessed from a study of public patent prosecution records. In each case, significant discovery is normally required to prove or disprove the allegation. In each case, the required discovery focuses on the state of mind of one or more individuals.

My testimony today will focus in detail on only one of these "subjective elements," the "inequitable conduct" defense to the enforceability of a patent. This defense arises from the "duty of candor and good faith" that both the United States Patent and Trademark Office and the courts have long held requires those preparing, filing, or prosecuting patent applications to observe. That duty bars omitting material information or making a material misrepresentation to a patent examiner.

Let me start by observing that the Section is in no way criticizing – much less proposing any dilution of – the "duty of candor and good faith." Indeed, given the *ex*

parte nature of the patenting process, important policy considerations have long supported imposing such a duty on the inventor and anyone involved in assisting the inventor in the preparation, filing or examination of a patent application. The problem facing the patent system today lies not in the existence of the duty, but in the consequences that flow from the role of the courts in imposing sanctions for adjudicated violations of the duty.

Under current law a violation of the duty of candor and good faith with an intent to deceive or mislead the United States Patent and Trademark Office is all that is needed to make out a defense of "inequitable conduct." When the defense has been made out, a court is required to hold that the entire patent is permanently unenforceable. It is an appealing defense for an accused infringer – some might argue irresistible. Any accused infringer that succeeds in proving a single act of intentional misconduct wins the entire lawsuit. For an infringer facing a patent with one or more completely valid claims, this defense can turn a losing case into a winning case for the infringer.

Because of the complexity of patent procurement, in almost every case there will be some information that the inventor knew that was not communicated to the patent examiner. Almost any defect in the prosecution record can be turned into an allegation of intentional concealment of material information or its misrepresentation and place the patent at risk of being held unenforceable.

Equally importantly, the discovery burden on the patent owner when inequitable conduct is alleged can be significant and the costs of a defense can be substantial. The inventor's ability to enforce a completely valid patent can be greatly compromised.

The conduct that can give rise to a holding of the permanent unenforceability of a patent can be relatively trivial and inconsequential. In one case, the Federal Circuit affirmed a trial court decision that a patent attorney – making a statement that he had done a search as part of a petition to accelerate the examination of a patent application – committed a fraud on the patent office because the search he testified that he had conducted had been through consultations with experts working in the field, not a search of the official patent office records. *General Electro Music Corp. v. Samick Music Corp.*, 19 F3d 1405 (Fed. Cir. 1994).

The many ways in which statements made during the examination of a patent application can be used as a basis for allegations of inequitable conduct have led to two undesirable consequences. Some attorneys fear withholding *any* information from a patent examiner and disclose massive quantities of information – even if it appears to be of little or no relevance to what a patent examiner needs to know to examine the patent. Other patent attorneys resist making any disclosure of any substance concerning the prior art out of fear that the disclosure will be the basis for an allegation of misrepresentation. Indeed, the patent bar has in general – and with justification – sought to block the United States Patent and Trademark Office from requiring more meaningful disclosures concerning prior art because of the unfairness to inventors of creating more fodder for "inequitable conduct" allegations.

The "inequitable conduct" defense, as it currently operates, has highly perverse and unintended consequences. Because it is pled in almost every major patent litigation, it might be said that the ubiquitous appearance of the defense suggests it cannot be serving as an effective deterrent to misconduct. Had it so operated, one would expect the defense to arise in those rare cases when the deterrent was inadequate.

Second, the "inequitable conduct" defense does little to assure accurate and complete work by the patent examiner. Compared to information that the patent examiner could best use to make the best examination decision, the "inequitable conduct" defense motivates patent attorneys to disclose too much (marginally relevant information to avoid any allegation of possible concealment) or too little (withholding any comments on possible relevance or significance of any prior art information provided).

We believe that substantial reform to the defense is in order. As reformed, the defense should operate to affirmatively encourage more meaningful and valuable disclosures of information to patent examiners. To this end, the Section has taken the position that the "inequitable conduct" defense should not arise in any patent litigation in which all the claims of the patent are confirmed as valid. In other words, there should be no defense of "fraud on the patent office" where there has been no fraud and the inventor has secured a completely valid patent. This affords the inventor an overarching incentive for the patent examiner to have important information needed and considered in order to get the examination right – thereby insulating the patent from the unenforceability defense.

Second, the Section's position is that even if one or more patent claims are found to be invalid, the "inequitable conduct" defense should only succeed where the alleged misconduct was causally related to the decision of the patent examiner to allow at least one invalidated patent claim to have been issued, *i.e.*, a so-called "but for" standard. In short, before a patent owner should forfeit the entire patent based upon bad conduct, it should have been conduct that had some bad consequence, *i.e.*, caused an invalid patent claim to issue.

Post-Grant Opposition – Coordinating With First-Inventor-to-File and "Inequitable Conduct" Reform

The last major topic on which the Section but the ABA has taken a position that I would like to address in detail today is post-grant opposition. On this topic I would like to describe the major components of the Section's position, but not dwell on the specific details. I take this approach because a number of proposals for instituting a post-grant opposition system have emerged recently. Most differ only in detail, not overall content. The broad support that these proposals represent suggests that post grant opposition merits serious consideration by the Congress.

Done right, a post-grant opposition system could improve the operation of the U.S. patent system. The Section, however, would urge Congress to move forward with

both caution and by developing a broad consensus on this topic. Done wrong, post-grant oppositions can produce unacceptable delays and uncertainties for an inventor. As we see opposition systems operating outside the United States, many have problematic features that we should seek to avoid. Among the most important is the lack of a timely conclusion to the opposition, producing an extended and unacceptable period of uncertainty for patent owners and the public.

As threshold matters, the Section would urge that Congress address first-inventor-to-file reforms as a predicate to adoption of a post-grant opposition system. Unless Congress does so, the post-grant opposition system will need to consider proofs of the inventor's dates of inventor in various circumstances. Also, adoption of the first-inventor-to-file principle creates an opportunity for a post-grant opposition to address all issues of patent validity. This would greatly increase its value as a means for correcting mistakes made in issuing patents.

Reforms to the "inequitable conduct" defense are equally desirable predicates to creation of a post-grant opposition system. Without inequitable conduct reforms, patent owners will face greatly increased exposure to allegations of inequitable conduct in attempting to defend patent rights during an opposition.

The post-grant opposition system that the Section supports would include the following features:

[1] permit the filing of an opposition by any person, upon a suitable threshold showing, within a limited period of time not greater than 1 year after the date of the patent grant;
[2] permit as grounds for opposition a broader scope of invalidity issues under 35 U.S.C. §§ 102 (except 102(c), (f) and (g)), 103 and 112 (except for the best mode requirement), than is available in reexamination proceedings;
[3] permit a limited opportunity for amendment of the patent claims during the opposition;
[4] provide completely inter partes proceedings, including the right of any party thereto to appeal an adverse decision to the Court of Appeals for the Federal Circuit;
[5] provide that all evidence other than patents and printed publications be presented through affidavit or declaration, and that affiants and declarants be subject to cross-examination;
[6] limit discovery to cross-examination of affiants, unless otherwise required in the interest of justice;
[7] provide authority to the Board of Patent Appeals and Interferences to hear and decide all such post-grant review proceedings;
[8] put the burden of proof on the Opposer to show invalidity by a preponderance of the evidence; and
[9] require that the proceeding be completed within a specified period of time.

Other Needed Reforms to the U.S. Patent System

The Section has devoted considerable efforts over the past year to studying the work of others on the issue of 21st century patent law reforms. We have done so in the context of reviewing and commenting on two recent reports on the U.S. patent system, one by the Federal Trade Commission ("To Promote Innovation: The Proper Balance Between Competition and Patent Law and Policy," October 2003, "the FTC report") and the other by the National Research Council of the National Academies ("A 21st Century Patent System," The National Academies Press, 2004 "the NRC report").

The Section has prepared a response to each of these reports and appends to this statement a report of the Section's response to the NRC report. As noted in our report, we support many of the NRC proposals for reforms to the patent system and recommend congressional consideration of their merits.

Congress Should Move Forward With a Comprehensive Reform Agenda

So where does this lead us in the road to developing the needed consensus on patent law reform? We believe Congress should start with selected recommendations from the two major studies of the patent system – both proposing fundamental changes to the patent law. These studies led the Section and other interested parties to develop legislative reform agendas. In particular, several organizations have focused on the NRC report as the basis for developing a potential consensus on the content of patent reform efforts. We are one such organization.

To summarize where we stand on various NRC issues and the manner in which they might be prioritized and coordinated for a 21st century patent system, let me offer the following synopsis of my testimony today, detailing how the Section views the NRC report recommendations:

1. Adopt first-inventor-to-file rule as the centerpiece of reform efforts. This matter has taken on increased importance with the TRIPs-mandated changes to U.S. patent law and the need to enhance the leverage of the United States in international patent harmonization discussions and the credibility of many U.S. patent law principles as the starting point for efforts at greater harmonization of patent laws.
2. End the "plague" of inequitable conduct allegations in patent litigation by reining in the unenforceability defense based upon inequitable conduct. While the Section would hope that the duty of candor and good faith could be strengthened and made more meaningful by the United States Patent and Trademark Office, the current adjudication of misconduct allegations in the courts actually undermines rather than advances the policy objectives that underlie the doctrine.
3. If a first-inventor-to-file rule is adopted and strict limits on the unenforceability defense due to inequitable conduct are instituted, establish a more prompt and facile means for correcting mistakes made by the United States Patent and Trademark Office. A fair and balanced system of post-grant opposition should be created. Depending upon the content of accompanying reforms, it is possible that

the Section could support a system that addresses all issues of patent validity and could potentially correct all mistakes in issuing a U.S. patent.

4. Publish all patent applications at 18 months. Adoption of the first-inventor-to-file would remove many of the concerns expressed by small-entity inventors or potential loss of patent rights arising from publication. Unlike current law, the publication of an inventor's application for patent now places a "safe harbor" around a published application disclosure that categorically precludes others from attempting to patent the same invention or anything merely obvious from the published application. The opposite can happen under our current patent law because publication can attract others to seek to patent subject matter around or even into what is disclosed in the published patent application.
5. Limit allegations of willful infringement. The pleading of willfulness of the infringement in virtually every patent litigation today complicates discovery and raises issues of scope of waiver of attorney-client privilege that could be avoided if appropriate reforms are enacted. The Section would like the opportunity to work with the Congress to define the most appropriate way forward to undertaking such reforms.
6. Eliminate the "best mode" requirement. The Section currently favors elimination of the "best mode" requirement in the context of an international patent harmonization agreement, but has no position on this issue otherwise. Our position is that elimination of the "best mode" requirement represents a "best practice" in the patent harmonization context, a view the Section shares with virtually every other major U.S.-based NGO that has addressed the issue. Again, consistent with the Section's conditional position favoring elimination of this requirement, we would appreciate working with the Congress on when and how the Section's position might be best advanced into legislation.

Conclusion

I am again grateful for the opportunity to present the views of the ABA and its Intellectual Property Law Section on the important issues related to 21st century patent law reforms. We look forward to a constructive dialogue that will expand the areas on consensus for pursuing such reforms. We hope that our comments today will serve as a constructive part of the dialogue that an effort of this magnitude requires.

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Attachment: IPL Section NRC Response

ATTACHMENT

RESPONSE TO THE RECOMMENDATIONS OF THE NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES ON "A 21ST CENTURY PATENT SYSTEM"

THE VIEWS EXPRESSED HEREIN ARE ON BEHALF OF THE AMERICAN BAR ASSOCIATION SECTION OF INTELLECTUAL PROPERTY. THEY HAVE NOT BEEN APPROVED BY THE HOUSE OF DELEGATES OR THE BOARD OF GOVERNORS OF THE AMERICAN BAR ASSOCIATION AND SHOULD NOT BE CONSTRUED AS REPRESENTING THE POLICY OF THE AMERICAN BAR ASSOCIATION.

OVERVIEW AND CALL TO ACTION

Three Recommendations of Overarching Importance to Improving the Patent Law

In its 2004 report on the U.S. patent system ("A Patent System for the 21st Century"), the National Research Council of the National Academies made seven principal recommendations. Since the publication of its report, NRC Recommendations 3, 6, and 7 have garnered particular attention. These recommendations respectively call for enhancing the post-grant review of patents, limiting subjective elements in patent litigation and making harmonizing changes to the patent laws, including the adoption of the first-inventor-to-file principle.

IPL Section Supports Taking Action Now on Three NRC Proposals:

1. Adopt "first-inventor-to-file" system, including a one-year "grace period," and protections against "self-collision."
2. Eliminate or limit the "subjective elements" in patent litigation ("best mode," "inequitable conduct," and "willful infringement.")
3. Create a window after a patent issues for an opposition procedure that would permit the correction of any mistake made in granting the patent.

With respect to each of these three topics, the Section finds itself in substantial agreement with the recommendations made by the NRC. Of equal significance, the Section finds itself in substantial agreement with a number of other groups that have now taken public positions on these three NRC recommendations.

If a consensus were to develop on the merits of these recommendations, they could take on an overarching importance. Together they could define a path forward to the enactment into law of a set fundamental improvements to the U.S. patent system.

The Section's response to the NRC recommendations will begin, therefore, with a discussion of these three recommendations and their collective significance.

First-Inventor-to-File: A Fairer and Simpler Patent System

A singularly important recommendation of the NRC is to seek greater harmonization between U.S. patent laws and those of countries outside the United States. An important thrust of this recommendation is that efforts be made to change and improve the operation of foreign patent systems. The Section supports harmonization efforts aimed at changing foreign patent laws so that they operate with greater effectiveness and fairness – and do so by incorporating existing features found in U.S. patent laws.

The NRC recommends one fundamental change to U.S. patent law as part of overall efforts at greater harmonization. NRC recommends that the United States change its patent law to guarantee the right to patent to the first inventor to file for a patent. Its report contains a cogent rationale for doing so. The American Bar Association supports making this change to the U.S. patent law. Both the NRC and the ABA see changing to a first-inventor-to-file principle as

the heart of creating a fairer and simpler patent system. The ABA has been joined by other leading U.S.-based non-governmental organizations that have reached the same conclusion. The time has come, therefore, for serious efforts to move forward with domestic legislation that would implement the NRC recommendation.

In the context of an international patent harmonization agreement, the Section has given detailed consideration to how such a fundamental change should be introduced into U.S. patent law. In this regard, the Section has identified a series of "best practices" – principles that should be followed in implementing the NRC first-inventor-to-file recommendation. Importantly, the Section's support for a first-inventor-to-file rule is conditioned on retaining a one-year "grace period" in which pre-filing disclosures made directly or indirectly by the inventor cannot bar the inventor from obtaining a valid patent. The Section, moreover, opposes introduction of features of European patent law, such as "absolute novelty" (*i.e.*, any oral, non-confidential divulgation of an invention qualifies as prior art sufficient to bar its later patenting) and "self-collision" (*i.e.*, an inventor's own prior-filed, copending patent applications can be cited as prior art against the inventor).

Instead the Section supports first-inventor-to-file legislation that would retain the existing features of U.S. law that provide fairness and balance. Importantly, the Section has endorsed retaining in the U.S. patent laws the requirements that disclosures must be publicly accessible (*i.e.*, reasonably and effectively accessible to persons of ordinary skill in the art) in order to qualify as prior art, protect patent owners against "self-collision," and recognize the one-year "grace period" with respect to both direct and indirect disclosures by inventors.

Moreover, the Section has identified other important reforms to the U.S. patent laws that would further simplify the law, make patent validity assessments more certain, and eliminate subjective factors in determining patentability that currently complicate the patent laws. In this regard the Section has supported elimination of certain miscellaneous tests for patent validity that are unnecessary once a first-inventor-to-file rule is put into effect. Thus, the so-called "loss of right to patent" and related provisions (*i.e.*, abandonment of the invention, premature foreign patenting, use of the inventor's personal and non-public knowledge gleaned from others as prior art, and forfeiture of the patent right based upon secret uses and/or secret placement of the invention "on sale") should be eliminated from U.S. patent law. The use of so-called "secret prior art" (*i.e.*, prior inventions of others, not abandoned, suppressed or concealed) should likewise be eliminated. Finally, the "best mode" requirement should be repealed.

In brief, in carrying forth the NRC recommendations on the introduction of harmonizing changes into U.S. patent law, the Section has identified "best practices" that would allow a complete and accurate assessment of all issues of patent validity to be conducted in most situations solely by referencing publicly accessible information. Thus, the call for harmonizing changes to the U.S. patent law may represent the NRC recommendation of greatest potential benefit for inventors, patent owners, the United States Patent and Trademark Office and members of the public. Introducing a first-inventor-to-file system, done in accordance with the "best practices" supported by the Section in the context of an international patent harmonization agreement, would mean patent validity could be assessed more rapidly, less expensively, with

greater completely, with enhanced certainty, and at much reduced cost compared to the current U.S. patent law.

Limiting "Subjective Elements" In Patent Litigation

A second recommendation of the NRC with profound implications for the patent system is its proposal to eliminate – or at least limit – the so-called "subjective elements" often raised in patent litigation. The NRC report identifies three such elements that it recommends be eliminated and/or limited: the "best mode" requirement, the "inequitable conduct" defense, and the "willful infringement" allegations. The Section supports in principle the NRC recommendation as to each of these three elements

First, as described above, the Section favors outright elimination of the "best mode" requirement in the context of an international patent harmonization agreement. Without interrogating the inventor to learn what he or she contemplated as of the time the patent was sought, it cannot be known if the inventor's "best mode" was disclosed and a patent is valid. Other major patent systems do not have this requirement. U.S. patent law introduced this requirement only in 1952. The remaining requirements for disclosing a patented invention assure that a complete description of a patented invention must be provided together with sufficient details to assure that the invention can be carried out, in order for a patent to be valid. Thus, on balance, the "best practice" for a patent system is to eliminate this requirement altogether, as the NRC recommends.

Second, the Section favors limitations on the "inequitable conduct" defense. Limiting this defense is in no way inconsistent with maintaining a comprehensive "duty of candor and good faith," including a vigorous enforcement of the duty by the United States Patent and Trademark Office where a patent applicant is found to have violated the duty. Indeed, while the Section endorses limiting the unenforceability defense, it favors retaining the mechanisms already in the law that can deter and impose sanctions for misconduct, *e.g.*, criminal sanctions for making willful false statements and the like to the Office (18 U.S.C. §1001), disbarment of registered attorneys and/or agents based on intentional violations of professional conduct rules, and malpractice remedies against attorneys and agents engaged in unprofessional conduct before the Office. However, like the NRC, the Section believes that holding a patent unenforceable based upon alleged misconduct should be available as a sanction only if the decision to issue the patent was impacted in fact by the misconduct, *i.e.*, the patent issued with one or more invalid claims and, but for intentional misconduct, the patent not have issued with an invalid claim or claims.

Third, the Section favors limitations on allegations of "willful infringement" in patent litigation. The practical need to waive the attorney client privilege and rely upon an opinion of counsel to defend against an allegation of willful infringement has seriously eroded the important public purpose of that privilege, *i.e.*, "to encourage full and frank communications between attorneys and their clients." *See Upjohn Co. v. United States*, 449 U.S. 383, 389 (1981). The Court of Appeals for the Federal Circuit recently has somewhat reduced the need to rely upon an opinion of counsel, but has not gone far enough. *See Knorr-Bremse Systeme v. Dana Corp.*, 383

F.3d 1337 (Fed. Cir. 2004). The Section proposes further limits on both the timing and the scope of waiver when an opinion of counsel is relied upon.

Post-Grant Opposition

The NRC made a third recommendation that also is of great importance, especially if it can be linked together with the harmonizing changes and the elimination and/or limitation on "subjective elements" in the patent law. This third recommendation of the NRC calls for an "open review" procedure that would permit the United States Patent and Trademark Office to promptly correct any mistakes made in the issuance of a patent. The Section supports such an "open review" procedure, *i.e.*, the introduction of a post-grant opposition system.

If a post-grant opposition system were to be coordinated with the harmonizing changes to the U.S. patent law described above, the Section would support making the post-grant opposition co-extensive with all issues relating to the validity of a patent. This would mean that any entity that is potentially adverse to a patent would have a very strong incentive to oppose the patent, in preference to holding back and waiting to mount a defense once sued. Under an appropriately structured opposition proceeding, the opposer could raise any issue it might later be able to raise in court, could do so without exposing itself to the patent owner's choice of timing and forum, would not be subject to the patent owner's demand for a jury trial, and could be assured that the proceeding would be promptly concluded. Thus, opening a limited window after the issuance of a patent for such an opposition to be requested holds the potential to correct errors in issuing a patent fairly, promptly, and comprehensively.

The Potential Synergy from Coupling Together These Three Recommendations

The potentially synergistic significance of these three recommendations of the NRC cannot, in the view of the Section, be overstated. Enacted together into law, they would mean that the work of the United States Patent and Trademark Office could be conducted with greater accuracy and completeness. Any mistakes made by the Office could be corrected promptly and comprehensively. A patent once issued – and especially a patent once vetted through an opposition procedure – would be more reliably enforceable. Patent litigation that today requires extensive discovery on issues of patent validity and enforceability would depend to a very large extent on publicly accessible information and upon wholly objective determinations.

The fundamental importance of these three NRC recommendations suggests that both the United States Patent and Trademark Office and the U.S. Congress should take a careful look at the steps needed to put these changes into the patent law. For the Office, it requires a careful look at the incremental resources and new areas of expertise needed to conduct post-grant oppositions. While some significant level of resource savings may result from the simplification of the patent law and practice resulting from the implementation of the first-inventor-to-file principle, these may likely not be sufficient to properly conduct substantial numbers of post-grant opposition proceedings.

The United States Patent and Trademark Office should also continue its laudable efforts to move forward with international patent harmonization agreements. This is especially important in order to assure that the identified "best practices" envisioned for the U.S. patent system are incorporated outside the United States. The Section is aligned with many other U.S.-based organizations that have substantively identical views on the content of "best practices." A domestic consensus among non-governmental organizations ought to strengthen substantially the leverage of the United States in international negotiations.

Finally, the Section believes that the time is ripe for active Congressional involvement in these recommendations. Again, the Section does not find itself alone in advocating that the United States move forward to adopt a first-inventor-to-file system as a means for making the U.S. patent operate with greater fairness, efficiency and effectiveness. A wide swath of the U.S-based non-governmental organization community is seeking adoption of the Section-endorsed changes to U.S. patent law outlined above. Given the growing importance of the patent system, the many criticisms of the current operation of the system, and the apparent consensus within large parts of the user community that some corrective actions are essential, the Section supports taking these three NRC recommendations forward as the core of any effort at near-term reforms to the patent laws.

Improvements in the Operation of the United States Patent and Trademark Office: Planning, Oversight, Accountability, and Financing

The NRC has recommended that the capabilities of the United States Patent and Trademark Office be strengthened. It has particularly noted that the post-grant opposition system, particularly once fully phased into operation, may demand significant new resources and capabilities within the Office. The Section has been a strong and steady supporter of the NRC recommendations as they relate to adequate funding for the Office and the need to sustain that funding.

The Section would strongly urge that any effort to address the issue of resources and capabilities for the Office be undertaken in a holistic fashion. To simply provide the Office with a higher level of funding is not a guarantee that the underlying concerns expressed in the NRC report and elsewhere will be addressed. For the Section, implementing a holistic view requires undertaking a four-component effort. That effort must address planning, oversight, accountability, and – ultimately – financing.

Planning

Any effort at a more effective and efficient United States Patent and Trademark Office requires that the Office engage in comprehensive planning processes. These planning processes must be strategic, operational, and financial in character. They should operate over a five-year planning horizon. They should take account of all the constituencies in the patent system.

A successful strategic plan should address the needs of inventors for prompt, accurate and complete determinations of patentability. They should address then needs of those who may wish

to challenge a patent with a prompt, efficient and complete mechanism by which errors in granting patents can be corrected. They should address the needs of technologists for rapid and complete access to the technical information contained in patents. They should address the needs of Congress to exercise its responsibilities for oversight of the operations of the Office and its fidelity to its constitutionally driven mandate to promote progress in the useful arts.

The Section would support, therefore, as part of the efforts to reinvigorate the capabilities of the Office a statutory mandate that the Office undertake five-year strategic, operational, and financing plans for the Office, that these plans be developed in consultation with all the Office's relevant constituencies, and the plans serve thereafter as a framework for the oversight and accountability of the Office.

Oversight

Given the critical role of the United States Patent and Trademark Office today – and the recommendation that the Office's role be significantly expanded by hearing post-grant oppositions to the grant of patents – the existing oversight of the functioning of the Office should be reassessed. First and foremost, the work of the Judiciary and Appropriations Committees should remain as principal sources of oversight of the effectiveness of the Office. As the authorizers and appropriators of the Office, their oversight function has been critical to assuring accountability of the Office.

This Congressional oversight function could be strengthened, however, if the Patent Public Advisory Committee's role was enhanced to require the Office to consult with the PPAC in formulating its five-year plans and to require the PPAC to review and comment upon such plans before they are finalized by the Office. The Section recommends that Congress consider an enhanced role for the PPAC.

Accountability

Another facet of improving the functioning of the United States Patent and Trademark Office is keeping score – establishing numeric targets or metrics by which to assess whether the Office is meeting commitments in its five-year plans and improving is operational efficiency and effectiveness. Metrics should exist that reflect the accuracy, promptness, and efficiency by which the Office discharges its responsibilities.

The Section would support, therefore, a dialogue with the Judicial and Appropriations Committees and the user constituencies that would determine how best to establish meaningful and appropriate metrics. As with the issues of oversight, it may be that the PPAC should play an ongoing role in developing and evaluating the appropriateness suitable metrics.

Financing

The last leg of the four-legged foundation for a more effective and efficient United States Patent and Trademark Office is financing. The Section supports adequate financing of the Office – and appropriations mechanisms that create and can sustain adequate financing of the Office. However, for the Congress and for the user constituencies to be able to determine the appropriate level of funding and the effectiveness of the Office in using its resources, there must be contemporaneously put into place the improvements in planning, accountability, and oversight set out above.

If the Office is to take on the sobering responsibility of correcting its own mistakes in issuing patents through a post-grant opposition procedure that would encompass all patent validity issues, adequate and sustained financing will be crucial to building the capabilities necessary to effectively discharge this sobering responsibility.

IPL Section Supports the Call for a More Efficient and Effective United States Patent and Trademark Office:

1. Mandate the Office undertake a set of five-year strategic, operational, and financing plans.
2. Strengthen the existing Congressional oversight of the Office by mandating a new role for the Patent Public Advisory Committee in the five-year planning processes.
3. Establish new accountability measures through new metrics targeted to accuracy, promptness, and efficiency of the Office.
4. Address adequate and sustained financing for the Office in the context of the new planning, oversight and accountability mechanisms.

The Section Supports the Principle of a Unitary Patent System – Open to New Technologies and Underpinned by Legal Doctrines Flexible Enough to Apply Across the Useful Arts

The recommendation that appears first in the NRC report sets forth the basic principle of "one patent system" that applies across the useful arts, *i.e.*, the full sweep of subject matter that is eligible for patenting. At the level of this basic principle, the NRC and the Section are in substantial agreement.

The patent laws contain an existing collection of requirements that, if rigorously applied to any application for patent, should filter out of the patent system anything that, as a policy matter, should not be accorded patent-like exclusivity. With a set of stringent requirements for obtaining a valid patent – patent-eligible subject matter, practical and substantial utility in presently available form, novelty, non-obviousness, reasonable definiteness, complete written description and full enabling disclosure – the patent system should be open to all new technologies in all fields of endeavor. Moreover, across the useful arts, inventions should be capable of a thorough examination without engrafting new, technology-specific requirements for obtaining a patent.

In this respect, the Section was disappointed in one aspect of a further NRC recommendation relating specifically to the application of the non-obviousness requirement. The NRC specifically recommends that the courts look again at the application of the non-obviousness standard to gene patents. However, what the NRC proposes in this very specific recommendation

for this very specific area of technology appears to the Section to be less than fully consistent with the principle of a unitary patent system. Others have come to a similar conclusion in assessing this recommendation.

The Section's view and the NRC position may not reflect any practical differences. The fundamental principle of a unitary patent system is commonly shared. The need for vigorous applications of all tests for patentability appears to be a common objective. The absence of any perceived need for a change to the patent statute – including the statutory test for non-obviousness itself – is a view commonly held. Thus, both NRC and the Section appear to agree on the most fundamental point: the courts must apply a unitary law on non-obviousness, as reflected in the existing statute, to all fields of technology in a wholly non-discriminatory manner.

The "Experimental Use" Recommendation of the NRC Merits Serious Consideration

A final NRC recommendation calls for some clarification of the possible patent infringement issues that arise when an invention is used for research, scientific, or experimental purposes. Of concern to the NRC – and others – are the apparent differences expressed in opinions authored by judges of the Court of Appeals for the Federal Circuit.

One Federal Circuit judge has contended that no such common law exemption may exist, *i.e.*, "[I]n my judgment, the Patent Act leaves no room for any *de minimis* or experimental use excuses for infringement." *Embrex Inc. v. Service Engineering Corp.*, 216 F3d 1343 (Fed. Cir. 2000). Another judge has taken the view that a limited exemption has historically existed in the common law, *i.e.* "The subject matter of patents may be studied in order to understand it, or to improve upon it, or to find a new use for it, or to modify or 'design around' it. Were such research subject to prohibition by the patentee the advancement of technology would stop, for the first patentee in the field could bar not only patent-protected competition, but all research that might lead to such competition, as well as barring improvement or challenge or avoidance of patented technology." *Merck v. Integra*, 331 F.3d 860 (Fed. Cir. 2003).

The Supreme Court has granted certiorari in the *Merck* case and it is possible that it may address the "experimental use" issue presented in the NRC recommendation. The Section does support clarification of the common law principle and looks forward to the development of a consensus on the best way forward to end the apparent uncertainty as reflected in judicial opinions over the past several years.

DETAILED DISCUSSION – SECTION RESOLUTIONS

RECOMMENDATION 1:

"Preserve an open-ended, unitary, flexible patent system."

"The system should remain open to new technologies with features that allow flexibility in protecting new technologies."

Section Response:

The Section agrees that the patent system should remain open to new technologies, giving full effect to Congress's intent that anything under the sun that is made by man is patentable.

Discussion:

In *Diamond v. Chakrabarty*, 447 U.S. 303 (1980) the Supreme Court held that the Constitution's grant to Congress was very broad and that Congress intended that the patent laws be interpreted very broadly. Irrespective of this broad statutory mandate, various courts over the years narrowed the scope of the statutory subject matter to exclude such things as "phenomena of nature, abstract intellectual concepts, mental steps, mathematical algorithms with no substantial practical application, printed matter, and, for many years, business methods." Many of these judicially-imposed restrictions now have been overturned. The courts have correctly determined that the judicially imposed limits on patentability were contrary to the law and to Congress's clear intent. *See, e.g. State Street Bank and Trust Co. v. Signature Financial Group, Inc.,* 149 F.3d 1368 (Fed. Cir. 1998). The Section considers that to be appropriate.

As the Supreme Court has recognized on numerous occasions, the language of the patent laws already embodies policy determinations regarding the economic impact of patent scope. Congress has already spoken, and it has determined that the incentives of patent law work best when the scope of patentable subject matter is broad. Congress chose not to distinguish between specific categories of inventions beyond machines, manufactured articles, processes, and compositions of matter.

The Section suggests that the Patent and Trademark Office and courts vigorously pursue enforcement of the existing statutory criteria of patentability in order to effect the full scope of Congress's policy decision that patent protection extends to "anything under the sun made by man." *Chakrabarty*, 447 U.S. at 309.

"Among the features that should be exploited is the United States Patent and Trademark Office's (USPTO) development of examination guidelines for new or newly patented technologies."

Section Response:

The Section agrees that the use of examination guidelines by the USPTO should be continued and expanded, including guidelines for areas of new technology. Such guidelines, however, should continue to follow existing law for patentability and should not condone discriminatory treatment of patent applications based on the field of invention.

Discussion:

Guidelines are useful tools for teaching patent examiners how to consistently apply the patent law to new or newly patented technologies. New or newly patented technologies do not have the benefit of interpretation of the patent laws as applied to those technologies by either the Board or the Federal Circuit. Absent a set directive by the Patent and Trademark Office, inconsistent positions will likely be taken by the Examining corps regarding how the law should be applied to such technologies.

Guidelines were previously issued, for example, in the biotechnology area regarding written description and enablement under 35 U.S.C. §112, first paragraph. Prior to the guidelines, the scope of claims deemed allowable could vary greatly depending upon the Examiner assigned to the application. The Guidelines have a large number of examples that accurately set forth common claims in this technology. The Guidelines have a detailed explanation of how the patent law should be applied to the particular claims and what the short comings of the claims are. They also offer suggestions regarding what scope of claims could be found allowable and possible amendments. These Guidelines provided a much more consistent approach to patent prosecution in this area and continue to be used today even as the field has become more developed.

Thus, the Section agrees that examination guidelines are useful in new technologies as well as in more advanced technologies where inconsistent positions are common within the Examining corps.

"The Court of Appeals for the Federal Circuit ("Federal Circuit") also should ensure its exposure to a variety of expert opinions by encouraging submission of amicus briefs and by exchanges with other courts. In addition to qualified intellectual property professionals, appointments to the Federal Circuit should include people familiar with innovation from a variety of perspectives—management, finance, and economics, as well as nonpatent areas of law affecting innovation."

Section Response:

The Section agrees that the Federal Circuit should encourage submission of amicus briefs and encourage exchanges with other courts. The Section also agrees that the backgrounds and experience of men and women appointed to the court should reflect the diverse subject matter of the court, but the Section believes that court should include three or four active judges with patent law background and should include active judges with jury trial experience.

Discussion:

The Section agrees that the establishment of the Court of Appeals for the Federal Circuit in 1982 has resulted in a vast improvement over adjudication in the regional circuit courts of appeals and has achieved many of the goals set for the court, including but not restricted to greater consistency in the interpretation and application of the patent law. The Section also agrees that – consistent with the assignment to the Federal Circuit of jurisdiction over a wide variety of subject matters to avoid insularity and other perceived disadvantages of specialized courts – the court should be exposed to insights from a wide spectrum of thought and experience.

Toward this end, the Federal Circuit should continue its practice of seeking amicus input into its more important cases. To the extent appropriate to the particular case, this amicus input should draw upon insights from other judicial decisions, independent scholarly analysis, and available and relevant empirical evidence. It is the Section's view, however, that the court's current amicus brief practice satisfies these goals, and should be continued. The Section sees no need to urge the court to expand its amicus practice to encourage "economic analysis in areas of innovation-related law."

The Section agrees with the NRC Report that (1) judicial appointments to the Federal Circuit should be made with particular care (as should the appointment of all judges to all courts), (2) Federal Circuit judicial appointments should not be confined to intellectual property practitioners and academics, (3) Federal Circuit judicial appointments should include men and women with diverse experience and backgrounds appropriate to the court's diverse subject matter jurisdiction, and (4) in particular, some appointments to the court ought to be from the ranks of Federal district court judges with extensive jury trial experience, including patent jury trial experience. It is also important, however, that – given the importance and scope of the court's patent jurisdiction – the Federal Circuit's complement of active judges always include three to

four judges with extensive pre-court patent experience. Notwithstanding the foregoing, however, the Section sees no need to appoint judges to the Federal Circuit "with backgrounds in antitrust or finance law or in economics or economic history." On the contrary, given the tension that has often existed between the antitrust and patent laws, the Section feels that a focus on antitrust or economics would tend to undermine the twin goals of uniformity and predictability in the judicial application of the patent laws.

Finally, the Section agrees that encouraging Federal Circuit judges (as some now do) to sit by designation on other courts and vice-versa would be beneficial, at the very least because it will give the judges a better sense of how patent law fits in with other laws influencing innovation. Particular benefit would be achieved, however, if Federal Circuit judges received greater exposure to patent jury trials, either through designation to serve on district courts or through the designation of district court judges to serve on the Federal Circuit.

RECOMMENDATION 2:

"Reinvigorate the non-obviousness standard."

> *"The requirement that to qualify for a patent an invention cannot be obvious to a person of ordinary skill in the art should be assiduously observed. In an area such as business methods, where the common general knowledge is not fully described in published literature that is likely to be consulted by patent examiners, another method of determining the state of general knowledge needs to be employed. Given that patent applications are examined ex parte between the applicant and the examiner it would be difficult to bring in other expert opinions at that stage. Nevertheless, the Open Review procedure described next provides a means of obtaining expert participation after a patent issues."*

Section Response:

The Section agrees with the NRC that the obviousness standard should be assiduously observed and that an Open Review procedure would assist the USPTO by making available relevant prior art not presently available to the USPTO. This is discussed further in the response to Recommendation 3 below.

> *"With respect to gene-sequence-related inventions, a low standard of non-obviousness results from Federal Circuit decisions making it difficult to make a case of obviousness against a genetic invention (for example, gene sequences). In this context the court should return to a stricter standard, which would also be more consistent with other countries' practices in biotechnology patenting . . . . The committee therefore recommends that the USPTO and the Federal Circuit abandon the per se rule announced in Bell and Deuel"*

Section Response:

The Section agrees that the obviousness standard should apply equally to all technologies, but disagrees with the suggestion by the NRC that the standard of non-obviousness is low with respect to gene-sequence-related inventions, or that the Federal Circuit in *Bell* and *Deuel* established a different obviousness standard for gene-sequence inventions.

Discussion:

The Section disagrees with the assertion in the NRC report that a change must be made based upon the Federal Circuit precedent of *Bell* and *Deuel*. The NRC report suggests eliminating the alleged "*per se* rule" relating to the non-obviousness of the sequence. First, the NRC report does not suggest making any statutory changes to § 102 and/or § 103. The IP Section would be adverse to any changes specific to biotechnology inventions since the laws should apply equally to all technologies and should not be more stringent for any particular technology. It is believed that the current legal precedent applies § 102 and § 103 in the genetic sequence area just as it does in the chemical area as well as the electrical and mechanical arts.

Secondly, the application of *Bell* and *Deuel* is consistent with the application of § 112 in *Regents of the University of California v. Eli Lilly & Co.* While the NRC report mentions the *Lilly* decision, it states that the fact that *Lilly* results in "narrowing the scope of some gene patents to the actual sequence disclosed" and may "inherently prevent patents on some technologically obvious genes for which *Bell* would otherwise permit a patent ... is not an adequate solution." The legal precedent in these cases does go hand-in-hand. Changing the standard for obviousness would require a change in what is described to a person skilled in the art. The end result, however, may be the same. While a broader claim may be held "described" by the specification, the broader claim may be "obvious" under a more stringent standard relating to genetic sequences.

Generally, in light of the written description requirement, genetic sequence claims are limited to a particular sequence or closely related sequences thereof. Under Federal Circuit precedent, the sequence as a whole should be evaluated. Would one skilled in the art have reasonably expected the particularly claimed sequence based upon the available prior art? This is the test suggested by the NRC report at pages 77-78. That is the correct test and is what is currently being used. If one skilled in the art would not have expected the particularly claimed sequence, then that sequence should not be found obvious based upon the prior art. No changes are needed to the law in this regard.

What is needed is more consistent application of the law. It is possible that some of the concerns reflected in the NRC report could be remedied if he turnover in the examining corps in Technology Center 1600 were reduced and more effective training and supervision were able to produce greater consistency. Further, other quality measures could further the goal of a consistent application of the existing standard for non-obviousness.

Moreover, some patent application claiming gene sequences are very large and especially complicated to examine. Patent examiners reviewing these applications might achieve greater consistency if given more time and more credit commensurate with the greater complexity of that work.

RECOMMENDATION 3:

"Institute an Open Review procedure."

"Congress should seriously consider legislation creating a procedure for third parties to challenge patents for a limited period after their issuance in an administrative proceeding before administrative patent judges of the USPTO. The speed, cost, and design details of this proceeding should make it an attractive alternative to litigation to determine patent validity and be fair to all parties."

Section Response:

The Section agrees, in principle, with the recommendation of the NRC for creation of a new administrative procedure to allow post-grant review of patents.

Discussion:

There are several mechanisms by which the Patent and Trademark Office can review issued patents:

- When an applicant files an application to reissue a patent and requests correction of at least one error in the patent,
- When an interference is declared between the patent and a pending application,
- When a patent owner or third-party requests reexamination of the patent, and
- When the Director initiates reexamination of a patent on his own initiative.

However, most of these procedures have significant substantive limitations. For example, most are limited to grounds based on prior art patents or printed publications and, outside of interference proceedings, the decision is not made by administrative patent judges. There is a general recognition that some type of more meaningful, cost effective, post-grant review process is important to sustaining the viability of the U.S. patent system.

The Section favors the NRC's recommendation of an administrative post-grant review and opposition procedure that would provide a more balanced proceeding than the present Patent and Trademark Office review procedures. The Section agrees that a properly implemented post-grant review process would provide significant opportunities for enhancing patent quality, thereby increasing business certainty, promoting competition, and fostering continued innovation. Therefore, the Section supports the creation of a new administrative review procedure that includes the provisions to:

[1] permit the filing of an opposition by any person, upon a suitable threshold showing, within a limited period of time not greater than 1 year after the date of the patent grant;

[2] permit as grounds for opposition a broader scope of invalidity issues under 35 U.S.C. §§ 102 (except 102(c), (f) and (g)), 103 and 112 (except for the best mode requirement), than is available in reexamination proceedings;

[3] permit a limited opportunity for amendment of the patent claims during the opposition;

[4] provide completely *inter partes* proceedings, including the right of any party thereto to appeal an adverse decision to the Court of Appeals for the Federal Circuit;

[5] provide that all evidence other than patents and printed publications be presented through affidavit or declaration, and that affiants and declarants be subject to cross-examination;

[6] limit discovery to cross-examination of affiants, unless otherwise required in the interest of justice;

[7] provide authority to the Board of Patent Appeals and Interferences to hear and decide all such post-grant review proceedings;

[8] put the burden of proof on the Opposer to show invalidity by a preponderance of the evidence; and

[9] require that the proceeding be completed within a specified period of time.

In order to be effective, such a post-grant review proceeding must be truly *inter partes*. Moreover, the opposition should be heard and decided by a panel of administrative patent judges ("APJ's"), such as the Board of Patent Appeals and Interferences. Such APJ's have training and experience in contested proceedings, whereas the Examiners currently handling re-examinations do not.

The proceeding should permit assertion of a broader scope of invalidity grounds than prior art patents and printed publications as currently available in reexamination proceedings. If the institution of the post-grant opposition system is coordinated with the so-called "harmonizing" reforms that the Section supports, then the scope of the post-grant opposition could be made co-extensive will all the issues of validity that an challenger might later raise in court as a defense to infringement.

The Section proposes that all prior art available under 35 U.S.C. §§ 102 and 103 be eligible for assertion in an opposition, but, absent enactment of the "harmonizing" changes, would oppose an opposition proceeding that would deal with issues of § 102(c) (abandonment), § 102(f) (derivation), and § 102(g) (first to invent). Those excepted grounds likely would require more discovery and more difficult determinations of what was in the mind of the inventor, thereby unduly increasing cost and delay. Thus, if the opportunity for post-grant opposition is to be optimized – both in providing a challenger a full opportunity to correct error made in granting the patent and to provide the patent owner assurance that a patent surviving an opposition is highly likely to be validly enforceable – the Section urges Congress to link post-grant oppositions to the first-inventor-to-file changes to the patent law.

The Section also proposes that indefiniteness of the claims, and lack of a written description of the invention or an enabling disclosure under § 112 be permitted as grounds which can be asserted. However, the failure to disclose the best mode of practicing the invention known to the inventor should not be available as a ground of opposition because of the difficult fact and

discovery issues raised by inquiry into the state of mind of the inventor. This issue, however, would be eliminated as a basis for invalidating a patent if the "harmonizing" changes are adopted.

To avoid harassment and unreasonable burden on the patentee, the opposer should be required to make a threshold showing of invalidity before the proceeding is instituted.

Discovery must be stringently limited so as to avoid the time delay and huge costs often associated with patent infringement litigation in the courts. Such costs would create an unreasonable burden for a patent owner who may not have even asserted that the opposer has infringed. Accordingly, the Section proposes that all evidence other than patents and printed publications be presented through affidavit or declaration, and that discovery be limited to cross-examination of affiants, unless otherwise required in the interest of justice.

The Section proposes that all oppositions be filed within a limited period, not greater than one year, after the patent issues. Further, the Section proposes that the entire proceeding be completed within a specified period of time, e.g., one year after it is instituted unless extended for an additional six months in unusual circumstances. Such time limitations will provide competitors and the public with an early opportunity to correct improperly granted patents, while providing the patentee with greater certainty within a reasonable time after the patent issues.

The Section believes that such a post-grant review proceeding would provide a prompt and cost-effective procedure for determining the patentability of the issued claims without creating an undue burden on patentees to defend their patents against frivolous assertions, repeated challenges and harassment. However, such a post-grant review proceeding will require additional funding for the PTO, and the Section's proposal is conditioned upon a commitment for adequate funding.

RECOMMENDATION 4:

"Strengthen USPTO capabilities."

"To improve its performance the USPTO needs additional resources."

Section Response:

The Section agrees that the Patent and Trademark Office needs additional resources and should be adequately funded.

Discussion:

The Section agrees that the USPTO capabilities should be strengthened, and has consistently supported adequate funding for the Patent and Trademark Office. Most importantly, the ABA and the Section have urged that some financing means be found that will assure the Office receiving sufficient, predictable funding for it to carry out urgently needed improvements in the efficiency and effectiveness of its operations.

There is a growing public perception that there are an increasing number of lower quality patents issued. Many of the reasons that underlying that perception are outlined in the Patent and Trademark Office's 21st Century Strategic Plan. One major reason is the increase in number of patent filings. From 1997 to 2001 the number of filings increased from 237,045 to 344,717. There has also been an increase in the number of patents issued. From 1997 to 2001 the number of patents issued increased from 122,977 to 187,822. This problem is amplified in art areas where references other than printed publications constitute the bulk of the relevant art, *e.g.*, business method patents. Despite these major problems and the need for greater funding, user fees continue to be diverted and funding shortfalls have persisted.

The Section supports providing predictable and sustained funding at adequate levels for the Patent and Trademark Office to be able to carry out strategic and operational plans to enhance the quality of patent examination and to adequately perform the tasks assigned to it – and to have the mechanisms for oversight and accountability to assure that it does so efficiently.

"These funds should enable . . . . implementing a robust electronic processing capability."

Section Response:

The Section agrees that the USPTO should enhance its electronic processing capability.

Discussion:

The Section reaffirms its longstanding support for use of electronic tools to assist in the patent examination process. The exponential decay in the cost of computing and the exponential rise in the depth and breadth of electronically searchable prior art information affords a continuing set of opportunities for more effective and pervasive use of electronic tools in the patent procurement process.

The NRC its report that the USPTO pre-search the subject matter of a patent application using a sophisticated, automatic text-search program that searches the prior art. The Section supports this recommendation. It appears to represent a cost-effective technology given that the USPTO already uses optical character recognition in order to process patent applications within the Application Branch, maintains a number of text-search prior art databases, and should be able to rely on a number of highly sophisticated technologies that currently exist for text-searching large databases.

While not all patents in all areas of technology may be equally amenable to this type of electronic searching, the USPTO should be able to continually assess the effectiveness of this type of searching to determine where it provides incremental improvement in the efficiency and effectiveness of patent examination. Given that the full-text for all U.S. patent applications exists shortly after filing and that text-searchable databases similarly exist, the incremental costs for devising search algorithms and delivering search results to patent examiners should be modest, justifying at least an early pilot program.

"These funds should enable . . . . creating a strong multidisciplinary analytical capability to assess management practices and proposed changes."

Section Response:

The Section agrees that funds should be used to assess management practices and proposed changes.

Discussion:

The Section agrees that the Patent and Trademark Office funds should be used to create a strong multidisciplinary analytical capability to assess management practices and proposed changes. The specific needs of the Patent and Trademark Office fluctuate with the economy and with the development of new technologies. The Patent and Trademark Office should use its resources to analyze statistics and thus the needs of the Office. Being able to analyze and respond to trends quickly allows the Office to promote the progress of Science and the useful Arts, as dictated by the Constitution.

A review of pendency statistics of the Office illustrates the need for such analytical capabilities. The areas of growth in the economy are usually the areas of the longest pendency, e.g., Art Unit 1600 (biotechnology and organic chemistry) in the 1990s and Art Units 2100 (Computer Architecture Software and Information Security) and 2600 (Communications) in 2005. Not only does this shorten the life of the patent in these areas, but it also affects business and development in these areas of growth. For example, it delays the issuance of the patents at times where many companies are developing and thus looking for patents to use for generating the interest of investors. Further, as competitors develop their business, a delay in issuance of patents provides uncertainty regarding what they are excluded from pursuing. Without knowledge of what patent claims will ultimately issue, competitors cannot attempt to design around the future claims. The Office should have the capabilities to evaluate trends and compensate accordingly so that public interest is best served.

"These funds should be used to . . . . conduct reliable, consistent, reputable quality reviews that address office-wide as well as subunit and examiner performance."

Section Response:

The Section supports expanding the current USPTO quality review program.

Discussion:

The USPTO currently randomly evaluates 2–4% of all allowed patent applications to determine the quality of the examination. In their evaluation, the USPTO's Office of Quality Review considers such quality indicia as whether relevant art was applied, whether the search that was conducted was sufficient, and whether additional rejections should have been made. The USPTO maintains Office-wide statistics such as the number of allowed patent applications that were allowed with one or more claims a court would likely hold invalid. However, it seems that the USPTO does not maintain records of quality indicia on an art-unit or tech-center-by-tech-center basis.

The National Research Council of the National Academies recommends in their report, *A Patent System for the 21st Century*, to strengthen the capabilities of the U.S. Patent and Trademark Office by developing a reliable, consistent, reputable quality assurance process. Such process would include determining a sampling rate for reviewing allowed patent applications and using that process to inform decisions about hiring, training, reassigning supervisors and examiners.

The Section of Intellectual Property Law agrees with the National Academies that the USPTO can use the Office of Quality Review more effectively to optimize training and hiring. By using data from the quality review process, the USPTO can improve quality by locating specific areas needing improvement and without wasteful duplication of effort. Also, by collecting data more specifically and using the data to influence hiring and training, the USPTO can improve quality without substantially increasing its costs.

Several years ago, the USPTO instituted a program of "second pair of eyes review" of patent applications largely in the business methods patents art area. That was done at a time when the PTO was receiving considerable criticism for issuing certain patents that were considered by many to be highly questionable. The program was considered to be successful generally in reducing the number of such questionable patents thereafter, though not eliminating them. However, the improvement in quality was not without cost in terms of utilization of PTO resources and in terms of pendency of all applications in that art area. At the time that the program was installed there was a perception that the business methods patents area was new and that training of examiners in that area was difficult under all of the circumstances.

Rather than adopt an expansion of the program on such infirm ground, it is desirable that the program be expanded only as needed to address circumstances akin to those extant in the business methods patents at the inception of the program. In view of the existing efforts to raise quality in the PTO and to reduce pendency, the overall principle of "do it right the first time" should be kept in mind. The PTO should not design its programs to utilize extra resources to achieve the levels of patent examination quality that could and should otherwise be achieved more efficiently by proper training and examination process control.

Accordingly, while the Section has long supported various ideas and programs to improve quality in the USPTO, the resolution supports the expansion of the program of second examiner review only in those art areas and for such time as necessary to bring examination processes and training into compliance in those art areas.

"[O]ne of the common occurrences in patent prosecution that should be much better documented is in-person or telephone negotiations between examiners and applicants' representatives."

Section Response:

The Section supports complete documentation of interviews, but believes that the present USPTO requirements for documentation are sufficient if consistently followed.

Discussion:

The Section believes that further requirements for documentation of in-person or telephone negotiations between examiners and applicants' representatives are not required. If the current dictates of the Patent Office are followed, sufficient documentation of the substance of examiner interviews will be provided in the prosecution file history.

Under MPEP § 713.04, a "complete written statement as to the substance of any ... interview" must be made of record in the prosecution file history of a patent application. If an applicant requests an interview, the "Applicant Initiated Interview Request Form" must be submitted to make of record what will be discussed. According to the MPEP, a written record should be made of any interview and should provide a "complete and proper recordation of the substance of any interview." The written record should include a description of any exhibits, identification of claims and prior art discussed and identification of "the principal proposed amendments of a substantive nature discussed." In addition, the "general thrust of the principal arguments of the applicant and the examiner should also be identified." Further, a general indication of other matters, the general results or outcome of the interview, and, if it is an "interview" by email, a copy of the email should be made of record.

If these dictates are consistently followed by the Patent Office, a sufficient documentation of in-person and telephone negotiations between examiners and applicants' representatives will be provided in each prosecution file history where an interview has occurred.

RECOMMENDATION 5:

"Shield some research uses of patented inventions from liability for infringement."

"In light of the Federal Circuit's 2002 ruling that even noncommercial scientific research enjoys no protection from patent infringement liability, and in view of the academic research community's belief in the existence of such an exemption, and behavior accordingly, there should be some level of protection for noncommercial uses of patented inventions. Congress should consider appropriately narrow legislation, but if progress is slow or delayed the Office of Management and Budget and the federal government agencies sponsoring research should consider extending "authorization and consent" to grantees as well as contractors, provided that such rights are strictly limited to research and do not extend to any resulting commercial products or services. Either legislation or administrative action could help ensure preservation of the "commons" required for scientific and technological progress."

Section Response:

The Section agrees with the NRC recommendation that some research uses of patented inventions should be shielded from liability for infringement.

Discussion:

Some exemption for experimentation on patented inventions must be part and parcel of an effectively functioning patent system. Although no explicit statutory exemption from infringement is found in the patent statute itself, some commentators have found logical support in the statute for the proposition that not all activities or "uses" connected with a patented invention should be found infringing:

> If the public had absolutely no right to make, use, or sell the patented invention until the *end* of the patent term, it would be somewhat puzzling to require that the patentee give the public an enabling disclosure of the invention at the *beginning* of the patent term. The requirement of early disclosure suggests that certain uses of patented inventions during the patent term do not constitute patent infringement.

Rebecca S. Eisenberg, *Proprietary Rights and the Norms of Science in Biotechnology*, 97 Yale L.J. 177, 218 (1987).

The exemption is inherent to a properly functioning patent system at least where experimentation is required to understand what is patented, whether the patent is valid, and what basic properties or characteristics the thing patented might have. In brief, a patent system should operate in an appropriate and balanced fashion by protecting the ability of the patent owner to prevent unauthorized commercial uses of the patented invention while protecting the ability of the public to evaluate, study and improve upon the patented invention. The Section believes that the ability of a patent owner to effectively commercialize its patented invention would not be compromised by a statutory exemption from infringement that is carefully and narrowly crafted to enable third parties to conduct research on the patented invention.

The Section believes, however, that certain premises in the NRC recommendation should not be relied upon in designing such an exemption. For example, the NRC makes a distinction between research performed by "non-commercial" entities, such as universities, and research performed by "commercial" entities. In practice, the experience of members of the Section is that such a distinction is nearly impossible to draw in practice, and should be immaterial to the question of whether the research activities are shielded from infringement or not. The Section observes that the motivation of an entity performing bona fide research on a patented invention – i.e., research to ascertain how the invention works, to design around the patent claims, or to evaluate and study the teachings of the patent – should not subject the party performing those acts to potential infringement liability.

The NRC report also cites the recent Federal Circuit decisions in *Duke v. Madey* and *Integra v. Merck Kgaa for* the proposition that there is greater uncertainty in the public regarding research uses of patented technology. Another such decision is *Embrex, Inc. v. Service Engineering Corp*, 55 USPQ2d 1161, 216 F.3d 1343 (Fed. Cir. 2000). In that appeal, Judge Radar in a concurring opinion stated that he wished the majority would have held that "the Patent Act leaves no room for any *de minimis* or experimental use exemption from infringement." Such an extreme interpretation would preclude any activity with patented subject matter qualifying as exempt from infringement and permit the activities to be enjoined. The concurring decision does, however, underscore the possible need for a Congressional response to what are apparently varying views at the Federal Circuit of what the controlling common law principles are or should be.

The NRC suggests that these decisions have created an undesirable degree of uncertainty over where the line should be drawn as between the inventor's exclusivity in commercialization and the public's right to engage in legitimate experimentation.

While the Section does not necessarily agree that there is a substantially increased degree of uncertainty, or that universities are only now attuned to possible risks of infringement from the actions of university researchers, legitimate concerns do exist over what are acknowledged to be *de minimis* uses of the patented invention. The fact that the costs of obtaining a patent license for such *de minimis* uses to authorize any necessary experimentation are generally available for nominal sums does not mitigate these legitimate concerns. Indeed, the evidence suggests the contrary may be the case. In any event, threatened patent litigation, complicated licensing negotiations, efforts to secure compensation based upon the fruits of any experimentation, and

delays in starting experiments until patent issues can be resolved are all potential adverse consequences of not having a definitive provision in the patent law exempting bona fide experimentation activities.

Accordingly, the Section supports the general proposition that Congress act to create an exemption in the patent law for certain acts of research or experimentation that are done on subject matter protected by a patent from liability for patent infringement. The Section supports the general assessment of the NRC that such an exemption from liability is entirely in line with the goals of the patent system. As the Constitution specifies, the Congress is given the authority to provide a patent system that will "promote the progress of the useful arts." Such progress means that the patent system, made to function properly, will advance social welfare through both innovation and dissemination of knowledge. Fostering both more innovation and greater dissemination of technical knowledge have paramount roles in the policy choices that are made in crafting patent laws.

The Section recognizes that the task of legislatively defining an exemption from infringement for *bona fide* research will be extremely difficult. For example, the exemption, if it is to operate as intended, must be drawn in precise and clear terms that enable a third party to appreciate without substantial effort whether the acts it intends to perform will give rise to potential liability. A standard that requires extensive litigation to ascertain whether actions undertaken by a third party will or will not give rise to liability would frustrate the purpose of the legislation.

The proposed exemption is consistent with legislation in other countries. Most other industrialized countries have provisions permitting research and experimentation uses of a patented invention. See, e.g., Article 69(1) of the Japanese Patent Act ("[t]he effects of the patent shall not extend to the working of the patent right for the purposes of experiment or research."). Provisions modeled generally on Article 27(b) of the Community Patent Convention ("acts done for experimental purposes relating to the subject-matter of the patented invention" are exempted) also can be found in most European nations. In addition, the WTO Agreement on Trade Related Aspects of Intellectual Property (TRIPS) provides expressly provides for the possibility of a research exemption through Article 30 of the Agreement ("Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.").

The continued absence of a statutory research exemption from U.S. patent law could have the unintended effect of making it more expedient to conduct certain types of experimental work in foreign countries where the threat of patent infringement litigation would not exist. Promoting the progress of the useful arts *outside the United States* should not be advantaged simply because of the lack of a comparable provision in U.S. patent law.

Finally, the codification of an experimental use doctrine is especially important today given the reach of the patent law to permit the patenting of "anything under the sun made by man."

Because of the patent eligibility of all man-made products and process, an exemption would ensure that products discovered in nature and patented as man-made compositions, *e.g.*, genetic material, hormonal substances, and organisms, can nonetheless be fully studied and examined.

RECOMMENDATION 6:

"Modify or remove the subjective elements of litigation."

> *"Three provisions of patent law that are frequently raised by plaintiffs or defendants (rarely by the courts) in infringement litigation depend on determining a party's state of mind, and therefore generate high discovery costs. These provisions are (1) "willful infringement," which if proven, exposes an infringer to possible triple damages; (2) the doctrine of "best mode," which addresses whether an inventor disclosed in an application what the inventor considered to be the best implementation of the invention; and (3) the doctrine of "inadequate conduct," concerning whether the applicant's attorney intentionally misled the USPTO in prosecuting the original patent. To reduce the cost and increase the predictability of patent infringement litigation outcomes, and to avoid other unintended consequences, these provisions should be modified or removed."*

Section Response:

While the NRC recommendation at first blush may seem radical to some steeped in the intricacies of the patent law, the points made in the NRC report bear serious consideration. The statistics in the NRC report reflect accelerating, out-of-control costs for patent litigation. Much of the costs are tied to enormous amounts of information that must be produced during discovery because it is of potential relevance to the contemporaneous state of mind of the inventor and/or others at the time the invention was made, the patent was sought, and/or the patent was being examined.

The experience outside the United States validates the possibility of running a patent system in which the issues in litigation are fundamentally objective determinations based principally on publicly accessible information. Under such a system, only limited discovery is needed in litigation and greater prospective certainty about the enforceability of the patent can be had absent *any* discovery.

Thus, the Section supports in principle moving ahead with the NRC recommendation and to identify the extent to which these issues can be limited in most patent litigation.

Allegations of Willful Infringement

"Lacking evidence of its beneficial deterrent effect but with evidence of its perverse antidisclosure consequences, the committee recommends elimination of the provision for enhanced damages based on a subjective finding of willful infringement ... A modest step is to abolish the effective requirement that accused infringers obtain and then disclose a written opinion of counsel. Another possibility is to limit inquiry into willful infringement to cases in which the defendant's infringement has already been established. A third alternative that preserves a viable willfulness doctrine but curbs its adverse effects is to require either actual, written notice of infringement from the patentee or deliberate copying of the patentee's invention, knowing it to be patented, as a predicate for willful infringement."

Section Response:

The Section favors substantial changes to the law of willful infringement. The Section proposes reforms to the scope and timing of the waiver of privilege when an attorney opinion is relied upon in defense of willfulness allegations. The Section is considering additional proposals that have emerged form the Business Software Alliance, the AIPLA and a Section Task Force.

Discussion:

On September 13, 2004, the Court of Appeals for the Federal Circuit, *en banc*, held that the trier of fact cannot draw an adverse inference with respect to willful infringement when the attorney-client privilege and/or work product privilege is invoked by a defendant in an infringement suit. *See Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337 (Fed. Cir. 2004). The Federal Circuit further held that the trier of fact cannot draw an adverse inference with respect to willful infringement when the defendant has not obtained legal advice. Finally, the Federal Circuit held that the existence of a substantial defense to infringement is not sufficient alone to defeat liability for willful infringement even if no legal advice has been secured.

The Section has long favored elimination of the adverse inference, and urged that position in an amicus brief in *Knorr-Bremse*. However, *Knorr-Bremse* treated only some of the problems existing in the law of willful infringement. The Section proposes legislation to further alter the law regarding the waiver of privilege.

The Federal Circuit in *Knorr-Bremse* recognized the importance of the attorney-client privilege, stating:

> The Supreme Court describes the attorney-client privilege as "the oldest of the privileges for confidential communications known to common law," and has stressed the public purpose to encourage full and frank communication between attorneys and their clients and thereby promote broader public interests in the observance of law and administration of justice. The privilege recognizes that sound legal advice or advocacy serves public ends and that such advice or advocacy depends upon the lawyer's being fully informed by the client.
>
> *Upjohn Co. v. United States*, 449 U.S. 383, 389, 101 S.Ct. 677, 66 L.Ed.2d 584 (1981). Professor Wigmore has elaborated:
>
> > The lawyer must have the whole of his client's case, or he cannot pretend to give any useful advice . . . . That the whole will not be told to counsel unless the privilege is confidential, is perfectly clear. A man who seeks advice, seeks it because he believes that he may do so safely; he will rarely make disclosure which may be used against him; rather than create an adverse witness in his lawyer, he will refuse all private arbitration, and take the chance of a trial.
>
> 8 J. Wigmore, *Evidence in Trials at Common Law* § 2291 at 548 (McNaughton rev. 1961). *See Hunt v. Blackburn*, 128 U.S. 464, 470, 9 S.Ct. 125, 32 L.Ed. 488 (1888) (the attorney-client privilege is designed to encourage candid exchange of information).

383 F.3d at 1344.

Consistent with those statements by the Supreme Court, The Court of Appeals for the Federal Circuit, and Professor Wigmore, the Section submits that an accused infringer should not be required to waive the attorney-client privilege prematurely. Accordingly, it is the position of the Section that discovery on opinions of counsel should be stayed until after a finding of liability for infringement. Thus, the privilege would only need to be waived in those cases where liability actually is found. Because only about 5% of the patent infringement cases filed in district courts go to trial, and liability at the trial court level is found only in about 60% of those cases that do go to trial, delay of the requirement to waive privilege until after liability has been established would greatly reduce the number of unnecessary waivers of the privilege. See Kimberly A. Moore, *Judges, Juries, and Patent Cases: An Empirical Peek Inside the Black Box*, 98 Mich. L. Rev. 365, 383-385 (2000).

Under the Section's proposal, expedited discovery regarding the issue of willful infringement based on a privileged opinion of counsel would occur during a 30-60 day period immediately after liability is found. Trial of the willful infringement issue would follow promptly after that expedited discovery period.

The Section also favors limitations on a waiver of privilege for a willfulness defense extending to litigation counsel. At present, the scope of the waiver is uncertain. The privilege between a client accused of patent infringement and that client's litigation counsel may be waived

by the mere reliance upon an opinion prepared by other counsel. The possibility of the waiver extending to communications between litigation counsel and the client severely restricts those communications in a manner inconsistent with the public interest.

Accordingly, the Section proposes that the attorney-client privilege protecting communications between a client accused of patent infringement and that client's litigation counsel not be waived with respect to litigation counsel where the client has asserted the defense of reliance on advice of counsel in response to an allegation of willful infringement and where (1) the litigation counsel was at no time involved in rendering the advice upon which the client has asserted reliance; and (2) the opinion relied upon was rendered prior to the service of any summons and complaint alleging infringement.

Additional proposals for reform of the law relating to willful infringement have recently emerged from the Business Software Alliance, the AIPLA, and a Task Force of the Section. The Section is studying those proposals and will supplement this response, if appropriate, after that study is complete.

Best Mode Elimination

"Given the cost and inefficiency of this defense, its limited contribution to the inventor's motivation to disclose beyond that already provided by the enablement provisions of Section 112, its dependence on a system of pretrial discovery, and its inconsistencies with European and Japanese patent laws, the committee recommends that the best-mode requirement be eliminated."

Section Response:

The Section agrees that the best mode requirement should be eliminated as part of a harmonization package. This is discussed in more detail in the Section's response to Recommendation 7.

Inequitable Conduct Defense in Patent Infringement Litigation.

"In view of its cost and limited deterrent value the committee recommends the elimination of the inequitable conduct doctrine or changes in its implementation. The latter might include ending the inference of intent from the materiality of the information that was withheld, de novo review by the Federal Circuit of district court findings of inequitable conduct, award of attorney's fees to a prevailing patentee, or referral to the USPTO for re examination and disciplinary action. Any of these changes would have the effect of discouraging resort to the inequitable conduct defense and therefore reducing its cost."

Section Response:

The Section agrees that changes in implementation of the inequitable conduct defense should be enacted in order to drive down the costs and complexity of patent litigation.

Discussion:

Inequitable conduct is frequently pled, but seldom proven. *E.I. DuPont de Nemours & Co. v. Phillips Petroleum*, 849 F.2d 1430 (Fed. Cir. 1988). Over pleading of inequitable conduct has been labeled a "plague" on the patent system by the Court of Appeals for the Federal Circuit. It appears "in nearly every patent suit, and is cluttering up the patent system." *Burlington Industries, Inc. v. Dayco Corp.*, 849 F.2d 1418 (Fed. Cir. 1988). Changes are required.

Under present law, a finding of unenforceability of even one claim of a patent will render all claims of the patent unenforceable, even when some of those claims are free of any direct taint from the inequitable conduct. An entire patent can become permanently unenforceable because of conduct that relates solely to a claim that covers an invention that may not be commercially significant and, indeed, may never have been asserted or relied upon by the patent owner. As stated in *J.P. Stevens & Co., Inc. v. Lex Tex. Ltd., Inc.*, 747 F.2d 1553, 1561 (Fed. Cir. 1984), *cert. denied*, 474 U.S. 822 (1985):

> Once a court concludes that inequitable conduct occurred, all the claims—not just the particular claims to which the inequitable conduct is directly connected—are unenforceable.

Inequitable conduct is separate and distinct from invalidity even though the defenses might depend on the same prior art reference. *See Minnesota Min. and Mfg. Co. v. Johnson & Johnson Orthopedics, Inc.*, 976 F.2d 1559, 24 USPQ2d (BNA) 1321 (Fed. Cir. 1992) ("[P]roving inequitable conduct does not 'invalidate' a patent. Rather, it renders the patent unenforceable. Although the practical effects may be the same, the legal concepts are quite different."). Because inequitable conduct and invalidity are different, a patent may be unenforceable even though information, such as prior art, withheld from the PTO does not render the claims in the patent invalid. *See Li Second Family Limited Partnership v. Toshiba Corp.*, 231 F.3d 1373, 56 USPQ2d (BNA) 1681 (Fed. Cir. 2000) ("Information concealed from the PTO may be material even though it would not invalidate the patent."); *Merck & Co. v. Danbury Pharmacal, Inc.*, 873 F.2d 1418, 10 USPQ2d (BNA) 1682 (Fed. Cir. 1989) (same). Thus, under current law, it is easier for a party to assert inequitable conduct since the party alleging inequitable misconduct merely needs to show that withheld information, such as a prior art reference, should have resulted in a *prima facie* case of unpatentability and, therefore, was material. Such party, however, is not required, under current law, to prove that the patent claims are invalid in the light of the withheld information.

The Section proposes that a "but for" standard should be applied by the courts in determining inequitable conduct (*i.e.*, the misconduct caused the issuance of one or more invalid patent claims). The "but for" standard is applied in other areas of the law in fraud cases, where materiality is an essential element requiring proof. In such cases, misrepresentations or failures to fulfill a duty to speak is material *only when* the outcome of the case was affected. The law in patent litigation should be the same. Misstatements or failures to disclose that do not affect the outcome of the case, even though reprehensible, have not inflicted any harm on the accused infringer because they have not caused issuance of patent claims that would otherwise have been properly rejected if all the facts had been made known to the USPTO.

The Section contemplates an entirely *objective* standard for determining whether a "but for" relationship exists between the culpable conduct and the consequence. That objective standard would be keyed to how a hypothetical examiner should have treated the examination of the patent. It would be based upon consideration of the prosecution history as a whole, objectively considered. It would, thus, address what such a hypothetical examiner should have

done in disposing of the application for patent in light of the omission of material information or the reliance on a material misrepresentation of information.

The broader materiality rule of USPTO Rule 56 may be beneficial in setting the USPTO standard for disclosure. That broader obligation to disclose can be enforced by the USPTO under its disciplinary authority or otherwise. However, there appears to be no cogent public policy reason for the broader standard in court proceedings. Adoption of the "but for" standard would make it unnecessary for courts to consider the intent element of inequitable conduct in those cases where the claims are found valid (*i.e.*, not proved to be invalid by clear and convincing evidence). It should reduce the cost and complexity of patent litigation.

The Section also proposes that the "all or nothing" rule be abolished. The ability to render all claims of a patent unenforceable by proving inequitable conduct as to any claim has become a prime motivator for many litigants in asserting inequitable conduct as a defense.

In many situations, a single patent may contain claims to related but distinct subject matter. For example, a patent may include claims to a manufacturing process, to an apparatus designed for carrying out the process, and for the resulting product. The failure to disclose prior art or other information that provides the basis for a finding of inequitable conduct may be material only as to some, but not all, of the claims. Under these circumstances, the question as to whether or not to render unenforceable all claims of the patent should be determined by the Court, based upon the equities of the particular case.

The reach of inequitable conduct may even extend to related patents. *Consolidated Aluminum Corp. v. Foseco Int'l Ltd.*, 910 F.2d 804 (Fed. Cir. 1990).

The Federal Circuit in *FMC Corp. v. Manitowoc Co., Inc.*, 835 F.2d 1411 (Fed. Cir. 1987), held that inequitable conduct is an equitable doctrine and to be guilty of inequitable conduct, "one must have intended to act inequitably. *Id.* at 1415. Changing the law to permit the maintenance of objectively valid claims despite the existence of one or more other unenforceable claims, would be desirable. Moreover, the charges of inequitable conduct would be more properly focused on the claims in suit, rather than on unasserted claims of the patent in suit.

The present rule of unenforceability as to all claims, as well as associated patents, sweeps too broadly and lacks proportionality. Because it can be somewhat fortuitous whether certain claims are included in one application, the present law can result in the same conduct being treated differently if the claimed subject matter is included in one application instead of two. While the law clearly should discourage all forms of dishonesty and misrepresentation in dealing with the PTO, the "penalty" now being assessed goes too far. The Federal Circuit's decision in *Rohm & Haas Co. v. Crystal Chemical Co.*, 722 F.2d 1556, 1571 (Fed. Cir. 1983), provides support for balancing these interests. Instead of the "all or nothing" rule, inequitable conduct should be penalized in proportion to the seriousness of the offense and the relationship between the conduct and the patent claims. The Sections submits that placing the burden on the patentee to prove that a certain claim was not tainted by the inequitable conduct is appropriate in these circumstances.

RECOMMENDATION 7:

"Reduce redundancies and inconsistencies among national patent systems."

"The United States, Europe, and Japan should further harmonize patent examination procedures and standards to reduce redundancy in search and examination and eventually achieve mutual recognition of results. Differences that among others are in need of reconciling include application priority ("first-to-invent" versus "first-inventor-to-file"), the grace period for filing an application after publication, the "best mode" requirement of U.S. law, and the U.S. exception to the rule of publication of patent applications after 18 months. This objective should be pursued on a trilateral or even bilateral basis as well as a multilateral basis.""

Section Response:

The Section agrees that the United States should change its patents laws, including by adoption of the first-inventor-to-file principle to achieve greater harmonization with the patent laws in Europe and Japan and, conversely that Europe and Japan should make significant changes to their patent laws, including adoption of a one-year "grace period," abolishing the "self-collision" rule, ending "novelty-only" uses of prior art, and ending "absolute novelty" rules that allow a single, oral, non-confidential divulgation of an invention to bar its later patenting.

Discussion:

The Association favors legislation to adopt the first-inventor-to-file principle in the United States. Doing so will produce greater harmonization among the world's leading patent systems and facilitate efforts at concluding international harmonization agreements that may produce even more significant harmonizing changes to the patent laws. However, the Section does not support harmonization for its own sake. Rather, it supports harmonization when and if the resulting changes can produce improvements to the patent system, *i.e.*, constitute so-called "best practices."

The "Best Practices" Foundation for "First Inventor to File" Principle

In recent harmonization discussions – and parallel efforts to devise domestic legislative reforms – an emerging principle is that so-called "best practices" among global patent systems and incorporated into domestic patent law reforms. A "best practices" patent system presumably would achieve, among other objectives—

- Predictability in assessments of what inventions will be validly patentable.
- Simplicity in the legal principles and concepts that underlie the system.
- Reliability of U.S. Patent and Trademark Office determinations once made.
- Stability in legal doctrines defining patent validity and enforceability.
- Economy in the patent procurement and enforcement processes.
- Promptness in final determinations of patentability and validity.
- Fairness to all categories of inventors, whether individual inventors or inventors affiliated with either small or large entities.
- Balance between providing strong protection for patentable innovations and preserving unfettered freedom to use unpatentable and unpatented subject matter.

Efforts at greater international harmonization of patent laws based upon "best practices" has taken on critical importance during the past decade. Unlike the decade that preceded it, numerous critics of the operation of the patent system become vocal about the need for the patent system to operate more effectively in each of the dimensions used to define "best practices."

The "Best Practices" for Implementing a First-Inventor-to-File System

The Section also favors, in the context of an international patent harmonization agreement, the adoption of a coordinated set of specific changes to the patent statute. These provisions are offered as a set of proposed "best practices" for the implementation of a first-inventor-to-file system.

1. Elimination of the Best Mode Requirement

The Section favors removal of the "best mode" requirement as part of the adoption of a first-inventor-to-file system. Since 2001, repeal of the "best mode" requirement has been viewed as a "best practice" in the context of harmonizing U.S. patent law by BIO, NAM, IPO, and AIPLA. More recently, AIPLA and BIO have reaffirmed their support for the repeal of this requirement as part of the adoption of the first-inventor-to-file rule.

The NRC Report has now adopted the identical recommendation, support the elimination of the "best mode" requirement from U.S. patent law:

> The "best mode" requirement, having no analog in foreign patent law, imposes an additional burden and element of uncertainty on foreign patentees in the United States. This, in addition to its dependence on discovery aimed at uncovering inventor records and intentions, justifies its removal from U.S. patent law.

The NRC rationale for removing the requirement is persuasive, but other considerations also support the repeal. While the NRC cites the burdens and uncertainties for foreign inventors, the same is true for U.S.-based inventors and, as discussed, below is at least as important a factor in supporting repeal of this requirement. Further, the inherent uncertainties – and the greater consequences of an uncertain patent system as patents have grown in economic value and

importance – not only further justifies the change but also makes the change a priority. Finally, both the Section and NRC envision coordinating this reform with adoption of a first-inventor-to-file system. Such coordination serves to magnify the importance of removal of this requirement from the U.S. patent laws.

On the issue of coordination of "best mode" with other harmonization-related changes, such coordination could produce a patent system in which there would be no issues of patent validity that would require discovery of inventor records and inventor intentions in most patent infringement litigations. Except in a few situations where ownership of a patent is at stake and the ownership determination depends upon the individuals named as inventors, the right combination of coordinated reforms – including elimination of the "best mode" requirement – would render irrelevant the personal knowledge or contemplations of an inventor from relevance in patent validity determinations.

The patent validity issues that would remain would be related exclusively to *what the public knew* (prior art), and *what the patent taught* persons skilled in the art (adequate disclosure) relative to the claimed invention. Thus, the potential advantages of elimination of the "best mode" requirement in easing the discovery burdens in patent litigation are more than incremental in the context of a coordinated set of reforms. The result of a packaged set of changes could mean that all inventor-focused discovery could be eliminated in many patent litigations.

It is for this reason that the Section supports a coordinated set of reform to U.S. patent law that includes repeal of the "best mode" requirement. The NRC report appears to reach the same conclusion on the coordination issue based upon the elements of its harmonization-related recommendations.

Thus, the Section to fully endorses the NRC recommendation on elimination of the "best mode" requirement as part of the package of harmonization-related changes to U.S. patent law.

2. Reform of the "In Public Use or On Sale" Bar

The Section also supports, in a harmonization context, repeal of the aspect of the "in public use or on sale" bar to patenting except where the activities at issue (*i.e.*, use, sale, or offer for sale) make the invention "reasonably and effectively accessible" to persons of ordinary skill in the art. Thus, non-informing activities, such as non-informing commercial uses of an invention, are excluded from the reach of the bar.

a) Policy Drivers Underlying a "Forfeiture Bar" – Differences Between a First-to-Invent vs. First-Inventor-to-File System

For a first-to-invent system to operate effectively, it *must* include substantial incentives to file promptly after an invention has been made. The needed incentives to file promptly are particularly important where an invention can be kept secret while it is being commercialized. Absent some patent law doctrine that makes a longstanding non-informing and/or secret commercial use of an invention a bar to patenting, the inventor, in a first-to-invent system, would

have a compelling incentive to defer seeking a patent. The inventor could wait until the invention became public, either though another's public disclosure of the invention or efforts to seek and/or obtain a patent for the invention.

In such situations, the first-to-invent system allows a commercial user that has not abandoned, suppressed or concealed an invention to rely on its early invention date proofs to remove the public disclosure of another as prior art and/or establish priority over the rival inventor and obtain the patent for the invention. If a non-informing commercial use gives the public the benefit from the invention, the commercial user has an argument that there is no abandonment, suppression or concealment. See *Oak Industries v. Zenith Electronics*, 726 F.Supp. 1525, 14 USPQ2d 1417, 1424-25 (N.D. Ill 1989. ("We believe that in order to avoid a finding of suppression or concealment, Zenith need only show that the public enjoyed the use and benefits of the Seattle converters. See *Friction Division Prods., Inc. v. E.I. DuPont de Nemours & Co.*, 658 F.Supp. 998, 1013, 3 USPQ2d 1775, 1786 (D. Del. 1987), aff'd, 883 F.2d 1027 (Fed. Cir. 1989) (unpublished opinion). A noninforming public use, as opposed to a secret public use, will defeat a claim of concealment, at least where the public benefits.")

The incentive to delay filing in a first-to-invent system becomes a compelling one whenever the underlying invention can be practiced on a non-informing basis, *i.e.*, without providing the public a description of the invention and/or enabling it to be reproduced. This arises in part because deriving value from patenting an invention of this type is invariably problematic. Unlike a non-informing use, patenting the invention provides the entire world a disclosure of the otherwise inaccessible technology. It allows competitors to copy and commercialize the invention on a like non-informing basis, *i.e.*, without affording the patent owner a ready means for detecting an infringing commercialization. Moreover, the economic value from patenting the invention may be lost if it can be infringed in any location (*e.g.*, such as by building a single large manufacturing facility in a foreign country where no valid patent has or can be issued). Thus, the incentive to use the patent system to secure an early filing must overcome the potential disadvantage that the invention must be clearly patentable, patented, and enforceable under dozens of patent laws in order to secure meaningful economic value from patenting.

Under a first-inventor-to-file standard, part of the incentive to delay seeking patents for the subject matter while engaging in a non-informing commercial use disappears. If someone else makes the invention public or a rival inventor seeks a patent for it, the delay in seeking a patent by a non-informing or secret commercial user is fatal to the ability of the user to patent the invention – the public disclosure of another immediately bars the secret commercial user's ability to seek a valid patent. Invention date proofs cannot be used to establish priority and allow belated efforts to patent to succeed.

More importantly, a rival inventor who could be victimized by the delay of the secret commercial user in seeking a patent under the first-to-invent system (*i.e.*, who could not successfully establish a defense of abandonment, suppression or concealment) becomes a guaranteed victor under the first-inventor-to-file standard. The unfairness that could result from allowing the commercial user to delay seeking a patent and then snatch patent rights away from a

rival inventor who promptly seeks a patent is eliminated and, instead, it is the rival inventor that can obtain global patent priority.

Thus, under a first-inventor-to-file system the incentive for early filing inherently exists and the ability to "game the system" by deferring the filing of a patent is inherently eliminated. For this reason the policy drivers for retaining (or removing) bars to seeking a valid patent in a first-inventor-to-file system are largely turned on their head.

Whereas extended secret commercial use must bar the commercial user from seeking a valid patent in a first-to-invent system, the first-inventor-to-file standard does not need such an incentive. What becomes important in the situation where one or more inventors are engaged in a non-informing or secret commercial use of an invention is to maintain an incentive for at least one such inventor to come forward and seek a patent.

First-inventor-to-file systems address this issue by *preserving* the right to patent an otherwise patentable invention so long as the invention has not been publicly disclosed or divulged by anyone. Patentability is potentially preserved even if the invention is the subject of a longstanding secret commercial use. The rule preserving potential patentability rather than forfeiting the right to patent, coupled with the threat of a rival inventor filing first, provides a continuing incentive to disclose the invention.

This policy choice means that the subject matter secretly commercially used, once disclosed through the patent system, can be improved upon and/or designed around by others. These activities flowing from the disclosure result in progress in the useful arts in a manner that may not happen or happen more slowly if the subject matter is maintained in secret.

Thus, under a first-inventor-to-file standard, the reasons for barring an inventor from seeking a valid patent after a prolonged period of non-informing or secret commercial use not only disappear, but actually reverse. Maintaining the right to validly patent subject matter even after its secret commercial use provides a continuing incentive to disclose an invention that can then be more readily and rapidly improved by others and otherwise progress the useful arts. Keeping the forfeiture would mean introducing an incentive for perpetual secrecy, impairing what otherwise might be accelerated progress in the useful arts.

b) Metallizing Engineering's Rationale Supports Incentives for Early Filing, But Solely Based Upon the Operation of a First-to-Invent Standard

Removing the forfeiture represents a "best practice" for handling in the patent laws the factual situation described in *Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 68 USPQ 54 (2d Cir. 1946). In *Metallizing Engineering*, the patent owner put a trade secret process into a non-informing commercial use in the United States. The commercial use had continued for more than one year before the patent owner had sought and obtained a patent for the trade secret subject matter. When the patent owner attempted to enforce the patent, the court ruled the patent owner had forfeited the right to patent the invention that had

been placed in a non-informing commercial use. The statutory basis for the court's holding was that the patented trade secret had been "in public use or on sale" under the precursor to the provisions of law now codified in 35 U.S.C. § 102(b).

Judge Learned Hand authored the *Metallizing Engineering* decision. He explicitly grounded the decision on the importance of securing a disclosure of the invention at the earliest possible time. The full policy rationale cited by Judge Hand for the forfeiture doctrine was the following:

> [I]t is a condition upon an inventor's right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy, or legal monopoly. It is true that for the limited period of two years he was allowed to do so, possibly in order to give him time to prepare an application; and even that has been recently cut down by half. But if he goes beyond that period of probation, he forfeits his right regardless of how little the public may have learned about the invention; just as he can forfeit it by too long concealment, even without exploiting the invention at all. *Woodbridge v. United States*, 263 U.S. 50, 44 S.Ct. 45, 68 L.Ed. 159; *Macbeth-Evans Glass Co. v. General Electric Co., supra*, 6 Cir., 246 F. 695. Such a forfeiture has nothing to do with abandonment, which presupposes a deliberate, though not necessarily an express, surrender of any right to a patent. Although the evidence of both may at times overlap, each comes from a quite different legal source: one, from the fact that by renouncing the right the inventor irrevocably surrenders it; the other, from the fiat of Congress that *it is part of the consideration for a patent that the public shall as soon as possible begin to enjoy the disclosure*. [Emphasis supplied.]

153 F.2d 520.

As noted above, the principle policy driver for the forfeiture under a first-to-invent system is that absent a forfeiture, a trade secret holder would be free to wait until another inventor had sought a patent on the same subject matter and only then apply for a patent. The trade secret holder could rely on its earlier reduction to practice to establish its status as the first to invent. It could argue that its longstanding commercial use established that it had not "abandoned, suppressed or concealed" the trade secret technology. If such delaying tactics were permitted, they would arguably be unfair and contrary to a host of policy considerations.

Thus, the first-to-invent system makes an unequivocal forfeiture based upon prolonged secret commercial use an essential feature of the system. An inventor that long delays patent filing while undertaking commercial use of an invention must fail at attempted patenting either because the law finds the activity to represent abandonment, suppression or concealment or a forfeiture under section 102(b). Otherwise, the first to invent would have a risk-free opportunity for delaying filing indefinitely to the public detriment, and then snatch back the patent from anyone else later making the invention and seeking a patent for it.

On the other hand, the first-inventor-to-file system puts every inventor at equal risk of losing the right to patent unless and until a patent filing date is secured. The person who is the first to invent and then delays filing while pursuing a commercial use cannot use the early invention date to frustrate a later inventor that files a patent application first. Instead, the later inventor will be able to obtain a valid patent.

This difference between a first-inventor-to-file standard and the first-to-invent system is fundamental and profound. This difference requires a careful reassessment of the role of the forfeiture provision in the context of moving to the first-inventor-to-file standard, even if patent harmonization does not accompany the move to the new standard.

A careful analysis of the facts of *Metallizing Engineering* in the context of a first-inventor-to-file standard indicates the better policy choice is to eliminate the forfeiture so that the patent incentive remains for all inventors to become the first inventor to file – and make the earliest possible disclosure of new technology. Indeed, it is only this policy choice under a first-inventor-to-file standard that motivates an early disclosure of the invention and it is the patent-incented disclosure that can most readily and rapidly produce progress in the useful arts.

Strong policy reasons, important economic factors, and sound practical considerations argue for removing the forfeiture from the patent law once a first-inventor to file standard is adopted.

3. Elimination of Derivation-Based Prior Art

The Federal Circuit has interpreted existing 35 U.S.C. § 102(f), barring a patent when the patent applicant "did not himself invent the subject matter sought to be patented" to mean that an inventor's personal knowledge learned from another can represent "prior art" that must be taken into account in determining if an invention is non-obvious. *OddzOn Products Inc. v. Just Toys Inc.*, 122 F.3d 1396 (Fed. Cir. 1997).

This decision has proven controversial and has led Congress to consider reversal of the *OddzOn* holding in situations where the knowledge of the invention is obtain through a joint research agreement. The so-called "CREATE Act" was drafted to address and reverse the *OddzOn* holding.

The Section favors, in a harmonization context, a solution to the *OddzOn* situation that consists of two parts. First, codification that the right to seek and obtain a patent is the inventor's right. This eliminates the possibility that a person who derives an invention can be entitled to patent the invention. Because such a non-inventing patent applicant "did not himself invent the subject matter sought to be patented," the "right to patent codification accomplishes literally and precisely what the language of 35 U.S.C. § 102(f) provides.

With the codification of the "right to patent" added to the patent statute, the provision in subsection (f) of section 102 ("he did not himself invent the subject matter sought to be patented") is simply repealed. With the repeal of this section, an inventor's personal knowledge is

unavailable for determining obviousness under 35 U.S.C. § 103. Thus, the *OddzOn* holding is overruled.

Policy considerations that support overruling *OddzOn* include the following:

- It unfairly punishes a true inventor for what he knows. Any other person making the same invention could be entitled to a valid patent for the same invention.
- It encourages ignorance, rather than communication. It makes no policy sense to deny an inventor a patent because he had a private communication with another scientist.
- It obviates the need to make complicated remedial changes to the patent law to eliminate untoward effects, including the CREATE Act.
- It avoids the need in patent litigation to proceed with discovery related to the issue of "what did the inventor know and when and from whom did he learn it"?
- It provides the patent owner a greater degree of certainty and reliability that the patent will not be invalidated because some personal knowledge of the inventor is deemed to render a patented invention obvious.
- It avoids the potential for unrecognized "inequitable conduct" issued based upon a later contention that the inventor had personal knowledge that might have rendered to the invention obvious, but was withheld from the PTO.

This principle continues the protect an inventor against derivation, but does not then punish a true inventor of a claimed invention from validly patenting an invention that is otherwise non-obvious simply because of personal knowledge of the true inventor.

4. Repeal of Other "Loss of Right to Patent" Provisions

The Section favors, in a harmonization context, repeal of the two remaining provisions in 35 U.S.C. § 102 that relate to loss of right to patent. These are 35 U.S.C. § 102(c) (abandonment) and 35 U.S.C. § 102(d) (premature foreign patenting).

The move to a "first-inventor-to-file" system makes it desirable, to remove a set of either little used, increasingly archaic and/or clearly unnecessary or undesirable provisions affecting the right to patent in 35 U.S.C. § 102. This includes removal of the obscure provisions on loss of right based upon "abandonment" and premature foreign patenting under 35 U.S.C. §§ 102(c) and (d). Today, 35 U.S.C. § 102(c) (abandonment) and 35 U.S.C. § 102(d) (premature foreign patenting) are essentially "dead letters." Over the past several decades, no patent has been invalidated for "abandonment" and in fewer than a handful of situations has an issue under 35 U.S.C. § 102(d) even arisen in reported patent cases.

5. Elimination of Use of Invention Dates.

The adoption of a first-inventor to file system necessarily eliminates the use of invention date proofs to antedate a prior-filed application for patent that would otherwise be prior art. This

is the mechanism by which the first inventor to file has a right to secure a valid patent that cannot be patented a second time by a later-filing inventor.

The Section further supports, in a harmonization context, the principle that invention date proofs cannot be used in a 35 U.S.C. § 102(a) context. This permits an inventor making an invention to dedicate the invention to the public through publication of an invention. If invention dates could be used to eliminate such prior art, this ability to dedicate an invention to the public could be frustrated.

More importantly, it would impact on the ability of an inventor to make use of the grace period. If after the publication of an inventor, another inventor could file an application for patent and use invention dates to antedate the inventor's publication, the antedating inventor would be entitled to the patent as the first inventor to file.

For these and other reasons, the "best practice" under a first-inventor-to-file system is to eliminate the use of invention dates for any and all purposes.

6. Prior Art Definition; Elimination of Geographic Considerations in Determining Prior Art

The Section offers, in a harmonization context, a specific definition of prior art.

Desirability of elimination of geographic considerations in determining whether knowledge of an invention is sufficient to qualify as prior art. The "in this country" limitation that U.S. law imposes on non-published prior knowledge should be repealed. This limitation has become increasingly untenable as jet travel has removed geographic barriers on the geographic mobility of persons skilled in the art and modern means of electronic communication have decimated other geographic barriers to information flow. Thus, a more contemporary standard is essential to distinguish knowledge arising from some form of disclosure that ought to constitute prior art from knowledge whose character is such that an invention should nonetheless be regarded as novel and patentable.

In Europe, any divulgation of an invention that is deemed to have been non-confidential can represent a disclosure that constitutes prior art. Such a standard, applied globally, leads to transparently nonsensical and unacceptable results. Entirely secret and inaccessible information to persons skilled in the art nonetheless qualifies as a patentability-destroying disclosure. A number of additional hurdles beyond a single, non-confidential "divulgation have been proposed. One such hurdle would be to impose a requirement that accessibility of the information should be "reasonably possible." The Section does not support a "reasonably possible" standard because of the lack of clarity in the manner this would operate.

The emerging consensus position, while recognizing the desirability of removing artificial geographic limitations, nonetheless retains the essential rationale for imposing such limitations – the more inaccessible the information, the greater the policy interest in disregarding a remote and inaccessible disclosure as prior art. Hence, the emerging consensus standard focuses not on

attempting to make increasingly meaningless geographic limitations, but by on a standard requiring both reasonable and effective accessibility of information to qualify as prior art.

The Section proposes that both concepts – reasonable accessibility and effective accessibility – be separately defined and independently applied to assure a complete and objective limitation on the scope of activities that can constitute prior art. Together, the two concepts – one of reasonableness and the second of effectiveness – are designed to prevent a substantially unavailable and/or unintelligible or non-informing disclosure from qualifying as patent-defeating prior art:

Under the proposal, a disclosure cannot be considered to be "reasonably accessible" unless the efforts required to secure access to the disclosure by a person of ordinary skill in the art are not unreasonable or undue. At one extreme, a disclosure in a database or other searchable repository, such as a cataloged disclosure in a library, would be deemed reasonably accessible. At the other extreme, an unrecorded, oral divulgation whispered by one individual to another that occurred once in a remote and isolated locale, without more, would not by itself establish reasonable accessibility.

A disclosure cannot be considered to be "effectively accessible" unless a person of ordinary skill in the art would be able to comprehend the disclosure and discern its technical import. At one extreme, a publication in the English language appearing in a reputable professional journal would be regarded as effectively accessible. At the other extreme, the subject matter contained in an encrypted electronic file, even if reasonably accessible for downloading on the Internet through a search engine, would not be regarded as being effectively accessible absent the ability to unencrypt its technical contents using reasonable efforts.

This standard has the further advantage of being capable of application in a uniform and harmonized manner by patent offices throughout the world. Thus, it represents a desirable outcome of any negotiations that might lead to a globally applied standard for prior art.

7. Filing of Patents and Published Patent Applications As Prior Art

The Section supports a simplified treatment of the filing of patents and published patent applications as prior art. Published U.S. patent applications become prior art as of their effective filing dates and are available for use in either novelty or non-obviousness rejections. Published PCT applications are treated no differently. U.S. patents are treated no differently from published patent applications.

Because the United States is a signatory to both the Paris Convention and the Patent Cooperation Treaty, the provisions in both these treaties must be observed the determination of prior art based upon a first-inventor-to-file principle. The Paris Convention creates a so-called "right of priority." The United States is obligated to make the determination of a first-filed application for "first-inventor-to-file" purposes by taking into account any foreign-filed application of an inventor if entitled to the right of priority. Thus, in determining whether a patent or published application for patent is earlier filed, the Paris Convention priority filing date must be

used. In contrast, under existing 35 U.S.C. § 102(e), Paris Convention priority filings are ignored in giving prior art status to a patent or published application for patent as of the filing date for the patent or application. See *In re Hilmer*, 149 USPQ 480 (C.C.P.A. 1966).

Second, the Section supports the proposition that an international patent application, published under the Patent Cooperation Treaty, need not have been published in the English language in order for the publication application to represent prior art as of the international filing date under the Treaty. The existing requirement for an English-language publication cannot be maintained in a first-inventor-to-file context and must be removed.

This language limitation on the qualification of a PCT application as prior art was permitted under the reservation taken by the United States with respect to Article 64(4) of the PCT. (In pertinent part, "[a]ny State whose national law provides for prior art effect of its patents as from a date before publication, but does not equate for prior art purposes the priority date claimed under the Paris Convention for the Protection of Industrial Property to the actual filing date in that State, may declare that the filing outside that of an international application designating that State is not equated to an actual filing in that State for prior art purposes.") However, the reservation only applied to a country operating a so-called "first-to-invent" system, *i.e.*, where the *Hilmer* doctrine can be observed so that the Paris Convention priority date need not be used as the date a patent or published application has prior art status.

In addition, the invention date for the claimed invention is no longer used as the reference point for what can be considered prior art. Instead, a patent or a published patent application becomes prior art if the patent or published application for patent is *effectively filed* before the *effective filing date* of the claimed invention instead of before the *invention date* of the claimed invention.

The original rationale for treating patents (and, by extension, published applications for patent) as prior art from the filing date of the patent or application in the first-to-invent system was offered by the Supreme Court in *Alexander Milburn v. Davis-Bournonville Co.*, 270 U.S. 390 (1926). The rationale in part was that the prior art status of the patent or application for patent is to be determined independently of the period of delay in the issuance of the patent (or delay in the publication of the application for patent) once filed. This rationale necessitated the prior art status reach back to the filing date of the patent or applications, *i.e.*, the applicable date had *no delay* existed between the filing and the issuance of the patent or publication of a pending application for patent. For this same policy rationale, the first-inventor-to-file uses the effective filing date as the date prior art status is accorded for both novelty and non-obviousness.

Because the determination of when a patent or application for patent was effectively filed requires consideration of prior-filed applications, not all subject matter in the patent or published application for patent may have the same effective filing date. When the description is effectively filed depends on whether the subject matter described was carried over from an earlier-filed patent application. Some decisions of the courts, however, ignore subject matter from an earlier-filed priority application that is carried over into a later-filed patent or published application in assessing the effective filing date for the "carried over" subject matter. *See In re Wertheim*, 209

USPQ 554 (CCPA 1981). The Section is not intended to follow the *Wertheim* decision, but adopts a simple "whole contents" approach that is contrary to the holding of the court (*i.e.*, the holding from *Wertheim* that is inconsistent with the "whole contents" approach, stating: "While some of the reference patent disclosure can be traced to [the priority application], such portions of the original disclosure cannot be found 'carried over' for the purpose of awarding filing dates, unless that disclosure constituted a full, clear, concise and exact description in accordance with § 112, first paragraph, of the invention claimed in the reference patent, else the application could not have matured into a patent, within the *Milburn* § 102(e) rationale, to be "prior art" under § 103.")

In a nutshell, the proposed treatment of PCT applications permits finality in the scope and content of the relevant prior art to be ascertained sooner (*i.e.*, immediately upon publication of an application for patent), permits a global application of a common prior art standard that would not be possible if National State entry were required for a prior art effect, and permits the inventor to dedicate an invention to the public in a more full and certain manner if a decision is reached not to seek the issuance of patents in the United States and other countries.

The only alternative would be to require National Stage entry under the PCT before a published PCT application would have a prior art effect from its effective filing date. As noted above, this would frustrate and early and final determination of the scope of the prior art, a globally common standard for treating published PCT applications, and the ability to dedicate the invention to the public without the expense of country-by-country National Stage Entry.

Finally, treating published PCT applications in a non-discriminatory manner compared to published U.S. patent applications creates little or no incremental examination burden. The issue of affording foreign language prior art for PCT applications exists in a nearly identical measure even if the English language publication requirement could be maintained in a first-inventor-to-file system. *Every* foreign-language PCT published application constitutes prior art that must be applied to later-filed applications of U.S. inventors. The only issue is the 18-month delay issue: Are later-filed applications of U.S. inventors later than the filing date or the publication date of the foreign language PCT application?

8. Exclusion for Commonly Owned Inventions for Disclosures Made Directly or Indirectly by the Inventor

The Section supports without substantive change two principles of existing U.S. patent law. Unless a statutory bar, *i.e.*, 35 U.S.C. § 102(b), the inventor's own disclosures do not create prior art, whether the disclosure of the inventor alone or through another person. Thus, the so-called one-year "grace period" is preserved, although the inventor will not be able to resort to use of invention dates to remove a pre-filing disclosure made by a third party as prior art.

Second, the Section supports without substantive change the amendments to 35 U.S.C. § 103 made as part of the Patent Law Amendments Act of 1984, excluding as prior art certain commonly owned inventions. Moreover, because of the changes to derivation law

supported by the resolution, it accomplishes – but with greater thoroughness and completeness, the changes to the patent law sought by the sponsors of the so-called CREATE Act.

9. International Grace Period

As under existing U.S. patent law, the Section supports continuation of the so-called "grace period" as a domestic grace period. Thus, it requires that an application for patent be filed within the one-year period in the PTO (or through the Patent Cooperation Treaty). Priority application filing does not qualify as a filing for the purpose of determining whether the filing was within the grace period.

However, the proposal of a Paris Convention priority application would be sufficient to satisfy the one-year requirement, but only if part corresponding changes in the patent laws in Europe and Japan. In this sense, the possibility of an international grace period provides a *quid pro quo* among parties to any harmonization agreement.

10. Obviousness-Type Double Patenting

The proposal makes any new statutory provisions that would create a "first-inventor-to-file" system subject to the existing judge-made law on "obviousness-type double patenting." Thus, the same inventor would not be entitled to obtain multiple patents for the same patentable invention, except by making an appropriate disclaimer of independent terms and separate ownership for the patent deemed to be the second patent for the same patentable invention. Similarly, an assignee taking advantage of the provisions that preclude using certain earlier-filed applications for patent for being applied as prior art against later-filed applications for patent would be subject to the same double patenting considerations that are applied under existing patent law.

CONCLUSIONS

The five-year study of the operation of the U.S. patent system by the NRC has produced a report that challenges the reader to rethink some of the most fundamental precepts that have undergirded the patent law for generations. In most of the areas where the NRC has recommended changes to the patent laws, its reasoning is sound and its perspective disarmingly refreshing. As the Section has worked through the issues raised by the NRC, it has become clear that the package of three principal reforms – first-inventor-to-file and other simplifications of the law of patent validity, elimination of "subject elements" from most patent litigations, and a post-grant opposition that would allow a challenger to seek correction of any mistakes made in issuing a patent – would together have the potential to work a near revolutionary improvement in the efficiency and effectiveness of the operation of the U.S. patent system.

The Section, therefore, would urge the Congress, the United States Patent and Trademark Office, and the various constituencies interested in the operation of the patent system to answer a simple question. Whether inventor, patent owner, or patent challenger, would the benefits of these reforms – the simplification, the elimination of subjective elements, the ability to rely almost exclusively on publicly accessible information in evaluating the patentability of an invention – make the U.S. patent system better or worse?

The essence of a fair and balanced package of reforms is that every constituency finds some feature that is potentially troublesome, but not so troublesome that the benefits of the package do not more than counterbalance any negatives. The best tribute that the Section could offer to the NRC would be to note that, while everyone may object to something in the report, few can rationally question the overall advantages that would flow from prompt enactment of its three fundamental proposals for reforming the patent statute.

Mr. SMITH. Thank you all for your encouraging comments as well as your constructive suggestions.

I'm pleased in looking at everybody's testimony that there seems to be so much agreement. Needless to say, that's not surprising that there's going to be some disagreement, and maybe we can talk about two or three of those issues a little bit more extensively.

Let me go through the print and let me know if you disagree with some of my conclusions.

This is section by section. Section 3, the first inventor to file, the first to file, it's my understanding that everyone supports that, although, Mr. LaFuze, I realize you feel that harmonization only goes so far, and I agree with some of the points that you have made there. But just in general I'm talking about here.

On Section 4, the right to a patent, I think generally everyone supports that or doesn't have a position. Same with duty of candor.

Section 6, the right of the inventor to obtain damages. Paragraph 6 I think most support, though there are some changes and some details to be worked out.

Injunctions is an area—let me come back to that in a minute because I know there is some disagreement.

The same thing on continuation applications. On section 9, post-grant proceedings, expansion of 18-month publication, everyone seemed to support.

Let's see on—let's see. Let me jump over to the other part of post-grant opposition. General support with changes, and does anyone disagree with Mr. Lutton's suggestion for the two windows or are you familiar with that. Does anyone have any strong opposition to that? Just a little bit of a variation of a theme?

I don't want to get bogged down on this, but, Mr. Hawley, yes.

Mr. HAWLEY. Thank you, Mr. Chairman., IPO is actively considering a number of different alternatives. Currently, the Board of Directors' position is that the 9-month window is correct for the procedure as it's defined. If you go to a longer period or a procedure that's more like a revocation, then some of the other features may need to be changed, such as the standard of proof, and it becomes—begins to become quite interrelated.

Quite concerned about long periods of indefinitiveness, particularly for those of our members who need to take advantage of the venture capital system and having their patent at risk for long periods of time for small companies, start-up companies is generally not a good thing for them.

So we are actively considering other alternatives, but at the present time, we support just the 9-month window.

Mr. SMITH. Okay. Mr. Kushan.

Mr. KUSHAN. Genentech is generally in favor of a fixed period after the grant of the patent as the window of opportunity for post-grant opposition proceedings. The main reason for that is on balance as the patent life continues on, we are in a situation where we're about to reach the market with our drug product, and it's extremely difficult to have the scenario of a patent challenge go back to the PTO once we're that close to the market.

There are many concerns about how you balance that. We certainly can appreciate the need for an efficient administrative proce-

dure being available when patent challenges arise, but we have to balance that.

Mr. SMITH. Okay. When it comes right down to it, we're just talking about a few months to differentiate you all, and I don't think in the end that's going to be one of the real areas of disagreement. We'll I suspect be able to work that out.

But another subject that's a little bit more—it's equally if not more critical are injunctions and there is some disagreement there. Mr. Lutton, I think you feel that the current system is not working.

Do you want to explain why? Whereas let's see Mr. Kushan opposes the reform as well. If you'll give your reasons for what' wrong with the status quo as well as whether you see any areas where we can talk more about middle ground?

Mr. LUTTON. Okay. Let me try to do that quickly. The—to summarize the statute currently says that injunctions are available based on principles of equity. What we believe is the courts are not really following that or at least they're not giving it any breadth beyond the cases of national health emergencies. An illustrative case is this Merck Exchange against eBay case that was just decided recently. It was an appeal from the district court in Virginia, where the court balanced equities and believed that an injunction was not appropriate and the Federal Circuit reversed—this was only a month ago—and essentially rejected a number of possible bases for the denial of the injunction and effectively limited it to only national health emergencies.

Our core focus is we'd like to see a little more breadth in the word equity than national health emergencies, so we're looking for any principles of equity, any ability of the Congress to inject back into that standard or reinstruct the courts that this is not just about health. It's about doing equity for this injunctive relief.

Mr. SMITH. Okay. Thank you, Mr. Lutton. The Gentleman from California, Ms. Berman, is recognized for his questions.

Mr. BERMAN. Thank you, Mr. Chairman, and I'd like to express the hope there might be a second round if we still got to stick around here anyway, just because there's so many issues raised by this excellent panel.

Just—my—just taking the area the Chairman was asking about, all four of you agree with a post-grant opposition process; is that correct?

That makes me—let the record show they nodded their heads yes.

Mr. SMITH. Well, with a few changes I think most do support it as a matter of fact.

Mr. BERMAN. Yeah. Well, I think they all support a—we're getting into how long it should be available and other issues, but they all support it.

If—my assumption is you support it because you think it's a more efficient and quicker way of resolving issues of questionable patents than litigation, very expensive litigation.

If that's the case, why doesn't it make sense to open up when a notice of infringement, a letter of infringement has gone out, open up this process at that point for a short window so that this more efficient process can perhaps avoid the need for what now really looks like it might be a subject to litigation, and I guess I'm asking

that to the people who are resisting that, which seems to be everyone except Mr. Lutton.

Mr. LUTTON. Unfortunately so.

Mr. HAWLEY. Yes, I'll address that just very briefly because again our—my mandate from the board is limited to our past resolutions, but I can——

Mr. BERMAN. No, let's just talk among ourselves——

Mr. HAWLEY. Talk among ourselves and we'll be—give you some of the perspectives that, as a result of some of the discussions that we've had. And I think it was best put actually by a good friend in the ABA, who talked about designing a post-grant opposition system which, as you can see from the committee print, has a very large number of features to it. It's one thing to say that it would be wonderful to have a post-grant opposition system and then it's another thing altogether to agree on all of the details that might be incorporated in such a system.

And the point that's typically made is that if you are designing a post-grant opposition system for the purpose of providing some kind of final review for patents that are just issuing from the Patent Office, you design your system in terms of the burdens of proof and the processes and everything else in one way, and if you are really saying that a post-grant opposition procedure is much more than that and akin to what we find in most foreign jurisdictions, which is a revocation proceeding, then you would design it in another way in terms of the rules of evidence that would be——

Mr. BERMAN. But bring that down apart from—I didn't want to address the total post-grant opposition. I understand it's complicated. Just the issue of opening it up after the notice of infringement has gone out. That's what I was asking about.

If one of you could sort of just try to address that aspect of it.

Mr. LAFUZE. If we're not requested to give views of our groups, I would be happy to respond——

Mr. BERMAN. Yeah.

Mr. LAFUZE.—to that. The systems that we have discussed and the systems that are proposed are streamlined procedures. Primary evidence coming in by affidavit or declaration——

Mr. BERMAN. Right. Right.

Mr. LAFUZE. And only a right of cross examination, which is a limited discovery. It's designed intentionally to hold down costs, yet try to get to the meat of the problem.

For patents that are really of great value, there is some concern that if you move all the review process from the litigation from the courts to the Patent Office that there may not be a full opportunity to really explore all the issues that exist. And so I think the theory at least of some of us is that if we try this opposition proceeding to correct mistakes that are made in a relatively short time after a patent issues and let's see how that works first, we can adjust the time as may be needed.

If all the litigation from the courts were moved to the U.S. PTO, I think the U.S. PTO would be so overwhelmed. They don't have the staff.

Mr. BERMAN. Right.

Mr. LAFUZE. They don't have the money. They don't have the——

Mr. BERMAN. Right. Just because of the—my time—it's still flashing. Does that mean I can get another question in.

Mr. SMITH. The Gentleman is recognized for another minute. Yes.

Mr. BERMAN. All right. I mean you can't have patents of great value that are challenged in a short post-grant opposition so I'm not quite sure why the value of the patent is the key here.

But let me just turn to the injunction for a second. I guess this is to Mr. Kushan. You don't want to change the provision on injunction. You want it to—I mean you talk a presumption, but it's pretty automatic—finding of infringement injunction issues. Is that an unfair conclusion?

Mr. KUSHAN. No.

Mr. BERMAN. Okay. Then would you be willing to go with an automatic stay of an injunction pending appeal?

Mr. KUSHAN. That's an option. I think a lot courts do that now, where a district court has found infringement; that the patent is valid and is infringed, and an injunction is appropriate; and then there is a disruption that's possible to the market or to the other party.

Mr. BERMAN. The judges weigh the equity.

Mr. KUSHAN. They can weigh the equity as they do it now. There are many cases recently——

Mr. BERMAN. Why is—if it's good for that, why isn't it good for the injunction?

Mr. KUSHAN. Well, the proposal in the committee print is not bad. What you have in the committee print is a shift in the philosophy of entitlement to an injunction. It's going from an entitlement that the patent owner, with a—this is a valid patent that has been infringed. With that perspective, the property right that is the patent gets its value by being able to——

Mr. BERMAN. What if you took it out of the burden argument, and you just gave the injunction as a tool for a judge to utilize where the judge concluded based on the evidence presented at remedy that this was an equitable way to handle it? You just sort of took it out the presumption that's issued versus presumption that's not issued—just left it as a tool for the judge?

Mr. KUSHAN. Well, a lot of business decisions, particularly in the biotechnology sector, are premised on the patent being able to exclude use that's not authorized under the patent. That premise is very tangibly felt in the biotech sector because it's a fundamental part of the business equation of developing a biotech drug.

Mr. BERMAN. But we know that money can assuage.

Mr. KUSHAN. But in this setting, you know, it's not necessarily a bad thing to force biotech companies to develop different drugs. I mean there is a benefit overall to a system where exclusivity is respected. My—I can only provide a perspective of Genentech. Certainly, we have a reliance on the exclusivity of the patent, and in the absence of evidence that suggests that it should not be granted—an injunction should not be granted—that the equity should tilt in favor of the patent owner.

And again, I'll reiterate. We're dealing with valid patents, not invalid patents. These are valid patents that are infringed. So it's not one of these issues of we don't know whether the patent is of ques-

tionable validity. This is a legitimately issued patent. When you have that setting, you should have the right to exclude, and let the burden fall on the shoulders of the other party to show why an injunction should not be issued.

But again, I don't want to be entirely negative about this topic. The issue seems to be the use of that threat in an inappropriate way to affect litigation and to increase risks and induce settlements that are not appropriate. There are lot of misuses of that threat. I think the Committee can spend some time looking at reforms to the litigation equation that mitigate that risk.

Mr. BERMAN. But there are a lot of misuses of this——

Mr. SMITH. And the Gentleman's time has expired. The Gentleman from Virginia, Mr. Goodlatte, is recognized for his questions.

Mr. GOODLATTE. Thank you, Mr. Chairman. Mr. Hawley, as I mentioned in my opening statement, software and other high tech companies face a serious problem. Many of their inventions and products involve hundreds of patents which must be lawfully cleared for use. In this environment, do you see how the threat of a permanent injunction by one nefarious party could impede the development of innovative products and encourage disproportionate settlements from high tech companies? And if so, what can be done to solve this problem without rolling back permanent injunction, since I understand that's one provision of this legislation you're not happy about?

Mr. HAWLEY. I apologize that I don't fully understand your question, but let me say a few things in response.

The software industry and the microelectronic industry is not unique in having products that are covered by large numbers of patents. We are in the electro photographic copying business, and I think you would be quite amazed at the stack of patents that covers any particular electro photographic machine. There could be thousands.

Mr. GOODLATTE. I understand. One of those many hundreds of patents is challenged and an injunction is issued. What do you do about it if you can't have a——

Mr. HAWLEY. I think——

Mr. GOODLATTE.—different way of handling injunctions than is handled under current law?

Mr. HAWLEY. When you are faced with a patent infringement suit on a portion of a large machine, maybe a small portion, you have a fairly long period of time in which you can evaluate the design around alternatives. Litigation lasts for a very long time. You're usually well aware of the patent before it issues.

Mr. GOODLATTE. But can't the treble damages penalties that are hanging over your head ensue from the date that it's been brought to your attention that the patent might be infringed upon and therefore if you loose that process all during the time that you're doing exactly what you're talking about, you're subject to quite a heavy threat of losses if you do not settle up with this party that may be trying to hold you up from every other aspect of moving forward with your product?

Mr. HAWLEY. Okay. You're getting into the area of treble damages and with respect to treble damages in any serious disputes

you will have ameliorated your risk by obtaining—but exercising your duty of due care and obtaining opinion of counsel, and if the opinion of counsel is that you don't have any other alternative, you design around the patent and go about your business. Otherwise, you're not being—you're not subjecting yourself to treble damages.

So the treble damages hanging over your head is that the committee print addresses itself to is really—the provision in the committee print is really an anti-troll provision in the sense that we are now getting on a fairly regular basis non-specific accusations of infringement that are essentially form letters that are sent to hundreds—I've heard as many as thousands—of companies.

All of those place those hundreds or thousands of companies into a legal limbo.

Mr. GOODLATTE. I've got other questions to ask.

Mr. HAWLEY. I'm sorry.

Mr. GOODLATTE. I'm going to have to cut you short. But let me turn to Mr. Lutton and ask him based upon Mr. Hawley's testimony that permanent injunction is the primary remedy by which patent owners can enforce their exclusive rights, do you believe the injunction provision in the committee print could inhibit legitimate patent owners from getting an injunction in cases in which there are only one or very few patent claims involved in litigation? And if so, do you have some suggestions on how to prevent that problem?

Mr. LUTTON. The answer is no. I don't think it could because the provision in the committee print is simply instructing a court to do equity. It's providing another factor that the court should consider or amplifying a factor that the court should consider in administering equity.

That being said, I would echo again the comments I made earlier that I do believe that what—the core of what we're looking for is a reinjection of principles of equity into the injunctive issue, reempowering courts to decide whether in a particular case an injunction is needed or not. If it is needed, it should be granted. If it's not, it shouldn't.

Mr. GOODLATTE. Let me get in one more question if the Chairman will allow me and just ask all the witnesses if they can tell me why small businesses or independent inventors should support any of the provisions of this print? What's in it for them? Start with Mr. LaFuze.

Mr. LAFUZE. First of all, it's a less costly system. Second of all, it's a more predictable system. In a perfect environment, you ought to be able to go to the Patent Office, take a look at the file wrapper, take a look at what's publicly available and tell what the scope of the patent is and whether the patent is valid or not. The system that we have now is predicated on many different kinds of secrets that are not publicly available. You can't tell easily whether something has been offered for sale what constitutes the bar. You can't tell when somebody may have conceived, reduced practice, used diligence in terms of advancing an invention. There are so many unknowns with the system that we have today that you can't tell really what rights you have very easily. And it's very expensive to litigate them, as we all know. And we need a system that gives a

simpler, fairer, more cost effective, more predictable outcome to the question of what valid rights do you have as a patent owner.

Mr. GOODLATTE. Mr. Kushan?

Mr. KUSHAN. Thank you. Two reforms are going to enhance the ability of the independent inventor and small business to use our patent system.

First, I think it's going to be a very good thing to dispel the myth that the first to invent system has benefits for the independent inventor. As a company that spends millions of dollars in interference proceedings, it's certainly not a cheap proceeding and if—considering as the statistics have shown, that 13 or so people who got—were worse off because of the system over the last decade, it's not benefiting them. A fairer system is one where a true inventor who files an application first gets the patent and there's no fight. There's no cost. It's just over. That's more predictable, more certain, and it will cost a lot less.

The reforms that Mr. LaFuze has walked through also make it clear to understand what you're going to get.

Post-grant opposition proceedings are also valuable to any patent owner, including the independent inventor. The big question that companies face when they see a patent or license offer is whether that patent is valid. If you have an opposition proceeding and your patent has gotten through that proceeding, that's going to be a very solid, definite and certain legal right. And that's going to induce very healthy negotiating processes between the patent owner and the company, and I think everybody who values their patent right is going to want to have that kind of an assurance of patent quality behind it.

Mr. GOODLATTE. Mr. Chairman, do I have your lead to allow the other two witnesses to answer that question or——

Mr. SMITH. The Gentleman is recognized for an additional minute for the other two witnesses to answer.

Mr. GOODLATTE. You each get 30 seconds.

Mr. LUTTON. I think this bill is tremendously beneficial to small business. They benefit from quality of patents. They benefit from predictability in the system, but most of all they benefit from control around damages and injunction abuses. The small business that goes out of business—if they have to spend 5 or 10 million dollars defending themselves, and there's so much of that burden that they're bearing now that this bill will be tremendously beneficial for them.

Mr. GOODLATTE. Thank you. Mr. Hawley.

Mr. HAWLEY. You asked about what the benefits are. All of the benefits that I could think of have already been stolen by my other panelists here, so I would point you to the—again—the injunction provision and the specific reference to encouraging the court to consider in an injunction context whether or not the patentee is actually themselves using the invention. Many small business, small start ups, individual inventors have not yet found the resources to do that. And this would limit their ability to—and their opportunity to negotiate good agreements because of not being users themselves, they are at a disadvantage.

Mr. GOODLATTE. Thank you very much. Thank you, Mr. Chairman.

Mr. SMITH. Thank you, Mr. Goodlatte. The Gentlewoman from California, Ms. Lofgren is recognized.

Ms. LOFGREN. Thank you, Mr. Chairman, and thanks for this hearing.

I have been talking with and listening to my constituents now for some time and advancing the suggestion that this ought to be the Congress that really spends a lot more time on issues of patent law, and I think it's—this testimony today makes clear why that's important. And certainly the draft before us is recognition of the importance of this subject matter.

Having said that, it's not a surprise that we're going to have to work through some of these issues yet and the good news is that we have a great track record of people in the patent community working together to come up with solutions that we can all work with and feel good about.

I note that some of the recommendations in the draft bill we had in H.R. 400 some years ago that was derailed for reasons that I never felt very compelling and hopefully we'll have a better chance this time in keeping valid measures intact in the bill.

But I do want to go into the issue of the injunction. Listening to Mr. Kushan and Mr. Lutton, it occurs to me that your differing viewpoints really are a product of your differing industries, and the things that you're saying are valid. But the differences of opinion relate to the different ways that biotech works as compared to other technology companies. And it seems to me understanding—and I'm sure you would—the point of view of the other guy because of the nature of their business. There's got to be some way to come up with a resolution that works both for biotech and for the computer industry. I'm just convinced that there would be. So I'm hoping and after we leave the witness table, there will be some discussions and brainstorming on how we—and some suggestions that we might look at to kind of solve and reach that kind of accommodation that historically we always have done, and I know we have fine organizations that can facilitate those discussions if necessary.

I wanted to ask a question on the treble damages section—I guess to you, Mr. Lutton—the change that it—if a defendant has received a detailed written notice from the patent owner charging infringement and identifying the specific claims in patent and alleging infringing product. That limitation is that a suitable one from your point of view or would you go with the rest of them?

Mr. LUTTON. I would like to—we would like to see that provision, that part of the bill, removed, and I'll tell you why. The current law is that mere knowledge of a patent can give rise to a charge of willfulness. I do believe the provision that you've got in here today will help take care of that issue. But we believe that all it gives rise to is a more artful form of letter writing. That allows a patentee to write a nicely worded letter, put a defendant on notice of a patent, expose them to triple damage, and we don't believe that's the kind of egregious conduct that should accord—exposure for punitive damages.

We'd like to see instead that portion removed so that instead the law focuses on only cases like copying or violating a court order where there's truly some conduct warranting punishment by triple damages.

The rest of the behavior that we want to incentivize is perfectly adequately incentivized by the threat of a lawsuit alleging infringement and awarding actual damages. So we don't think that this is an area where we need that tripling of damages.

Ms. LOFGREN. Do the other witnesses agree or disagree?

Mr. HAWLEY. Congressman, if I may. The provision that is in the committee print is simply one that you were talking about here, and that is the notice requirement. It's simply one that establishes when the accused infringer has a duty of due care. And it doesn't automatically mean that if they eventually lose, they are going to have to pay treble damages because in most circumstances like that, they will ameliorate their liability by doing a duty of due care thorough investigation. And we think it's appropriate. Our members think it's appropriate. I'm sorry.

Ms. LOFGREN. I don't want to interrupt, but we only have a limited amount of time, and it seems to me—I mean there are some academics that are making the assertion that the creation of the appellate system actually had a result that eliminated the balancing of equities. I don't know if that's true or not, but I think we've all learned that what intend and what actually happens isn't always the same. And the concern I think that's been expressed is not what you've said because there's nothing wrong with what you said, but that it really wouldn't work out in the way that you've outlined. And I don't know the answer, but we are going to have a second round, are we not, Mr. Chairman? No? All right. Then I will—my time has expired, but I would like if I could—and it could be later—Mr. Kushan, you did mention a concern about the definition or prior art in the draft, and I would like to know more about your concerns in that area and we don't have time here. But if you could elucidate that at a later date, I'm very interested in it.

Mr. SMITH. Okay. Thank you, Ms. Lofgren. The Gentleman from California, Mr. Issa, is recognized for his questions.

Mr. ISSA. Thank you, Mr. Chairman. Boy, every question leads to another question.

From a practical matter, if we look at the treble damages question—and I'll take almost anyone's answer on this—but isn't there essentially a problem today that to get treble damages and more importantly to get your legal fees, which is the first step. You know, often they do not use a multiplier, but they at least—you're able to recover legal expenses, which is also part of this willfulness.

Isn't there really conceptually a problem that it's a high burden, and seldom accomplished, and you don't know if you're going to get it 'til the end of the trial. So—and this is for better or worse from my experience with 37 patents and way too much time both before the PTO and in legal proceedings. Don't we really have the question of notice, which obviously everyone runs to some attorney, who, for a price, delivers you an non-infringement opinion, and that sort of—that takes care of you as a practical matter until some future point.

At the present time, that future point is the end of the trial often or very late. As a practical notice if we instructed the courts to move their markman hearings up, to bifurcate and make those first instead of last, even it was a preliminary, if that became the point at which constructive notice is the point at which you could be eli-

gible to pay legal fees, the markman ruling is the point at which you're on notice as to what the patent means. And as an inventor, I have to tell you: I've sent out those letters and I've received those letters over the years, and nobody ever tells you what you're really infringing, because nobody wants to limit their claim, so no one gets specific, and you're right, though. If we pass the law as it is here, you'll simply have more clever letter writing.

So as we're trying to finalize this document, are those thresholds that you believe we should be working toward to try to get to an effective definition of when damages are more than ordinary and then before I let anyone answer on this, 'cause I know we're going to run out of time, as a matter of injunctive relief, my own experience, the judges don't grant it. What they do is they tell you they'll give you effectively the indubitable equivalent—and I can never pronounce that—I apologize, and then what they do is they don't have a bond.

So isn't a major part of the injunctive problem the fact that bonds are seldom ordered as a pre-judgment and injunctions are seldom ordered because you really got to do well on that preliminary injunction. You really have to have five guys you already stopped and went through the whole trial process or you don't get it. And so as a practical matter for inventors, they don't get equity unless the guy has money at the end of the road, because they don't get the injunction, because that's a tough standard, and we're not likely to change it enough, but they also don't get a bond until they have basically until it's going up on appeal. Then 60 days after the judgement is made final, they finally get a bond or a bankruptcy.

Is that an area that we should be working in, and I'd like your comments on it because those are two of the 20 things I've gotten written here that I think we haven't yet refined in our bill.

I guess—since you've been the—Mr. Punitive and Treble Damages.

Mr. HAWLEY. I don't know where to start.

First of all, with respect—there was a comment that you made that I think is illustrative of the problem that we see with the injunctive provision is that you almost automatically thought of the preliminary injunction standards of—and that was what clicked on when you——

Mr. ISSA. Well, because if you don't win at preliminary injunction, you normally don't get an injunction from the judge until the end of the trial.

Mr. HAWLEY. That's true. You don't get an injunction until the end of the trial, but you do get damages up to the point of an injunction.

Mr. ISSA. By the way, just for you edification, I am a little skewed. I worked for 20 years in consumer electronics. Only once did I ever have a lawsuit against somebody that at the end of the day really had to pay. You know, the fact is that in that industry most often you're infringers have a strong tendency to be people with very shallow pockets.

Mr. HAWLEY. Agreed. But to get to your point on willful infringement. The real issue that the committee print addresses is, in my view, and the view of many of my colleagues, is really, as I said

earlier an anti-troll provision. It really eliminates the growing practice of sending out form letters; and, thereby putting hundreds of people on "willful infringement notice." Our members are not upset about having a duty of due care in appropriate circumstances. We think that that's—that willful—that infringers should not be willful, and if they're properly put on notice with the patent number and the product that's involved, we think that's fair.

The problem we have with the form letter is that there is no product. You could take Kodak out of the letter, put Motorola in, and the letter wouldn't change at all. So we are then faced with the prospect of having to go figure out whether—what products they're talking about and that's not always a trivial exercise.

So it's really an anti-troll provision because it's going to cut out a lot of the extraneous legal work that is a result of people protecting themselves from the prospect of treble damages when they get these form letters.

The provision in the committee print also addresses the issue that we've heard in the National Academy of Sciences report and elsewhere where people are intentionally telling their employees not to read patents because they're afraid that the mere fact of reading them will result in a finding of wilful infringement. Under the committee print, you have to have actual notice. You have to copy or you have to have in order for willfulness to kick in. So people should no longer be concerned about reading patents.

Mr. ISSA. Anyone else? With the Chairman's indulgence?

Mr. SMITH. Mr. Lutton. Go ahead.

Mr. LUTTON. Okay. I think we agree with your suggestion that both in the area of triple damage and in the area of injunction, there's a difference between what the law says and what actually happens. And that's one of the reasons why we view both of these provisions as really going to managing risk. And for us, for every lawsuit we're involved in that goes to final judgement, which, leaving my company aside, but for every lawsuit that goes to final judgment, there is 25 more that don't go to final judgment; that get adjudicated or settled ahead of time, and for every one of those, there's 25 letters that were written that never made it to a lawsuit at all.

And so we're really seeing a huge stacking of his risk and everyone of those carries with it the potential threat of an injunction; the potential threat of triple damages, which are not decided until the very end of the road. And so these provisions by bringing some certainty back into how those laws are supposed to be applied and the conditions in which they're going to apply will help eliminate the current conundrum that we're in of all the decisions are decided at the very end and they're all very draconian, and you can't really make any reasonable judgments about which cases should be settled and which ones should go forward because they're all threatening a terrible dramatic remedy. So that's our issue.

Mr. ISSA. Mr. Chairman, recognizing we're out of time and there's no second round, I would only ask that we be able to submit additional questions to the panel and receive back answers in writing.

Mr. SMITH. Okay. And without objection, all Members have that right.

Mr. Issa, thank you for your questions, and it occurs to me you may be the only actual inventor who is a Member of his Subcommittee.

Mr. ISSA. Well, actually only Roscoe Bartlett and myself are inventors, patented inventors in the whole Congress.

Mr. SMITH. Is that right?

Mr. ISSA. And I can't figure out why in the world he's not on this Committee.

Mr. SMITH. And you're glad you are.

Mr. ISSA. It's a conspiracy. Yes, we do have inventors of conspiracy.

Mr. SMITH. The Gentleman from Virginia, Mr. Boucher, is recognized for his questions.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman. I want to apologize first for being tardy at this hearing today. We have the Energy Bill on the floor, and I've been tied up with that for the better part of the afternoon.

But my absence here doesn't reflect a lack of interest in this subject. I happen to think that patent reform is perhaps the.single most important thing that we accomplish in the course of this entire Congress. And I want to commend the various externally interested parties that have come forward and strongly urged the Congress to move forward aggressively on patent reform.

Mr. Berman and I have been discussing this matter for the better part of the last 4 years. We have now structured two separate bills recommending various aspect of steps that could be taken to improve patent quality, and we think generally beneficiate the patent system overall, to the advantage of all parties concerned.

And I want to commend today Chairman Smith for the staff draft or his draft that—I don't want to say it's just the staff—it's Mr. Smith's draft that he has put together. It's a very thoughtful document, and I think it reflects well the debate and the general discussions we've had ongoing for the past some time.

I'm going to take just a few minutes to ask you to comment on several matters.

I have the general sense that the current system insulates the patent examiner; it makes it very difficult for him to acquire information about prior art. It discourages the submission of that information by third parties. It contains a post-grant opposition proceeding which is essentially meaningless. It's a proceeding on the record, decided on briefs. There's no opportunity for the summonsing of witnesses, the cross examination of those witnesses. No live argument before someone who can decide whether the patent was properly awarded or not.

And then at the end of that relatively meaningless and nonparticipatory process, estoppel applies. And so if you have elected to take part in it, you're sort of bound by that judgement. You're precluded from raising the issues in court that could have been raised in the course of that post-grant opposition that you've participated in.

So little wonder that it's not used today. People who have real objections don't see this as a meaningful process.

The injunction that issues when there's a preliminary finding of patent infringement that basically stops the business activity for

whoever the defendant is in that case is also extraordinarily problematic and really interrupts legitimate business activity at the present time.

And I'm wondering in addition to questioning you on the adequacy of the staff bill with regard to these two matters, whether there is anything in your opinion that the bill does not contain that should be a part of it in this overall effort to enhance patent quality.

So my question for those who would care to answer: Do you find the post-grant opposition proceeding that is in the bill to be helpful? Are there aspects of it that you would like to see us improve beyond the provisions you see in the bill? It does, as I understand it, allow for witnesses, allow for argument, and it turns into a real adjudicatory proceeding within the Patent Office the post-grant that today is basically meaningless and the injunction provisions would require an actual showing of irreparable harm, so it would tend to mimic what we are familiar with in terms of injunctions apart from the patent process. That strikes me as helpful. And I would be interested in your reaction to those key provisions and your suggestion for anything else that ought to be in the bill. Who wants to go first?

Mr. HAWLEY. I'm never shy. I'll go first.

Mr. BOUCHER. Good. Thank you.

Mr. HAWLEY. I think what you're referring to is the reexamination provisions that came in with the AIPA bill, and this committee print address two of the issues with that that I think will be helpful.

The first is to eliminate the estoppel effect of the process in the Patent Office and the second is to open it up to more patents. There was a rather severe limitation on the issue date for patents that could be reexamined. There have only been 75 reexaminations, and most people that I've talked to the estoppel provisions are the ones—is the reason that is most often given, and this bill I think takes care of that.

Mr. BOUCHER. Let me just ask if you think the process that is outlined in the bill for that reexamination, what I'm referring to as post-grant opposition, is adequate or do we need to amplify that process, that post-grant process?

Mr. HAWLEY. No. Our position is that the post-grant opposition that is proposed for the first time in this committee print, in conjunction with the improvements to the reexamination provisions, are a good collection of tools for the patentee to use.

We believe that the post-grant opposition procedure that is in the bill, as I've said in my written submission, we agree with virtually every provision that is in there. We think it will be a good system. It will certainly not be a silver bullet. It will not solve all the problems of the world, but it will be a process that we believe people will use and that it will—it is well balanced. To amplify a little bit on Bill LaFuze's comments, it's a streamlined system. It's designed to be finished in a year. It's designed so that that can be accomplished. So it's not a revocation proceedings, which he addressed. So we do think it's a good provision and we support it.

Mr. BOUCHER. And the injunction provision in the bill?

Mr. HAWLEY. The injunction provision in the bill we have more difficulty with because it's not simply a minor—in our view, it's not simply a minor tweaking of the current process. It's a real change. It places the burden on the patentee to establish the need for an injunction, whereas under most circumstances now the injunction is almost a matter of right and the defendant needs to say why it cannot. So that's a major change.

It also begins to import preliminary injunction concepts that—and where the preliminary injunction law is going to be borrowed I'm sure of it and the barrier is very high.

It also encourages the court to determine whether or not the patentee is working the invention themselves, which we feel is akin to a working requirement and will not be seen with favor by small companies and small—and individual inventors.

Mr. BOUCHER. I think I know what you think about the injunction. Mr. Lutton?

Mr. LUTTON. Very quickly. We do support the post-grant. We view it as a second chance to get it right on the patents that matter. We think that second window which I referred to earlier is a critical piece in order to allow us to focus on the patents that really matter.

We're strong supporters of the injunctive provision that's in there, but also believe that there are other ways to get at that same issue, but we like that issue.

I have two other suggestions for you in terms of things that are not in the bill that might be worth thinking about.

One is the submission of prior art by a third party from the outside during the pendency of a patent application with comment so that the interested public can provide the PTO with the benefit of its thoughts on additional prior art.

The second idea is some consideration of whether the burden of proof for invalidating a patent, which is clear and convincing evidence, ought to be lowered in those instances where the patent examiner has not had the opportunity to examine the prior art that is at issue in the challenge later. So clear and convincing may be a appropriate if the patent examiner looked at this art. The patent examiner didn't have that art. It's totally a new challenge. Maybe it's preponderance of evidence.

Mr. BOUCHER. That's a very interesting proposal.

So you're saying keep the clear and convincing evidence standard general but apply a preponderance of the evidence standard where the examiner has not had an opportunity to have benefit of evidence of prior art that whoever wants to challenge the award of the patent happens to have?

Mr. LUTTON. That's right. And I think the rationale would be that the presumption of validity and the clear and convincing evidence standard are premised on an examination of the Patent and Trademark Office. If there was no examination relative to that prior art, why the presumption?

Mr. BOUCHER. Does the availability of a strong and accessible post-grant opposition proceeding where witnesses can be brought in, argument can be held—you get an adjudication before the patent actually leaves the Patent Office—ameliorate to some extent

the burden that this clear and convincing evidence standard general imposes with regard to court proceedings?

Mr. LUTTON. To some extent, but not totally. You have to look at post-grant opposition as a second coarser look at the—or more granular—let me say it that way—more granular filter through which a patent must pass. But it is not—it does not have all of the flexibility and other opportunities over litigation. There are cases that are going to be litigated even after post-grant opposition. But I think it provides another—you can really look at the first examination, which is on average 17 hours, as the first filter. Post-grant for those cases where it's brought a second filter. And then for the cases that are not dealt with that way litigation.

Mr. BOUCHER. Okay. Yes, Mr. Kushan.

Mr. KUSHAN. I just want to briefly emphasize one point about, and it's a cross-cutting point, whether you're talking about post-grant opposition or other issues, focused on PTO activities, one thing that we are concerned about is making sure that we plan for the infrastructure to be sound and fully funded and designed in a way which will be better than the proceedings we have now. In the biotech sector, there are a lot of interference proceedings. If we have that set of rules and practices used to run opposition proceedings, it won't be a very good system and we think you need to consider some structural changes at the PTO to make sure that you have a very well designed group of people running the opposition proceedings. This might be done just by setting up a separate division at the Patent Office to run those proceedings.

The funding issue is also critical, and I think given the constraints we have with assured funding, you need to envision a scenario where we have to prioritize the work of the PTO to make sure that opposition proceedings don't turn into multi-year proceedings because of funding problems. So with that, I'll stop and encourage you to think about how these things will run at the Patent Office as well.

Mr. BOUCHER. LaFuze?

Mr. SMITH. Thank you, Mr. Boucher. Your time has expired. Without objection, Mr. LaFuze, will you respond very briefly?

Mr. LAFUZE. I will. First of all, the intellectual property law section supports the post-grant opposition system that's in place in the bill. And secondly, with respect to injunctions, we don't have a position, so I will only offer my own personal comments on that. I think the injunction issue needs to be broken down into two parts. What happens after a trial is over and a judgment is entered and a judgment and an injunction is being considered pending appeal. And then I think the other one, which is an entirely different circumstance, is what do you do with an injunction when the court of appeals says the patent is valid, the patent is infringed, and the remedies under title V include the possibility of in injunction. I think we need to break those up. There are things we can do with the bond pending appeal. There are things that we can do with attorneys fees if somebody gets an injunction and it turns out they lose on appeal, and the defendant actually has been injured that can be measured somehow monetarily, and I think if we break those two issues apart, separate them, analyze them differently, it will be easier to handle.

Mr. SMITH. Mr. Boucher, thank you for your earlier comments as well as your questions. I might have guessed with all witnesses being lawyers we were going to have a little bit of a problem with time constraints. But we had a lot to discuss today as well.

Let me just make the observation that I think it's evident to anyone who is here that not only is this an important piece of legislation, but we're going to go forward in a bipartisan way and I appreciate the supportive comments on both sides of the podium up here.

We're also serious about going forward in an expeditious way. We have a tentative mark up scheduled for the end of May. That gives us I think a reasonable amount of time to continue our discussions. And we still do have work to do on injunctions and post-grant opposition and a couple of other continuation applications being another area that we need to explore, too.

But we've made a lot of progress, and I appreciate all the agreement and the time that you all have committed to the task.

This is the first, as you know, of a couple of hearings, and we do expect to get to the end with your good help.

Mr. BERMAN. Would the Chairman yield?

Mr. SMITH. Thank you, again. The Gentleman from California is recognized.

Mr. BOUCHER. I just want to make about 20 seconds of comment.

Mr. SMITH. Okay. The Gentleman is recognized.

Mr. BOUCHER. To repeat in my opening statement the congratulation on what you're doing on all this and how you're going about it. And secondly, see if the witnesses other than one of you spoke to the prior—third-party prior art issue—if, in writing you could just give us your position on allowing the Patent Examiner to get third-party prior art between publication and grant. I think that's an issue the committee print doesn't address, which having all your positions would be helpful.

Mr. SMITH. Thank you. Thank you, Mr. Berman, and again thank you, all. We stand adjourned.

[Whereupon, at 6:09 p.m, the Subcommittee adjourned.]

COMMITTEE PRINT REGARDING PATENT QUALITY IMPROVEMENT

Part II

THURSDAY, APRIL 28, 2005

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COURTS, THE INTERNET,
AND INTELLECTUAL PROPERTY,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 12:12 p.m., in Room 2141, Rayburn House Office Building, the Honorable Lamar Smith (Chair of the Committee) presiding.

Mr. SMITH. The Subcommittee on Courts, the Internet, and Intellectual Property will come to order.

First of all, let me express my appreciation to the great interest we have in this hearing today. We probably have the best attendance we have had all year on any hearing. We, of course, had a hearing on the same subject last week, so maybe the interest has been building as well. We expect to have interest by Members and appreciate the three other Members who are here today. This is not the best time necessarily to be conducting a hearing—at noon—but we hope there will be other Members who will stop by before we have a final vote and leave town today.

I am going to recognize myself for an opening statement, and then yield to the gentleman from California, the minority Ranking Member, for his opening statement as well.

Today the Subcommittee on Courts, the Internet, and Intellectual Property will conduct its second hearing on a Committee Print to improve patent quality. The print is based on the leading recommendations developed by the PTO and a broad cross-section of industry and trade associations that are involved in the formulation of patent policy.

There is no shortage of volunteers nationwide who want to testify before this Subcommittee. I assure these individuals and groups that their concerns will be heard and given due process.

Following this hearing, I will work with the Subcommittee Members, the Patent and Trademark Office, and others to develop a bill based on the print, that I expect to move this spring. So I urge all interested parties to work toward areas of compromise and concordance, knowing that no entity or individual will be entirely satisfied with the finished product.

Still, there are areas of agreement and the trajectory is encouraging. Creation of a post-grant opposition system, tweaks to inter

partes reexamination, more expansive use of 18-month publication, a doctrine of a first-to-file construct, elimination of the best-mode requirement, reformation of the inequitable conduct defense, and an overhaul of the willful damages prevention have generated much support. Hopefully, reasoned discussions and good-faith negotiations will generation support for other issues as well. I also want to emphasize that subject matter not contained in the print could still be included in the bill.

Last week's panel featured representatives of larger mainstream industry groups. Today we welcome witnesses from Government, small business, the Academy, and the financial world. It is healthy and necessary to consider as many different perspectives as possible. Such diversity will only lead to a better work product.

I look forward to hearing from the witnesses shortly, and now recognize the gentleman from California, Mr. Berman.

Mr. BERMAN. Well, thanks, Mr. Chairman.

Last hearing, we heard differing opinions about which sections of patent law should be reformed, how those reforms should be accomplished. Some of the witnesses stressed changes in litigation rules for patent cases; others focused on the need to harmonize U.S. patent laws with the foreign patent law. But all the witnesses seemed to agree that bolstering the level of patent quality is integral to a workable patent system.

The whole foundation of the patent system is the idea that the Patent and Trademark Office grants high-quality patents. However, in recent years, and particularly since the State Street decision, a large number of questionable patents have been issued, leading to increased litigation and uncertainty in markets that are heavily dependent on patent rights. There are many possible reasons for the questionable quality—lack of funding resulting from fee diversion; lack of appropriate resources or training materials; an increase in the backlog of patent applications, which I gather—we will probably hear from Mr. Dudas—has become stunning; or even exposure to a new patentable subject matter, such as business method patents.

While the PTO has made great strides in addressing this problem, more needs to be done to restore confidence in the patent system. The Committee Print has provided a useful set of guidelines that identify some of the key areas in need of reform. Some of the provisions are almost identical to the ones Mr. Boucher and I proposed last year. However, an issue we addressed with our third-party prior art submission provision, and which deserves greater attention in the Committee Print or any future legislation, is how to address quality on the front end of the examination process.

I anticipate a spirited discussion today on the merits of some of the proposals in the Committee Print. And I guess I submit a challenge to those critical of certain provisions. If you have a problem with the proposal, help us craft a better solution, because we are planning to introduce a patent bill, as the Chairman mentioned, in the near future. I hope that the many interested groups—and here I guess I want to echo the Chairman—can work together to help us formulate some answers to the problems facing the patent system today.

I look forward to working with you, Mr. Chairman, in drafting this legislation, and yield back.

Mr. SMITH. Thank you, Mr. Berman. And without objection, the opening statements of other Members will be made a part of the record.

Before I introduce the witnesses, I would like to invite you to stand and be sworn in, if you will.

[Witnesses sworn.]

Mr. SMITH. Thank you. Please be seated.

Our first witness is John Dudas, Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office. In a previous life, Director Dudas worked for this Subcommittee, so we welcome him back. He earned a bachelor's degree in finance, summa cum laude, from the University of Illinois and a law degree with honors from the University of Chicago.

Our next witness is Richard Levin, a special friend and president of my alma mater, Yale University. He co-chaired the National Research Council that published a major study of the patent system last year. President Levin studied history at Stanford University and politics at Merton College, Oxford University. He also holds a doctorate in economics from Yale University.

The next witness is Nathan Myhrvold, founder and CEO of Intellectual Ventures, an invention company in Belleview, Washington. He owns 14 patents and has several others pending. Dr. Myhrvold received an undergraduate degree in mathematics and a master's in geophysics and space physics from UCLA. He later earned another master's in mathematical economics and a doctorate in theoretical mathematics and physics from Princeton University.

Our final witness is Darin Bartholomew, senior patent attorney for John Deere & Company. Mr. Bartholomew has practiced intellectual property law for more than 10 years. He earned an electrical engineering degree from Northwestern University, a J.D. from John Marshall Law School, and a Master of Laws from Georgetown University.

Welcome to you all. We have your complete written statements, and without objection they will be made a part of the record. We do ask that you keep your oral testimony, though, to 5 minutes.

And Director Dudas, we will begin with you.

TESTIMONY OF THE HONORABLE JON W. DUDAS, UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY, AND DIRECTOR OF THE U.S. PATENT AND TRADEMARK OFFICE

Mr. DUDAS. Thank you very much, Chairman Smith, Ranking Member Berman, and Members of the Subcommittee. I appreciate your inviting me to testify today and I commend you for holding these hearings on your multi-title Committee Print, which proposes comprehensive changes to our patent system.

The benefits of our patent system have always been obvious to Americans. You're all familiar with article I, section 8, clause 8 of the U.S. Constitution granting Congress the power to promote the progress of science and the useful arts by securing for the limited times to authors and inventors the exclusive right to their respective writings and discoveries. That clause was adopted into the

Constitution without a dissenting vote and without even a recorded debate. History has repeatedly affirmed the wisdom of our Nation's founders in establishing these principles.

The tremendous ingenuity of American inventors, coupled with an intellectual property system that encourages and rewards innovation, has propelled the growth of our Nation from a small agrarian society to the world's preeminent technological and economic superpower. And all of our patented technology finds its way into the public domain within 20 years, freely available to any and all. The success of our system has also been the basis for economic development in nations around the world.

Unfortunately, a growing chorus of critics now questions whether the fundamental patent system will enhance or hinder development in other nations. However, many of the nations questioning the efficacy of that system have become hotbeds for the manufacture and export of counterfeit goods, with more than 90 percent of goods, in some cases in some industries, being counterfeited or pirated. Therefore we must actively educate the world that respect for intellectual property benefits everyone.

Having and promoting the fundamentally right system, however, is not enough. Even the best system in the world can and should improve, and, as you know, at the USPTO our 21st Century Strategic Plan began as directives from the President and Congress that we improve. Recently we've announced three internal reforms to improve our Agency's quality and efficiency. We're increasing transparency, we're internally improving our ex parte reexamination, and we're saving applicants tens of millions of dollars by revamping our process of applicants submitting appeal briefs. We're implementing a multitude of improvements and we plan to do more.

We're also hearing legislative proposals in three general categories, as you mentioned—operational, litigation reform, and the convergence of international laws and best practices. In my view, each of these must center on how the patent system encourages innovation and, more importantly, serves the public at large. We must look at these issues from every angle. We must look at them from the perspective of the independent inventor who may be the next Thomas Edison to the perspective of a large company that believes its innovations are being frivolously tied up in unnecessary legal knots.

As you reflect upon all of the proposals you hear, I urge that you not focus exclusively on litigation nor exclusively on the administrative process. Patent quality begins with the application and it begins with the applicant. And I can tell you that the number one challenge I hear from examiners today is one of application quality. So I'm comforted by Ranking Member Berman, your statement about the beginning of the process both at the USPTO, but we'll take it one step even further back, which is the quality of the application and the quality of the process as it comes into the Office, as well as what happens within the Office. I think all of these issues need to be considered, but one component shouldn't be considered to the expense of others.

We're committed at the USPTO to make sure that our practices and policies promote innovation and the dissemination of new tech-

nologies. While we implement operational reform, we realize that measures within your domain will make valuable contributions to the system. The USPTO and the Administration are enthusiastic to continue working with you closely and be a part of this hearing as you develop reform legislation to ensure that the U.S. patent system remains the world's leader.

Thank you.

[The prepared statement of Mr. Dudas follows:]

PREPARED STATEMENT OF THE HONORABLE JON W. DUDAS

STATEMENT OF

THE HONORABLE JON W. DUDAS

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY
AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY
Committee on the Judiciary

U.S. House of Representatives

"Committee Print Regarding Patent Quality Improvement"

APRIL 28TH, 2005

Introduction

Chairman Smith, Ranking Member Berman, and Members of the Subcommittee:

Thank you very much for inviting me to testify today. I commend you for holding this hearing and last week's hearings on improving the patent system. This is a particularly appropriate time to reflect upon the incredible success of invention and of our patent system in the United States. It was 215 years ago this month that our young nation adopted its first patent statute. On April 5, 1790, your predecessors in Congress passed the final version of the statute, and President George Washington signed it into law on April 10.

Strength of our Patent System

The benefits of our patent system have always been obvious to Americans. You are familiar with Article I, Section 8, Clause 8, of the U.S. Constitution, granting Congress the power "to promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." James Madison wrote in one of the Federalist Papers, "The utility of this power will scarcely be questioned." He was right. That clause was adopted into the Constitution without a dissenting vote -- without even any recorded debate.

The need for a statutory system to examine and grant patents was just as obvious. President Washington signed the first patent statute 215 years ago -- before our Nation even had its 13th state. History has repeatedly affirmed the wisdom of this decision of our Nation's founders. The tremendous ingenuity of American inventors, coupled with an intellectual property system that encourages and rewards invention, has propelled our nation from a small agrarian society to the world's preeminent technological and economic superpower.

The flexibility and strength of our patent system have helped entire industries flourish, rather than perish. Everyone has benefited from the innovative products encouraged by this system. And all of the technology encouraged by the patent system finds its way to the public domain within 20 years -- freely available to any and all.

The success of the patent system is not limited to the United States. It is the basis for economic development in nations throughout the world. Unfortunately, a growing chorus of critics is asking if the fundamental patent system that has been so critical to the growth of innovation and economic success in the United States and other nations will enhance or hinder development in their nations.

Today, many of the nations questioning the efficacy of an intellectual property system have become hotbeds for the manufacture and export of counterfeit goods. Unsurprisingly, some of the nations that allow their citizens to counterfeit and pirate others' intellectual property are the very ones questioning a system that encourages and rewards invention, and discourages copying and free riding.

The USPTO Today and Prominent Issues

In the last several years, intellectual property (IP) assets have become an ever more essential ingredient of economic vitality. In the past, raw materials and other tangible goods were the main drivers of an economy. Today, economic success depends increasingly on intangible, information-based assets, such as the creativity of employees and the knowledge gained from research. As a result, intellectual property-based industries, such as biotechnology and entertainment, now represent the largest single sector of the U.S. economy. In fact, IP industries export more American value to the world than the automobile, automobile parts, agricultural, and aircraft industries combined.

As the clearinghouse for U.S. intellectual property rights, the USPTO is an important catalyst for U.S. economic growth. Through the grant of patents and the registration of trademarks, the USPTO promotes the economic vitality of businesses and entrepreneurs, paving the way for investment capital, research and scientific development.

We are proud of our 200-year-old legacy of partnership with America, providing the tools for our nation to become a technological and economic giant. **To continue this partnership, we must remain the best patent-examination system in the world. To ensure ongoing success, the USPTO must focus on improved quality and productivity. To ensure timely grant of rights, we must reduce our backlog of**

patent applications by increasing our efficiency and taking advantage of our automation efforts.

The improvement of the patent system for the 21st century has several components: Some require legislation, while others can be accomplished by the USPTO through rule making. Several initiatives in the committee print were also part of our Strategic Plan, including expanding the early publication of patent applications at 18 months and assignee filing. We appreciate these being included in your legislative draft.

General Patent Reform

As part of the intense interest in patent reform, there is considerable discussion about "patent quality" and "patent litigation reform." A threshold question is, of course, "Is reform necessary?" While we have much of which to be proud about our system, we believe the answer is a qualified "Yes." For example, we believe the best form of litigation relief may be a robust **post-grant review** system, which permits a less expensive and more expeditious route of reviewing patents than through district court litigation. Because of the importance we place on post-grant review, I would like to elaborate on this particular reform area.

The Review of Issued Patents

Currently, the USPTO has only a limited role in reconsidering patentability decisions after we have issued a patent. The USPTO does **post-grant reviews** of patent claims only under certain circumstances, including,

(1) when a patentee files an application to reissue a patent to correct at least one error in the patent,
(2) when an applicant and a patentee claim the same invention, and an interference is declared between the patentee and the applicant, and the applicant seeks judgment based on unpatentability of patent claims, and
(3) when a patent owner or third-party requests the reexamination of a patent.

Congress has incrementally added to the range of proceedings under the USPTO's jurisdiction under which third parties can obtain an Office review of issued patents. It introduced *ex parte* reexamination in 1980, under which a third party can petition for reexamination of the patent.[1] In 1984, section 135 of the Patent Act was amended to allow issues of patentability, as well as priority, to be included in interference proceedings.[2] In 1999, Congress, as part of the landmark patent reform, the American Inventors Protection Act (AIPA), created *inter partes* reexamination, whereby a third party can participate in the reexamination proceeding and appeal to the USPTO's administrative Board of Patent Appeals and Interferences.[3] And the AIPA's *Inter Partes*

[1] Pub. L. No. 96-517, § 1, 94 Stat. 3016 (1980).
[2] Pub. L. No. 98-622, 98 Stat. 33831 (1984).
[3] Intellectual Property and Communications Omnibus Reform Act of 1999, S. 1948, Pub. L. No. 106-113 (1999).

reexamination practice was expanded in 2002 to afford third parties the right to appeal to the U.S. Court of Appeals for the Federal Circuit.[4]

Although, through these amendments, the USPTO's role in helping guarantee the efficacy of the patent system after patent issuance has grown, none of these procedures alone or collectively have proved sufficient to optimize the USPTO's post-grant capability. Although a patentability challenge can be raised on all grounds in interferences interference proceedings only lead to challenges of patents when a pending application raises a priority issue as to a recently issued patent Further, a third party may file a protest in a reissue proceeding; however, that is rare, and the third party has very limited participation. Apart from interferences and a reissue protest, a third party may challenge the patentability of patent claims in the Office only based on certain prior art references, namely, patents or printed publications via reexamination In addition, except in interferences, a third party cannot conduct discovery and develop evidence necessary to challenge patentability, nor can the third party challenge patent owner evidence by cross-examination.

Some potential challengers also regard *ex parte* reexamination as an insufficient mechanism because, after the proceeding has begun, the third party's participation is limited to one reply, which is available only if the patent owner files a pre-examination statement. As a result, *ex parte* reexamination has not been used by third parties to the degree anticipated. The *inter partes* reexamination procedure established in 1999 was intended to address this defect; however, limitations on that process have led to it being rarely used. In particular, patentees understandably insisted, and Congress legislated, that a challenger in an *inter partes* proceeding be bound by its result by way of estoppel, including in subsequent litigation. However, the lack of such procedural mechanisms as discovery and cross-examination that would be available in litigation appears to mean that challengers have been unwilling to invoke *inter partes* reexamination and risk its estoppel effect. In fiscal year 2003, for example, the USPTO received approximately 355,000 patent applications and issued approximately 160,000 patents. Over the past five years, we have received approximately 1,600,000 applications and issued approximately 900,000 patents.[5] Yet, the total requests for *inter partes* reexamination during the nearly five years for which the procedure has been available, is a mere 85.[6]

Last November, pursuant to the requirement under the AIPA, the USPTO issued a report concerning the "inequities" of the *inter partes* reexamination system. Our report called for some relatively minor changes, and the USPTO recommended three amendments to the Patent Act to improve *inter partes* reexamination, the first two of which require some legislative activity:

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[4] *21st Century Department of Justice Appropriations Authorization Act,* Pub. L. No. 107-273, 116 Stat. 1758, 1899-1906 § 13202 (2002).

[5] U.S. PATENT AND TRADEMARK OFFICE PERFORMANCE AND ACCOUNTABILITY REPORT FISCAL YEAR 2003. http://www.uspto.gov/web/offices/com/annual/2003/index.html.

[6] These *inter partes* reexamination requests included 43 patents from mechanical technologies, 20 in electrical arts, and 22 in the chemical arts.

- Maintaining, but clarifying, the *inter partes* estoppel provisions.
- Permitting the requester additional opportunities to provide input on Office actions.
- Extending the requester's 30-day comment period by permitting the USPTO Director to set the period for response by rule.

Post-Grant Review

It is important to consider that, if parties will be estopped at any level by the result of a post-grant proceeding in the Office, they will generally demand that the proceeding offer a full and fair opportunity to litigate. Viewed in this light, *inter partes* reexamination cannot be a true alternative to district court litigation. As part of our Strategic Plan, we proposed a legislative initiative – Post-Grant Review – to address patent quality, as well as the badly needed patent litigation reform that is being advocated in many quarters. We believe our proposal promotes invention by ensuring that the patent system is fair to all. By "fairness," we mean it promotes a patent system where flaws in issued patents can be quickly and expertly revealed, without exposing a patent holder to frivolous or even mischievous review and uncertainty.

Post-grant review will give the public another vehicle for identifying possible problems in issued patents. Post-Grant Review has great support among all groups, including the bar, technology companies, academicians, and others seeking patent reform. However, I wish to highlight several of the key areas where the Administration's proposal differs from some of the association proposals and how the USPTO's proposal contains special safeguards against the harassment of independent inventors and small businesses:

Timing for open challenge to any issued patent. The USPTO proposal would give the public one year from the day a patent issues to petition for review of that patent. One year is the appropriate length. It gives potential challengers time to learn of the existence of issued patents, study the claims, consult with legal counsel, and gather the necessary research to decide whether or not they want to challenge the patent.

Other proposals set the public challenge period at nine months—based on the European model. The USPTO proposal would require a petitioner to submit a very rigorous initial showing, with all relevant evidence necessary to meet a substantial initial threshold. Only with such a requirement can the Office hope to resolve these cases in the expedited fashion that all those advocating post-grant review seek. We are concerned that nine months may be too short a time for a potential petitioner to prepare the initial showing that would be necessary for this proceeding to be truly expeditious. Moreover, the current period under U.S. law in which a patent may become subject to an interference in the Office is one year. For both reasons, the USPTO would propose that the initial period in which any member of the public may seek review of a patent be one year.

Timing for challenge to issued patents requiring standing. The USPTO has also proposed that after the first year a person who has been threatened on the basis of a patent be able to challenge that patent in post-grant review.

This aspect of the proposal expands post-grant review from being primarily a quality check on the Office to a means of addressing high litigation costs. The principal objections to this aspect of the USPTO's proposal concern whether the caseload level would be too high. Any such proposal should give the Office some flexibility in determining the showing that a petitioner would be required to make before it could establish standing to bring a post-grant review action after the initial period. An effective post-grant regime that includes the possibility of challenge throughout the life of the patent would allow Congress to abandon, rather than seeking to fix, the intrinsically less effective *inter partes* reexamination process.

Scope of the Proceeding. In order for post-grant review to truly be effective, it must be used. The USPTO proposal is robust enough to give petitioners and patentees surety that patentability issues can be put to rest in one proceeding. The USPTO proposal allows the Office to examine every aspect of patentability (e.g., novelty (§ 102), non-obviousness (§ 103), written description (§ 112, paragraph 1)), while leaving equitable considerations largely for the U.S. district courts. Including all bases for patentability for review is an absolute necessity if this new proceeding is to truly reduce litigation costs and improve patent quality.

Threshold Showing. The USPTO would require the challenger to present sufficient grounds to proceed before instituting post-grant review. This is more than a substantial new question of patentability, the reexamination standard, in most cases requiring the challenger to present evidence that if unchallenged would establish unpatentability. We anticipate under this standard the Board would dismiss many petitions without any input from the patent owner. This is one safeguard against abusive or disingenuous filings designed to harass patent owners.

Estoppel. Another mechanism to prevent abuse is to ensure that the Real Party disclosed faces consequences for failing to demonstrate unpatentability. The USPTO proposal would make the results of the proceeding binding on the parties, both of whom would have right of appeal to the Federal Circuit Court of Appeals. During the public challenge period, the petitioner should be bound by the Office's decision regarding unpatentability based on any grounds the petitioner raised. After the public challenge period—when the stakes are known and litigation is a genuine alternative—the petitioner should be bound by the Office's decision based on any grounds the petitioner raised or could have raised.

We look forward to working closely with the Subcommittee as the Committee print moves forward, especially since the USPTO will be the Federal agency responsible for conducting these proceedings.

The USPTO and Tomorrow

The Committee print includes other proposals, from many sources, focusing on ways in which to improve the patent system.

As noted above, we believe that some type of post-grant review will improve the overall character of our patent regime. It is also important to underscore that many of the specific reform proposals addressed by the Committee print are not new. In fact, several of the proposals suggested reflect ideas that have been previously identified and considered by the USPTO.

At the USPTO, we have had experts working on patent-reform issues for decades. We welcome the discussion of many of these initiatives as part of a legislative package that you may introduce later this year.

Conclusion

Let me reiterate to you, the Members of the Subcommittee, that we share your commitment to ensure that our practices and policies promote invention and dissemination of new technologies. While we work to improve our system by internal reform of USPTO operations, we realize that additional measures within the domain of Congress can also make invaluable contributions.

The overwhelming evidence of the history of the U.S. patent system suggests that strong intellectual property protection supports, rather than impedes, innovation. Indeed, for more than 200 years, our patent system has helped American industry flourish, creating countless jobs for our citizens. Advanced technologies have been - and continue to be - nurtured and developed in our Nation to a degree that is unmatched in the rest of the world. In many instances, the availability of patent protection has been integral to these advancements.

In this regard, the USPTO and the Administration look forward to continuing to work with you and the Members of the Subcommittee as you develop reform legislation to ensure that the U.S. patent system remains the world leader.

Thank you, Mr. Chairman.

Mr. SMITH. Thank you, Director Dudas.
President Levin.

TESTIMONY OF RICHARD C. LEVIN, PRESIDENT, YALE UNIVERSITY, ON BEHALF OF THE NATIONAL RESEARCH COUNCIL

Mr. LEVIN. Chairman Smith, Congressman Berman, Members of the Subcommittee, thank you for offering me the opportunity to discuss the National Research Council's recommendations for improving the patent system in the United States. Patents play a crucial role in promoting technological innovation, which is the most important underpinning of economic growth. I'm delighted that the Subcommittee on Intellectual Property is developing legislation to ensure that the patent system continues to serve the Nation well.

The project undertaken by the National Research Council, which I co-chaired with Mark Myers, a retired vice president of the Xerox Corporation, was the most comprehensive review of the patent system in decades. Our committee was perhaps the first to bring together practicing patent lawyers, academic lawyers and economists, business leaders, technologists, and inventors. We started with highly divergent views, but over the course of our deliberations our views converged and we reached consensus on several important recommendations that are reflected in the Committee Print.

We concluded that, on the whole, the patent system is working well and does not need fundamental revision. Yet we did note some causes for concern. The sheer volume of patent applications, especially those involving new areas of technology—the Ranking Member referred to business methods as an example—overwhelm—these new areas overwhelm the patent examination corps in ways that affect the quality and timeliness of decisions. In addition, it's become more expensive to acquire patents, to obtain licenses to patented technologies, and especially to enforce and challenge patents through litigation.

Our recommendations are set forth in greater detail in an accompanying written statement, but here I'd like to emphasize three main themes.

First, Congress and the PTO should take steps to ensure the quality of patents issued. The single most important step would be the establishment of a simple administrative procedure for opposing a patent after it has been granted. The process should be timely and efficient so that uncertainty can be resolved quickly without either inhibiting socially productive investment by competitors in situations where the patent proves to be invalid or by encouraging wasteful investment when the patent proves to be valid.

A new opposition process is needed because the existing inter partes reexamination procedure only permits challenges to be lodged on narrow grounds. It's rarely used and has not proven to be effective. The only way to challenge a patent through the courts is to infringe it and draw either an infringement suit or a demand to take a license. This is an unnecessarily expensive way to resolve doubts about a patent's validity, and disputes take many years to resolve while technology, as we know, changes rapidly.

Patent quality can be improved also by the assiduous application of the nonobviousness standard by the Patent and Trademark Office. The PTO should develop new approaches to gathering informa-

tion about the state of the art in emerging areas of technology, relying on outside experts when patent examiners lack expertise. The committee commended the PTO for the development of guidelines in emerging technology areas, such as genomics and business methods. It's important to offer such guidance promptly as new technologies emerge. The committee also recommended that Congress provide more resources for the PTO to hire needed examiners, to improve its information systems, and to fund a post-grant opposition procedure. Fortunately, the PTO will receive additional funding through the fee increase that was approved by Congress last year.

A second theme, beyond validity, is the harmonization of the United States patent system with the European and Japanese patent systems. Differences among the world's major patent regimes entail wasteful duplication of effort by both inventors and by governments. The committee believes that gains in efficiency from harmonizations would be considerable. The United States is the only country that gives priority to the first person to reduce an invention to practice. Elsewhere, the first inventor to file is given priority. The latter test is objective; the former requires years of discovery, reams of depositions, and hours of trial testimony. Moreover, the U.S. is the only country in the world that requires a patent holder to hold that he has disclosed the best mode of practicing a patent. This, too, is costly and time-consuming to prove. Harmonization with global practice makes sense.

Finally, the committee recommended that Congress mitigate other subjective elements of law that contribute to the extraordinary expense of patent litigation. For example, Congress would be well advised to eliminate or modify the standards governing inequitable conduct. The bill addresses that. There should be penalties for misconduct by patent applicants, but misconduct should not automatically invalidate the patent. Similarly, the doctrine of willful infringement should be modified, because willfulness is subjective and costly to prove, and the doctrine creates the perverse incentive for inventors to avoid the study of prior art lest they fail to cite a patent that turns out to be relevant.

I'm pleased that the legislation developed by the Subcommittee is consistent with the recommendations of our NRC committee. I would suggest, however, that the Subcommittee reconsider the provision allowing the settlement of invalidity claims during the post-grant review process. Settlement would undermine a major objective of instituting a post-grant review, and that is to clarify the grounds on which patents should be granted in emerging areas of technologies. The parties settled may resolve their disputes with one another, but it wont' clarify the law or the practice of the Patent Office for future innovations.

Our committee also recommended that Federal judges faced with resolving validity disputes in infringement cases should have the option of referring the issues concerning validity to the PTO administrative judges, who have expertise in post-grant review.

I would be pleased to answer your questions.

[The prepared statement of Mr. Levin follows:]

PREPARED STATEMENT OF RICHARD C. LEVIN, PH.D.

Good afternoon, Mr. Chairman, Congressman Berman, and members of the subcommittee. I am Richard Levin, President of Yale University and co-chair of the Committee on Intellectual Property Rights in the Knowledge-Based Economy of the National Research Council. The Research Council is the operating arm of the National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine of the National Academies, chartered by Congress in 1863 to advise the government on matters of science and technology.

Although most Academy studies are conducted in response to an agency's or a congressional request, the study we will describe was initiated by the Council's Board on Science, Technology, and Economic Policy (STEP) because it recognized that the breakneck pace of technological change across many industries was creating stresses in the patent system that needed to be examined to ensure that it continues to be a stimulus to innovation and does not become an impediment to it.

Since 1980 a series of judicial, legislative, and administrative actions have extended patenting to new technologies (biotechnology) and to technologies previously without or subject to other forms of intellectual property protection (software and business methods), encouraged the emergence of new players (universities), strengthened the position of patent holders vis-à-vis infringers domestically and internationally, relaxed other restraints on the use of patents (antitrust enforcement), and extended their reach upstream from commercial products to scientific research tools and materials.

As a result, patents are being more zealously sought, vigorously asserted, and aggressively enforced than ever before. There are many indications that firms in a variety of industries, as well as universities and public institutions, are attaching greater importance to patents and are willing to pay higher costs to acquire, exercise, and defend them. The workload of the U.S. Patent and Trademark Office has increased several-fold in the last few decades, to the point that it is issuing nearly 100 patents every working hour. Meanwhile, the costs of acquiring patents, promoting or securing licenses to patented technology, and prosecuting and defending against infringement allegations in the increasing number of patent suits are rising rapidly.

In spite of these changes and the obvious importance of patents to the economy, there had not been a broad-based study of the patent system's performance since the Depression. Accordingly, the National Research Council (NRC) assembled a committee that includes three corporate R&D managers, a university administrator, three patent holders, and experts in biotechnology, bioengineering, chemicals, telecommunications, microelectronics, and software, as well as economists, legal scholars, and practicing attorneys. This diversity of experience and expertise distinguishes our panel from nearly all previous commissions on the subject, as does our study process. We held conferences and public hearings and we commissioned our own empirical research. The committee's report, *A Patent System for the 21st Century,* released a year ago, provides a thoroughly researched, timely perspective on how well the system is working.

High rates of technological innovation, especially in the 1990s but continuing to this day, suggest that the patent system is working well and does not require fundamental changes. Nevertheless, the committee was able to identify five issues that should and can be addressed now.

First, maintaining consistent patent quality is difficult but increasingly important in fast-moving fields. Over the past decade, the quality of issued patents has come under frequent sharp attack, as it sometimes has in the past. One can always find patents that appear dubious and some that are even laughable—the patent for cutting and styling hair using scissors or combs in both hands. Some errors are unavoidable in a system that issues more than 187,000 patents annually, and many of those errors will have no economic consequence because the patents will not be enforced. Still, some critics have suggested that the standards of patentability have been lowered by court decisions. Other observers fault the USPTO's performance in examining patent applications, variously attributing the alleged deterioration to inadequate time for examiners to do their work, lack of access to prior art information, perverse incentives to grant rather than reject patents, and inadequate examiners' qualifications.

Because the claim that quality has deteriorated in a broad and systematic way has not been empirically tested, conclusions must remain tentative. But there are several reasons to suspect that more issued patents are substandard, particularly in technologies newly subject to patenting. One reason to believe that quality has suffered, even before taking examiner qualifications and experience into account, is that in recent years the number of patent examiners has not kept pace with the

increase in workload represented by the escalating number and growing complexity of applications. Second, USPTO patent approval rates are higher than in some other major nations' patent offices. Third, changes in the treatment of genomic and business method applications, introduced as a result of criticisms of the quality of patents being issued, reduced or at least slowed down the number of patent grants in those fields. And fourth, there does appear to have been some dilution of the application of the nonobviousness standard in biotechnology and some limitations on its proper application to business methods patent applications. Although quality appears to be more problematic in rapidly moving areas of technology newly subject to patenting and perhaps is corrected over time, the cost of waiting for an evolutionary process to run its course may be too high when new technologies attract the level of investment exhibited by the Internet, biotechnology, and now nanotechnology.

What are the costs of uncertainty surrounding patent validity in areas of emerging technology? First, uncertainty may induce a considerable volume of costly litigation. Second, in the absence of litigation, the holders of dubious patents may be unjustly enriched, and the entry of competitive products and services that would enhance consumer welfare may be deterred. Third, uncertainty about what is patentable in an emerging technology may discourage investment in innovation and product development until the courts clarify the law, or inventors may choose to incur the cost of product development only to abandon the market years later when their technology is deemed to infringe. In sum, greater certainty about patent validity would benefit innovators, technological followers, and consumers alike.

Second, differences among national patent systems continue to result in avoidable costs and delays. In spite of progress in harmonizing the U.S., European, and Japanese patent examination systems, important differences in standards and procedures remain, ensuring search and examination redundancy that imposes high costs on users and hampers market integration. It is estimated to cost as much $750,000 to $1 million to obtain comprehensive worldwide patent protection for an important invention, and that figure is increasing at a rate of 10 percent a year. Important differences include the following: Only the United States gives preference to the "first to invent" rather than the "first to file." Only the United States requires that a patent application disclose the "best mode" of implementing an invention. U.S. law allows a grace period of one year, during which an applicant can disclose or commercialize an invention before filing for a patent, whereas Japan offers a more limited grace period and Europe provides none.

Third, some U.S. practices seem to be slowing the dissemination of information. In the United States there are many channels of scientific interaction and technical communication, and the patent system contributes more to the flow of information than does the alternative of maintaining technical advances as trade secrets. There are nonetheless features peculiar to the U.S. patent system that inhibit information dissemination. One is the exclusion of a nontrivial number of U.S. patent applications from publication after 18 months, an international norm since 1994. A second U.S. idiosyncrasy is the legal doctrine of willful infringement, which can require an infringer to pay up to triple damages if it can be demonstrated that the infringer was aware of the violated patent before the violation. Some observers believe that this deters an inventor from looking at the patents of possible competitors, because knowledge of the patent could later subject the inventor to enhanced damages if there is an infringement case. This undermines one of the principal purposes of the patent system: to make others aware of innovations that could help stimulate further innovation.

Fourth, litigation costs are escalating rapidly and proceedings are protracted. Surveys conducted periodically by the American Intellectual Property Law Association indicate that litigation costs, millions of dollars for each party in a case where the stakes are substantial, are increasing at double digit rates. At the same time the number of lawsuits in District Courts is increasing

Fifth, access to patented technologies is important in research and in the development of cumulative technologies, where one advance builds on one or several previous advances. Faced with anecdotes and conjectures about restrictions on research scientists, particularly in biotechnology, we conducted a modest survey of diverse participants in the field to determine whether patent thickets are emerging or access to foundational discoveries is restricted. We found very few cases although some evidence of increased research costs and delays and much evidence that research scientists are largely unaware of whether they are using patented technology. During our study, the Court of Appeals for the Federal Circuit ruled that university researchers are not shielded by the common law research exception against infringement liability. This combination of circumstances—ignorance of intellectual property on the one hand and full legal liability on the other—represents an exposure that

universities are not equipped to eliminate by the kinds of due diligence performed by companies and investors.

TOWARD A BETTER PATENT SYSTEM

Our committee proposed seven steps to ensure the vitality and improve the functioning of the patent system:

1) Preserve an open-ended, unitary, flexible patent system. The system should remain open to new technologies, and the features that allow somewhat different treatment of different technologies should be preserved without formalizing different standards, for example, in statutes that would be exceedingly difficult to draft appropriately and equally difficult to change if found to be inappropriate. Among the tailoring mechanisms that should be exploited is the USPTO's development of examination guidelines for new or newly patented technologies. In developing such guidelines, the office should seek advice from a wide variety of sources and maintain a public record of the submissions. The results should then be part of the record of any appeal to a court, so that they can inform judicial decisions.

This information could be of particular value to the Court of Appeals for the Federal Circuit, which is in most instances the final arbiter of patent law. To keep this court well informed about relevant legal and economic scholarship, it should encourage the submission of amicus briefs and arrange for temporary exchanges of members with other courts. Appointments to the Federal Circuit should include people familiar with innovation from a variety of perspectives, including management, finance, and economic history, as well as nonpatent areas of law that bear on innovation.

2) Reinvigorate the nonobviousness standard. The requirement that to qualify for a patent an invention cannot be obvious to a person of ordinary skill in the art should be assiduously observed. In an area such as business methods, where the common general knowledge of practitioners is not fully described in published literature likely to be consulted by patent examiners, another method of determining the state of knowledge needs to be employed. Given that patent applications are examined *ex parte* between the applicant and the examiner, it would be difficult to bring in other expert opinion at that stage. Nevertheless, the open review procedure I will describe next provides a means of obtaining expert participation if a patent is challenged.

Gene sequence patents present a particular problem because of a Federal Circuit ruling making it difficult to apply the obviousness test in this field. This is unwise in its own right and is also inconsistent with patent practice in other countries.

3) Institute an "Open Review" procedure. Congress should pass legislation creating a procedure for third parties to challenge patents after their issuance in a proceeding before administrative patent judges of the USPTO. The grounds for a challenge could be any of the statutory standards—novelty, utility, nonobviousness, disclosure, or enablement—or the case law proscription on patenting abstract ideas and natural phenomena. The time, cost, and other characteristics of this proceeding should make it an attractive alternative to litigation to resolve questions of patent validity. For example, federal district courts could more productively focus their attention on patent infringement issues if they were able to refer validity questions to an Open Review proceeding. The result should be much earlier, less expensive, and less protracted resolution of validity issues than we have with litigation and of a greater variety of validity issues than we have with re-examination even if it were used.

4) Strengthen USPTO resources. To improve its performance, the USPTO needs additional resources to hire and train additional examiners and implement a robust electronic processing capability. Further, the USPTO should create a strong multidisciplinary analytical capability to assess management practices and proposed changes, provide an early warning of new technologies being proposed for patenting, and conduct reliable, consistent, reputable quality reviews that address office-wide as well as individual examiner performance. The current USPTO budget is not adequate to accomplish these objectives, let alone to finance an efficient Open Review system.

5) Modify or remove the subjective elements of litigation. Among the factors that increase the cost and reduce the predictability of patent infringement litigation are issues unique to U.S. patent jurisprudence that depend on the assessment of a party's state of mind at the time of the alleged infringement or the time of patent application. These include whether someone "willfully" infringed a patent, whether a patent application included the "best mode" for implementing an invention, and whether a patent attorney engaged in "inequitable conduct" by intentionally failing to disclose all prior art when applying for a patent. Investigating these questions requires

time-consuming, expensive, and ultimately subjective pretrial discovery. The committee believes that significantly modifying or eliminating these rules would increase the predictability of patent dispute outcomes without substantially affecting the principles that these aspects of the enforcement system were meant to promote.

6) Harmonize the U.S., European, and Japanese patent examination systems. The United States, Europe, and Japan should further harmonize patent examination procedures and standards to reduce redundancy in search and examination and eventually achieve mutual recognition of applications granted or denied. The committee recommends that the United States should conform to practice elsewhere by adopting the first inventor to file system, dropping the "best mode" requirement, and eliminating the current exception to the rule of publication of an application after 18 months. The committee also recommends that the United States seek to have other jurisdictions adopt the practice of a grace period for filing an application. These objectives should be pursued on a trilateral or even bilateral basis if multilateral negotiations do not progress.

7) Consider enacting a narrowly drawn exception from infringement liability for some research activities. Here we do not propose specific legislative language, but we do suggest some principles for Congress to consider in drafting a narrow research exception that would preserve the intent of the patent system and avoid some disruptions to fundamental research.

In making these recommendations, our committee was mindful that although the patent law is designed to be uniform across all applications, its practical effects vary across technologies, industries, and classes of inventors. There is a tendency in discourse on the patent system to identify problems and solutions to them from the perspective of one field, sector, or class. Although the committee did not attempt to deal with the specifics of every affected field, the diversity of the membership enabled us to consider each of the proposed changes from the perspective of very different sectors. Similarly, we examined very closely the claims made to us that one class of inventors—usually individuals and very small businesses—would be disadvantaged by some change in the patent system. Some of the committee's recommendations—universal publication of applications, Open Review, and shifting to a first-inventor-to-file system—have in the past been opposed on those grounds. The committee reviewed very carefully, for example, how small entities currently fare in interference proceedings, examination, and re-examination. We also studied how European opposition proceedings affect small businesses. We concluded they enjoy little protection and in fact are often at a disadvantage in the procedures we propose to change. In short, we believe that our recommendations, on balance, would be as beneficial to small businesses and individual inventors as to the economy as a whole.

I appreciate the opportunity afforded by the committee to testify on our conclusions and would be happy to answer any questions.

Mr. SMITH. Thank you, President Levin.

Dr. Myhrvold.

TESTIMONY OF NATHAN P. MYHRVOLD, CHIEF EXECUTIVE OFFICER, INTELLECTUAL VENTURES

Mr. MYHRVOLD. Thank you, Mr. Chairman, Members of the Committee, both thank you for having me here and for turning your attention to a very important topic of patent reform.

My perspectives today are going to be based a little bit on who I am. I started off as an academic physicist. I started my own company and became a start-up entrepreneur in California in 1983. Microsoft acquired my company and so I became a corporate executive, Microsoft's chief technology officer, for 14 years. Five years ago, I left Microsoft and started Intellectual Ventures, dedicated to the idea of invention and helping inventors. Finally, I'm an inventor myself, so I understand the Patent Office from that perspective.

Now, invention is critical to America; I don't need to remind you of that. One point I think is very important, though, is that the small inventor is critical to America. Forty-five percent of America's patent holders are classified as small entities by the Patent Office. That means they're individuals, they're universities, or

they're small businesses. This cuts across every field of technology no matter how exotic, no matter how cutting-edge. In fact, look at semiconductors, look at nanotech, look at computers. You'll find in those areas that individuals and universities together often have more patents than the biggest companies in the world. It's a diffuse group; it's also a vulnerable group, because they depend on patent law very critically, much more so than the big guys do. So as we approach patent reform, it's very important that we keep them in mind. An unintended consequence of shifting in one area can make the playing field not level for the little guy.

I've studied the Committee Print. There's a lot that I would commend the Committee on and I would agree with. Actually, Chairman Smith summed up a whole series of things. I won't repeat them all. I also want to echo my colleagues' remarks that when you add something like post-grant opposition—I think it's a good move—you've got to make sure that it's funded and resourced. We can't heap more new things on the Patent Office while they still have such a backlog of the work they're supposed to ordinarily be doing.

I've also studied the Committee Print in other ways and, to be frank, there are some things I don't agree with that I think would be harmful. Most important of those, I think, are the rule changes regarding injunctions. Now, patents are designed to give ownership of inventions to inventors, and that ownership isn't conditional on whether they make it or not. That's what our system is. It's perfectly honorable to be an inventor in a university or a small entity that doesn't actually manufacture, in fact licenses to others.

Now, the injunction change, I feel, would really disadvantage the small inventor. It would significantly erode some of their rights. Ironically, it's been proposed as a trial—or as reform to reduce litigation. I'm afraid it would have exactly the opposite effect, increasing the number of litigations and the size and complexity of each litigation. My written testimony explains why.

So we have to be very careful that while we try to reform litigation we don't accidentally create the Trial Lawyers Full Employment Act. If you look around the world, you compare our system to others, you find America has the strongest rights for inventors of any place in the world. There's a bunch of other countries that are very, right up on a par with us. I agree about international harmonization; that's an important thing. So the first rank of countries are very high. If you look at this injunction provision, you can also find countries that have that kind of law, and those typically aren't first-world nations. Those are countries like the Philippines, Peru, or Rwanda. Having strong rights for inventors is a very important thing. We've got to make sure that, going into the 21st century, we have the best possible incentive for all of America's inventors.

One other brief—I've got too many things, actually, to list here. My written testimony covers them. There is, to me, a very surprising loophole for software- or Internet-related things, nontangible items in the Committee Print which would dramatically reduce any royalties due legitimate patent holders for any of these nontangible items. I think the 21st century isn't a time when we

should take an act like that. Clearly the Internet and software and other very intangible things are important to us.

Going forward, the committee has a challenging and interesting task to balance all of these different factors. I will make myself available both during the questions now and at any point in the future to help out in that important process.

Thank you.

[The prepared statement of Mr. Myhrvold follows:]

PREPARED STATEMENT OF NATHAN P. MYHRVOLD

Mr. Chairman and members of the Subcommittee, my name is Nathan Myhrvold. I am very pleased to have been asked to share my views as a scientist and inventor on the patent system with the Subcommittee. My personal history is very relevant to my remarks today, so permit me to introduce myself.

BACKGROUND

As long as I can remember I have been fascinated with science and technology. I pursued science in school, earning a bachelor's degree in mathematics, and master's degree in geophysics and space physics, both from UCLA. I continued exploring other disciplines, getting another master's degree in mathematical economics and a PhD in mathematical physics from Princeton University. I would have finished school much earlier if I had focused on one topic, but to be honest I never met a kind of science I didn't like. This obsession with schooling might have consumed half my life, but for the fact that I started early, entering college at 14, and completing my PhD by age 23.

After Princeton I was hired by Cambridge University in England, working directly for Professor Stephen Hawking. My research area was quantum field theory in curved space time, perhaps one of the most obscure and esoteric scientific disciplines. At that point in my life I would have told you that I'd be an academic researcher. But life has a way of throwing us curve balls. I took a three month leave of absence from working with Hawking to go to the San Francisco Bay Area to help some friends from graduate school on a software project. Before I knew it I was caught up in entrepreneurial fever.

The year was 1984, and the software industry was still tiny. I became the CEO of Dynamical Systems, a software start up with less than a dozen full time employees. After two years of struggling to keep our heads above water, we were acquired by Microsoft. I spent the next 14 years as a Microsoft employee, reporting directly to Bill Gates as Microsoft's first Chief Technology Officer. I could scarcely believe that I went from esoteric theories in physics to what would become the largest software company in the world.

At Microsoft I championed the development of new technology. Microsoft had zero patents and just two patent applications at the time I joined the company. I advocated increases in R&D spending, and patent filing, greatly increasing each of these. In 1991 I convinced the Microsoft board of directors to start Microsoft Research, the first major industrial research lab to be started in more than a generation. Laboratories like Bell Laboratories, GE Research Labs, Xerox PARC, and IBM Research, have made a tremendous contribution to America's preeminence in science and technology. Unfortunately, these institutions were founded 30 to 100 years ago, and there aren't many recent examples. Very few of the new giants of technology have bothered to invest in research and create similar research organizations. Microsoft Research now employs over 700 researchers in seven laboratories, and is ranked as one of the leading research institutions in the world.

I retired from Microsoft in 2000, and founded Intellectual Ventures, a company dedicated to investing in innovation and creativity in the form of invention. The venture capital community exists to help entrepreneurs start and finance new companies—at Intellectual Ventures we help and finance inventors to invent. This includes both full time employees, as well as working with inventors who are university professors, academic researchers, small businesses that cannot afford to patent without help, as well as independent inventors. I meet frequently with inventors from all ranks, and have attached a recent speech on invention given at Princeton University. Our company provides both business expertise and financing to these inventors, and provides inventors with a healthy share of the profits in their inventions.

My business career as a corporate executive has focused on managing innovation and using patents as a business asset. However, I am also an inventor with 17

issued US patents. I'm working on increasing that number; for the last couple years I have filed over a dozen patent applications a year which are still pending in the Patent Office. So, in addition to using patents in business, I am also a customer of the Patent Office and have seen the details of the patent process up close.

Given my varied career, I have seen the patent system from the perspectives of pure academic research, a giant technology company, and finally that of a small business. Each perspective offers different views on the patent system. The Subcommittee will hear from people in many of these directly through the process of these hearings. What I can offer is the views of someone who has experienced all of them.

PATENTS: PROTECTING INVENTIONS

The patent system is a fundamental foundation of America's innovation based economy. Like any other part of the free enterprise system, the patent system offers economic incentive by allowing private ownership. In a way, this is no different than real estate, or other private assets. Private ownership of valuable assets is the basis for the American economy.

The process of invention requires large amounts of the inventor's time, energy and money. In order to create incentive for that expenditure, the inventor gets ownership in the invention for a limited time, after which it passes into the public domain. This system has been a primary driver behind the tide of innovation that has kept America number one in the world for at least the last century. The system that encouraged and sustained great inventors like Thomas Edison, Alexander Graham Bell and the Wright brothers is a critical component of America's 21st Century goals to lead the world in computing, biotechnology, nanotechnology and dozens of other exciting fields.

SMALL INVENTORS: AMERICA'S ECONOMIC ENGINE

The leading component of America's invention output is driven by individual inventors, academic institutions, and small and medium businesses. The Subcommittee has heard testimony from large technology companies, and their trade associations. These firms are important inventors, and they frequently lead the list in terms of sheer number of patents. However what is much less well known is the substantial role that the little guy plays.

According to US Patent Office records, 45% of American patent holders are classified as "small entities" which includes small businesses, universities and individuals.

This pattern is repeated if you look in particular technology areas. I have done empirical research to understand the nature of the invention process, and found some remarkable results. It is not surprising that the entities that hold the most patents on computer processors include corporations like Intel and IBM. However, if you add them up, universities, individuals and small businesses in aggregate have substantially more processor patents than Intel or IBM—indeed more than the two combined. The same pattern is found in every technology field where I have looked. Small inventors have more operating system patents than Microsoft, more networking patents than Cisco and more wireless patents than Qualcomm.

The typical pattern in a technology field is that the top company (or even the sum of the top five or ten companies) has only a small fraction of the patents in that field—often no more than 10% of the patents. Most invention is not done by the largest companies in the field. Invention occurs across the whole spectrum of the economy—from technology giants all the way down to the lone inventor in the garage. Those lone inventors aren't just working on low-tech areas—no matter how technical a field, a huge number of patents are held by private individuals. Critics of the patent system sometimes talk derisively about the "myth of the small inventor", ignoring their contribution. Well, I am here to tell you that small inventors are not only alive and well, but they actually contribute more inventions than the biggest corporations do.

I think that it is very important for the Subcommittee to appreciate the role that small inventors play when considering reforms to the patent system. This is because small inventors depend on the patent system far more than big companies do. The patent system is the only means for the small inventor to get a fair shake, and any semblance of a level playing field.

A large company has financial resources that a small inventor can only dream of. They also have the ability to extract value from their patents a variety of ways. Indeed many large companies use their patents only on a defensive basis—that is a polite way to say that they use their patents to maintain their dominant market positions, rather than actively use them as revenue generators in their own right.

PROTECTING THE SMALL INVENTOR'S RIGHTS

A small inventor, on the other hand, depends almost totally on the patent system to secure his ownership rights in the invention. A small change to patent law can, as an unintended consequence, have catastrophic effects on a small inventor who depends totally on his or her patent rights to survive. A small inventor does not have huge market share and other business assets to fall back on. Worse yet, the small inventor almost invariably winds up competing with large, well funded companies that have every possible advantage. Only the patent system stands tall as the protector of the basic rights of small inventors.

Changes to patent law must be scrutinized carefully to make sure that they do not tilt the playing field in a way that further disadvantages small inventors. They do the bulk of America's inventing and they deserve our support.

PROPOSED PATENT REFORM

I applaud the Subcommittee for its interest in patent reform and I have studied the Committee Print. There are a number of needed reforms that I agree with. In the interests of being concise I will focus here on the most important areas where I think your efforts can be improved, at least from my perspective.

First, I have to be frank and say I am disappointed that there isn't more focus on what I think is the most important aspect of patent quality—namely improving the quality of the patent examination process. Most of the committee print covers rules about patent disputes, and does not address the issues with getting patents examined in the first place. Patent quality starts in the Patent Office itself.

Anybody who is a big customer of the Patent Office, as I am, can tell you that they need some help. The backlog of patents has grown larger, and the waiting time to get a patent has grown with the backlog. Longer waiting is not a recipe for success in a world where the pace of technology is going faster, not slower. Looking ahead, the Patent Office must continue to hire and train new examiners, and keep up with the pace at which invention occurs. This job isn't getting any easier. Many of the proposals in the committee print are likely to increase the burden on the Patent Office. For example, the post-issuance oppositions with discovery will add process and personnel demands.

Simply put, the Patent Office needs adequate resources to do its job. Until the Patent Office is funded adequately to meet the demand for patents, America's inventors are going to be poorly served. I know that funding is a major occupation of Congress, which cuts across many issues including this one. However, without adequate resources, the Patent Office will be stuck in a situation where patent fees continue to rise, as they did last year, without the service improving. This amounts to a hidden tax on innovation. Is that really what serves America best as we enter the 21st Century?

In fairness, I can't complain about the resources without adding that I think the Patent Office does a good job within the constraints it has. Some critics of the patent system like to point to silly sounding patents, like a recent case mentioned in the press of a patent on a peanut butter and jelly sandwich. Or, critics will claim that the patent system is "out of control" and argue that there are many bad patents. These claims are misleading.

Though some bad patents are inevitable, the vast majority of all patents are sound and valid. No serious observer of the patent system has reached any other conclusion. As one example, when patents are re-examined by the Patent Office, the majority of the patents survive all or in part. This is also true in litigation results—there is no data on patents being found invalid en masse in the courts.

It is true that there are also some pretty frivolous sounding patents—indeed there are web sites that feature them, like *www.patentlysilly.com.* Looking at such a site it becomes obvious that the creativity of American inventors covers the full range from the sublime to the ridiculous, but that can leave the wrong impression. Most patents are both serious and valid.

Another area where misconceptions are bandied about is the topic of patent litigation. In a perfect world, property rights would always be respected, but here on Earth disputes are an inevitable reality. Many critics of the patent system wax hyperbolically about an "explosion" or "epidemic" in patent litigation. While it is true patent litigation has risen in recent years, these critics aren't telling the whole story. For example, the number of patent lawsuits each year is actually lower than the number of trademark lawsuits. Historically, copyright lawsuits used to outnumber patent suits, but in the late 1990s patent suits pulled ahead. However, in the last five years, copyright lawsuits have grown over twice as fast as patent suits and are set to overtake patent lawsuits, probably this year. Patent lawsuits are nei-

ther more common, nor are they growing faster, than any other form of intellectual property litigation.

A more telling point is that the number of patents has also grown. It makes sense that with more patents, and more patent holders, there is more opportunity for them to get into disputes. If you divide the growth in patent lawsuits by the growth in patents you find that on a per patent basis there were *fewer* lawsuits in 2004 than there were in 1985. This is hardly the makings of an epidemic. Instead the growth of patent lawsuits reflects the growth of the use of patents, and the growth of technologically innovative companies that rely on patents.

Let me be clear that I agree it is a worthy goal to reduce patent litigation. Litigation saps resources that small inventors could put toward more productive pursuits, like new inventions. Reducing the likelihood of litigation, with the attendant cost, complexity and uncertainty is a worthy goal.

INJUNCTIVE RELIEF FOR PATENT INFRINGEMENT SHOULD NOT BE REDUCED

As a result, I cannot agree with one of the most extreme features of the Committee Print, regarding changes in permanent injunctions. This feature will greatly increase the volume, cost and complexity of patent litigation. It will also harm the small inventor.

The Committee Print changes the way permanent injunctions are granted, reversing principles, practices and legal precedents that date back to the very origin of the Patent Office. Patents are designed to give ownership of inventions to the inventor for a limited period of time. They are property rights. When a court finds that those rights are infringed, and another party is determined to trespass upon those rights, the court may decide to issue an injunction.

The Committee Print weakens and threatens to eliminate the injunctive relief due to the patent holder. It introduces an untested and potentially volatile new condition of "irreparable harm" into the injunction process. To put this in perspective, the Committee Print says, in effect, that it is okay to take the property of the patent holder as long as it won't irreparably harm them. This is tantamount to saying it is okay for a squatter to camp on your lawn as long as the harm to you isn't "irreparable". This flies in the face of the most concepts of property. Furthermore, the test of harm includes the extent to which the patentee makes use of the invention.

The latter point is quite telling. This feature of the Committee Print amounts to tilting the playing field toward large product companies and away from the small business, university and independent inventor.

It is important to note that this proposal to curtail overall injunctive relief for patent owners is not confined to *preliminary injunctions,* which are an altogether different body of law. It makes sense to consider issues like irreparable harm when considering whether to take the extraordinary step of issuing an injunction before trial. This is already common practice in many aspects of the law, including patent law. No change needs to be made here.

The permanent injunctions remedies for patent owners that the Committee Print threatens to minimize—and, in large part, eliminate—are an entirely different animal than a preliminary injunction. Permanent injunctions occur only after a court has fully tried the case. In practice, this usually includes multiple rounds of appeal which occur over many years, so it is not an emergency rush to judgment. Before a permanent injunction is granted, the court will have carefully and definitively answered the question of infringement. In addition, current law and surrounding case law already give the court leeway to decide whether an injunction is appropriate.

Given the protracted legal maneuvering that precedes them, it's not like these injunctions sneak up on you. A defendant typically has many years notice. That time can be used to design around the patent in question. This is commonly done in the technology industry. A design-around renders an injunction moot, because the products no longer infringe. Innovative product companies frequently have the option to avoid injunctions through engineering rather than legal proceedings.

Injunctions come down to an issue of property. The infringer will, by definition, be found to have trespassed on the patent's holder's property, and the injunction is the eviction notice. No other part of property law holds that a lawful property owner must show that he or she is "irreparably harmed" before they can evict a squatter or trespasser.

What motivates this unprecedented taking of private property rights? Proponents of this approach make several arguments, none of which hold water on closer examination.

The first argument is based on a misconception that the patent system exists to cut a special break for companies that manufacture products. The fact is that the patent system exists to protect and encourage inventions, not products.

Products are protected by ordinary commercial law, and the economic incentive to create and sell products is immediate and obvious—the profits that flow from product sales. In sharp contrast, there is no economic incentive for an inventor if others can take and use his invention without justice. The patent system exists to address this by acknowledging the constitutionally guaranteed exclusive rights that inventors have in their inventions. This "exclusive right" is meaningless if in most circumstances inventors cannot have ownership in their inventions, including the right to exclude others.

The public good served by the Patent Office is to stimulate inventors to come up with new technology that can change our world, and see it enter the public domain after a period of time. This point is so important it bears repeating—the patent system exists to protect and stimulate inventions, not products.

Discriminating against patent holders on the basis of whether or not they produce a product disenfranchises some of America's most creative and prolific inventors. This broad group includes: university professors and research scientists, who often make great breakthroughs without having the facilities or resources to manufacture the products commercially; individual inventors who are in the same situation; and, finally small businesses who may commercialize some of their inventions but frequently invent more than they are able to productize simultaneously.

There is nothing dishonorable in an inventor licensing his or her inventions to companies that are in a better position to commercialize the technology. This time honored practice has been around as long as the patent system has. Thomas Edison, Nicola Tesla and other great 19th Century inventors all licensed their inventions out to companies to build them.

The tradition continues to this day. If you use a digital cellular phone, the chances are high that Qualcomm licensed its CDMA technology to the cell phone's manufacturer. DVD players rely on video compression patent technology licensed from a consortium of inventors ranging from Sony to Columbia University, while licenses to patents on inventions from Ray Dolby and his company increase our enjoyment of music. Within the technology industry companies like IBM, Lucent, Texas Instruments, Sony, Philips, Thomson and many others derive significant revenues from patent licensing activities.

THE COMMITTEE PRINT INCREASES THE NUMBER, COMPLEXITY AND EXPENSE OF LAWSUITS

A primary justification advanced for the injunction proposal is that successful and innovative companies need this legislation to beat back a rising tide of nuisance lawsuits originating from greedy trial lawyers and unscrupulous patent holders. I can sympathize with this because when I was Microsoft, I frequently had to deal with patent lawsuits in my role as Chief Technology Officer. Microsoft has the dubious distinction of having been named as a defendant in patent lawsuits 52 times in the last five years, making it the second most "popular" defendant in the country.

So, while I can understand the frustration that my colleagues in large technology companies have, the reality is that the impact of these lawsuits is exaggerated. Some horror stories exist, but they are rare. The magnitude of the supposed problem is not borne out by the statistics.

I was curious, so I did a study counting the total number of lawsuits filed against technology companies by entities that do not produce products. The total of all these lawsuits over the last five years was just over 2% of all patent lawsuits. Furthermore, fully half of those lawsuits are from one very litigious company. Those horror stories aren't about an epidemic, or a situation that is out of control—it is actually a very minor phenomenon. I also counted the number of patent lawsuits in which a large technology company was the plaintiff—the result is 1.6%. Large technology companies generate nearly as many lawsuits as the entities that have no products.

These numbers put some perspective on the problem. On one hand, we have the potential to harm tens of thousands of small inventors. On the other hand we have the supposed benefit—to reduce the total number of lawsuits by perhaps one percent. It seems clear that the cure is far worse than the disease.

This is particularly true because the proposal in the Committee Print won't decrease litigation at all. In fact, it will dramatically increase the number of patent lawsuits, as well as their complexity and cost. Ironically, this proposal, which is often described as being yet another much needed and important reform against the excesses of trial lawyers, is in fact the trial lawyers' full employment act.

First there is the volume of the lawsuits. Today, about 97% of the patent lawsuits that are filed settle prior to a trial. The entire viability of the court system depends on this high settlement rate. Even a small change would overwhelm the courts with vastly more trials. Yet under the proposal, large companies will have no reason to

settle. Their principal motive in settling a patent suit before trial is to avoid the possibility of an injunction should the company be found to be infringing, and to avoid enhanced damages should their unauthorized use of property be found to be willful. Without these threats, companies being sued will adopt the best strategy for their shareholders: refuse to settle and use the advantage of their deep pockets to drag lawsuits out to the bitter end, secure in the knowledge that no injunction can get in their way.

The complexity of the litigation also increases substantially, because now several new issues have been added to the already complex decision making process of the courts. In addition to determining infringement, the courts must also try an entirely different set of facts. The Committee Print directs that the court "shall consider and weigh evidence that establishes or negates any equitable factor relevant to a determination of the existence of irreparable harm, including the extent to which the patentee makes use of the invention".

In simple terms, this is a second lawsuit tacked onto the original lawsuit, complicating the already difficult patent litigation with an entirely new set of issues. Provisions like "consider and weigh evidence" mean a whole new area for motions, discovery and argument in court. As it stands, patent lawsuits can take five to seven years, and in some cases even longer. This new process will add substantially to this timetable.

This isn't the only new complexity thrown at the courts. By reducing or eliminating the right to an injunction, the courts are for the first time put in the position of determining the terms and conditions under which technology is licensed on a broad scale. Instead of the marketplace, courts will now be the primary determinant of licensing terms.

This also greatly adds to the complexity of the litigation. Under current patent law, the court may determine damages for past usage, but the court explicitly does not interfere in the market for future use of the patents. Instead, the court determines whether the property of the patent holder is being used—if it is, then the court issues an injunction and the two parties must work out for themselves what to do. In many cases there is no future use, because the infringer will use the many years that it took for the case to wind its way through the courts to redesign their product. In other cases the infringer and patent holder decide to settle based on their unfettered negotiations, which take into account the full panoply of market factors and competitive alternatives available in the modern economy.

Instead, under the proposal in the Committee Print, the court would have to set future licensing terms. Economists have a name for this scheme—it is called compulsory licensing. Numerous studies have shown that it is a poor way to run a patent system. It is also out of keeping with the key principles of the American economy and Constitution of the United States.

The decision-making process inherent in this huge new responsibility will weigh heavily on the courts. Current courts already expend a lot of time and energy determining past damages. Adding the future, which might stretch for a decade or more depending on the life of the patents, greatly raises the stakes. Higher stakes generally means more arguing on yet another issue—what should the future damages be? One thing seems certain: this proposal would be a boon for expert witnesses and the trial lawyers who deploy them.

Some critics of the patent system ask "why aren't monetary damages enough? Why are injunctions needed?" There are several answers. Corporations fear injunctions, and that's what brings them to the settlement table, yielding a 97% settlement rate. Determining commercial use and setting license fees will greatly complicate the litigation process. But perhaps the most important reason is that this compulsory licensing proposal will inject court mandated control over future licensing rather than allowing the parties to work out a market-oriented solution.

THE PROPOSED CHANGES WOULD GUT PROTECTION FOR COMPUTER-RELATED INVENTIONS

The injunction proposal is the topic in the Committee Print that I feel most strongly about. However, there are several other areas that deserve some comment. The Committee Print has an innocuous-seeming amendment to Section 271(f) of title 35 in the patent code. Unfortunately, this amendment would dramatically strip the rights of patent holders and would deal a serious blow to small inventors working in what is otherwise one of the most exciting and dynamic areas of the American economy.

Section 271(f) is in plain terms a law designed to prevent patent holders from being cheated by unscrupulous exporters. Patent law holds that export of a patented invention outside the United States is a use of the invention, just as much as sale

inside the country would be. Both export and domestic sale are on the same basis. Section 271(f) was intended to close a loophole and prevent a company from exporting components rather than an entire invention. It has worked well in that purpose and substantial case law has developed around it.

Incredibly, the amendment proposed in the Committee Print creates a gaping loophole for software, or any invention that includes software. It requires that any "component" under 271(f) be a tangible item—thus exempting software altogether. It additionally requires that the tangible item "is itself combined physically with other components to create the combination that is alleged to infringe".

Translating this to plain English, it means that a software company could exploit the loophole created by this provision to export software without it counting as an export. Software would not qualify as a "tangible item", particularly if it was exported by transmission over the Internet or another computer network which these days is the dominant way software is shipped and sold. Software composed of multiple software components—as virtually all software is these days—would also not count. Most software companies have the majority of their revenue come from outside the US, so this provision would at a single stroke cut the licensing revenues due a valid software patent holder by a factor of two or more.

Software is not the only beneficiary of the loophole created by this provision. Any invention that combines software and hardware could also be able to use the loophole by simply exporting the hardware physically, then downloading software to it. Literally millions of inventions, ranging from aircraft navigation systems to videogames and toys would suddenly have their exports made immune from justice.

What justification can there be to strip America's inventors of the revenue from these exports? It is hard for me to imagine how, at the onset of the 21st Century, anyone could pretend that only "tangible items" have value when the Internet has become a ubiquitous channel for commerce, and software is a multi-hundred billion dollar market.

THE PROPOSED CHANGES WOULD REWARD WILLFUL PATENT INFRINGERS

The topic of willful infringement is clearly an area of patent law where reform is needed. The current willfulness standard should be clearly reviewed. However, I cannot support the Committee Print which goes too far in reducing the conditions under which a company can be found liable for willfulness.

Note that willfulness goes hand in hand with the injunction issue. If large corporations know that they don't have to worry either about an injunction or about an increased financial penalty due to a finding of willfulness, then they can infringe at will. At worst, a court will make them pay a license fee, but even that is not certain because the court might not make such a finding. Even if a court eventually rules against them, the infringer can delay for many years. The best strategy for a large company is simply to infringe widely, and refuse any negotiation with the patent holder.

This creates an incentive for exactly the kind of behavior the patent system is supposed to oppose. This is another example of a reform that, as an unintended consequence, would increase the volume of patent litigation by motivating companies to infringe. Small inventors would be adversely affected because their only means to bring such deliberate infringers to heel is to resort to expensive litigation they can ill afford.

POST-GRANT OPPOSITION PROCEDURE WILL REQUIRE GREATER PATENT OFFICE RESOURCES

Post-grant opposition to a patent is a concept that has been proposed in various forms for many years. The value of post-grant opposition is that it gives the marketplace the opportunity to be heard and to help the Patent Office. However, this is appropriate only if done for a limited time after issuance, with a strict time limit on the opposition proceedings, and with conditions that would prevent it from being used to manipulate the system. Otherwise this would become yet another protracted and expensive dispute mechanism which would disadvantage small inventors. It could also be yet another full employment act for lawyers. The Committee Print proposes a nine month limit from time of patent issuance. This is a reasonable compromise.

However, I would caution the Subcommittee that any post-grant opposition of this sort will greatly increase the workload for the Patent Office, and will therefore require additional resources. It does not seem reasonable to ask the Patent Office to take on additional duties knowing that they lack the necessary financial resources to do so. Frankly, the Patent Office backlog is too long as it is, and if post-grant opposition takes resources away to make the backlog worse, this would be a net neg-

ative for the patent system. Indeed, improving the patent examination process by giving the Patent Office adequate resources would do more for patent quality than post-grant oppositions would, and would reduce the need for them.

THE PROPOSED RESTRICTIONS ON CONTINUATION APPLICATIONS SHOULD BE RECONSIDERED

The filing of continuations to a patent application is a longstanding and valuable mechanism which has great merit in the patent system. Small inventors (and many large inventors) often use continuations because they cannot afford to put all of their ideas into their first patent on an invention. So, they describe the invention via the patent specification, and make their initial set of claims. Later, they can file a continuation which draws new claims, but only within the boundaries of the original specification. This is a well-established practice that has developed a clear body of case law around it, and has the important feature that small inventors can devote their scarce resources to protecting specific inventions first (e.g., the core invention of a start-up company) while pursuing protection for the broader concepts in a continuation application. It therefore rewards both early innovation and ongoing creative invention

The Committee Print seeks to place new conditions on the filing of continuations. However, the terminology used in the Committee Print removes an important inventor's right by requiring that patent claims in continuations cannot be "broader in scope than the broadest claim" in the original case the continuation stems from.

Limiting continuation applications in this manner would unfairly bias the patent system against the small inventor, and would result in many legitimate inventions going unprotected by the patent laws, resulting in decreased innovation due to removal of this protection.

Moreover, this odd provision seems intended to solve a problem that no longer exists, namely the former situation where a U.S. patent expired 17 years after its issue date, which encouraged certain irresponsible patentees to drag the patent procedure out for decades, obtaining a new 17-year term for each issuing patent. This scheme has been eliminated by the adoption in the U.S. of a patent term of 20 years from the filing date, which is the international standard.

In addition, the practice of reissue applications already incorporates a requirement that no broadening claims can be pursued more than two years after a patent issues. The Committee Print would create a conflict in the law by preventing a patent applicant from pursuing broader claims in a continuation application, even though he or she would be allowed to pursue a broader claim in a reissue of the parent patent, even at a later date.

This provision is thus both unnecessary and in conflict with other portions of the patent law, and would cause many properly patentable inventions to go unprotected, stifling innovation by encouraging companies to copy rather than invent.

PATENT QUALITY: IN EVERYONE'S BEST INTEREST

Lest it seem that I am unduly negative on the Committee Print, I hasten to add that there are many features that I think are positive moves which will strengthen the patent system. This includes reform to the concept of "best mode" implementation. I appreciate the Committee Print proposal to limit rampant assertions of inequitable conduct, the growth of which has been referred to recently as a "virtual plague." Of course, I would encourage the Subcommittee to consider carefully the actual implementation to insure that it cannot be manipulated for delay or leverage.

Another benefit is increased transparency through the publication of all patent applications is another important reform. These are important contributions which will strengthen the patent system for all participants.

An area of particular importance is the harmonization of U.S. patent law with international patent law. This is critical for promoting American exports, and aids small inventors who lack the resources to cope with inconsistent international requirements on their own.

CONCLUSION

Since the 19th Century America has been the guiding beacon of invention for the world. Thomas Edison's light bulb was a tangible symbol of that beacon, and since his day, millions of other American inventions have followed in his path. *Patents are the legal construct that breathe economic life into those inventions by giving their inventors a property interest in them.* The resulting economic incentive helps inventors spend their time, energy and money in the difficult task of wresting secrets from nature and harnessing them into new technology. America, with its patent sys-

tem, has been unchallenged as the invention capital of the world, and we have benefited enormously from this legacy.

As we enter the 21st Century, our traditional economy is beset by many challenges. International competitors such as China have already learned how to manufacture goods at low cost, and are becoming more technologically sophisticated with each passing day. As it stands, it is becoming ever rarer for an American company that "makes" products to actually do the manufacturing. Instead they design products that are built by others, often outsourced overseas. What is the difference between that, and an inventor who licenses his patents? It seems to me to be very poor timing to disadvantage small inventors in favor of large product companies, right at the stage when the real product building is moving overseas. The future of America is more strongly tied to invention than at any time in our past. We must support our inventors, including those that are in universities and small businesses, and plucky individuals working on their own.

The barriers to entry around the world are collapsing. Tom Friedman, a columnist for the New York Times, and a close observer of globalization likes to say that the world is becoming flat. If America wants to remain competitive, we must play to our strengths and remain the world's leading innovators and inventors. The patent system is the bedrock on which this is founded. I want to thank the Subcommittee for their work to keep the patent system, and by extension America, competitive in this vital area.

Appendix 1 – News Article

Princeton Alumni Weekly

April 6, 2005: Perspective

The magic of invention
Lessons on creativity from the world of aviation, Teflon, and Velcro

http://www.princeton.edu/~paw/archive_new/PAW04-05/12-0406/perspective.html

By Nathan P. Myhrvold *83

Nathan P. Myhrvold *83, former chief technology officer at Microsoft and founder of Intellectual Ventures, a company that nurtures invention, received the 2005 James Madison Medal on Alumni Day, Feb. 26. This essay is adapted from the lecture he gave that day in Richardson Auditorium.

Invention is the origin of all technology: Everything new started as a spark in someone's head. Without that breakthrough idea — without knowing how something can be done — you are at a fundamental disadvantage. After you know something, it often seems obvious; you say, "God, why didn't I think of that?" After you have the invention, you can apply lots of cleverness to making something work, but up front you need to have that invention. But, ironically, the world does not focus much effort on invention. In fact, invention is a sideline or a hobby for virtually everyone who practices it.

Academic research is wonderful, but academics aren't supposed to invent — they're supposed to learn new things about the world; they're supposed to expand mankind's knowledge. You can be a fantastic researcher without ever inventing something. There are great academics who invent, but they do it on the side. The same thing, ironically, is true of engineers. Most engineers are paid to build something. If you said, "Hey, you can build your product without actually doing a new invention," most engineering managers would say, "Great! There is going to be no risk. I hate when we have to solve a problem no one has solved before!" So while engineers can be great inventors, very few people are motivated to do it full time.

The world doesn't support invention very well. There is a systematic set of constraints: What is the next product version? What suits my research? What can I get my graduate student to do? Most of all: What can I get funded for? The great debate in design is whether form follows function. But in much of life, form follows funding. If you can't get funded to invent, if people won't take a chance, how are you going to get there? As a result, a huge amount of invention is done sub rosa — some of it by academics who really have a grant to do something else. Very few companies support really radical things — because if it is really radical, almost by definition it is not somebody's business to do up front.

The world is focused very much on what you do after you have the idea. If you go to a venture capitalist on Sand Hill Road in Menlo Park, Calif., and say, "You know, I am sure I am going to have a good idea!" the meeting ends right there. I like to think that if you really focus on invention we could have a whole lot more, and a whole lot better.

But what are the inspirations for invention? Where does invention come from? One of the most powerful ideas is to take inspiration from the natural world — to see something that nature has invented and use that as an inspiration directly for human invention. It is a great idea — but it rarely happens. There is one terrific example: Velcro. In 1948, Swiss biologist George de Mestral got some cockleburs stuck in his sock. Many of us have had that happen. But George was a little more curious than most of us about how these cockleburs stuck to his socks. He looked at one under a microscope, and saw lots and lots of little hooks. The hooks engage the fibers; originally, they evolved to engage fibers in an animal's hide to catch a ride. So de Mestral said, "I can make hooks!" and came up with the idea of Velcro.

The other classic example is flying. Mankind always has been fascinated with the graceful way birds soar. Early in the history of aviation, birds provided direct, natural inspiration. The primary proponent was the German inventor Otto Lilienthal, who built wonderful, birdlike gliders in Germany. But it turns out that acting like a bird isn't a good way to make a glider, and Otto flew and flew until he crashed. In 1894, a bicycle mechanic, Wilbur Wright, read about this, and he and his brother set out deliberately to invent the airplane. They took a very different approach. They weren't interested in birds at all — they built the first practical wind tunnel. It was by taking an approach that was utterly unlike a bird that they had some success.

The interesting thing is how deliberate the Wrights were. In 1899, they wrote to the Smithsonian Institution — that was back when the Smithsonian took requests — and said, "We would like all of the literature you have on human or artificial flight." Someone at the Smithsonian boxed up all these papers and sent them off. And so Orville and Wilbur Wright said, "OK, let's roll up our sleeves and learn how to fly." It wasn't based on birds, but on a systematic approach of saying, "Damn it; there has got to be a way to achieve this!" It took them four years. I think that it is really remarkable when you consider that after four years of seriously working at it — on something that people had speculated about since Leonardo da Vinci's time — these guys invented the airplane.

Most great inventions actually come out of something like the Wrights' approach. Someone gets a crazy idea and, of course, up front it is ludicrous. The more important the idea, the more ludicrous it has to be when you set out. I used to say at Microsoft Research that we wanted to hire researchers who were "narrowly insane": insane, because they believed they could solve a problem no one else in the world could solve; narrowly, because you wanted them to be pretty sensible in other ways. This kind of dedicated approach to invention is something I think the world needs to support a lot more.

There is another big theory of invention: the "happy accident" theory, in which someone can come up with an interesting observation through a bit of serendipity. Roy Plunkett,

who invented Teflon, had been doing an experiment that involved putting some fluorine gas and other things into a tank. He opened the stop cap to the tank, and nothing came out. The tank was heavy, he shook it, and eventually he took a hacksaw and sawed it apart, and discovered that there was this waxy white substance in it. It is a classic example of serendipity. It is also a classic example of how not to manage invention. Immediately after this, Plunkett was transferred and was never allowed to work on Teflon again at DuPont.

Happy accidents like Teflon do occur. But very few great inventions are accidental — and even in those that are, the great thing isn't the accident itself. A whole lot of people could have made Roy Plunkett's discovery and just thrown the whole thing out. The really great inventions that come from serendipity are the accidents waiting to happen. There is a saying: Luck favors the prepared mind. First you have to notice this thing, and then you have to be prepared to develop it. And you have to have the right support.

From a technological perspective, this is the ideal time to be an inventor. We have greater connectivity than we have ever had before, greater access to information and knowledge. The world is a much smaller place now that the Internet can allow us to connect with each other. That's a terrific stimulus. And the pace of invention has never been faster.

All of these things lead me to believe that the 21st century is going to be an era of incredible and dynamic invention. It's also a time, frankly, when we have to do it. At the turn of the last century, about half of our workforce was on the farm. By the 1960s it had dwindled to about 6 percent, and today, it's less than 3 percent. American farms are the most efficient in the world, but agriculture as a major part of the workforce has come and gone. So has manufacturing: It was just getting going in 1900 and peaked at about a third of the economy in the 1950s; today it is about 10 percent. Most companies in America now do a lot of the design, but a huge amount of what they do is built overseas. If we don't learn to invent, if we don't foster invention and innovation, it is not clear what we are going to do for a living.

Invention is the source of it all, yet it is strangely neglected. Enough of it happens, and happens randomly, that it keeps us busy. But if you focus on fostering it, it can really be done deliberately. There are people who disagree with this. Maybe you can't always set out and succeed like the Wright brothers did. After all, there probably were a lot of guys in 1899 who set out to invent something — but we only celebrate the people who got there.

But you sure can kill invention. Creativity absolutely can be strangled. It can be squelched; it can be underfunded. I think it is incumbent upon us to continue to push, in education and in business, to support it. The economies of the 21st century are going to be driven by the magic of invention.

Mr. SMITH. Thank you, Dr. Myhrvold.
Mr. Bartholomew.

TESTIMONY OF DARIN BARTHOLOMEW, SENIOR ATTORNEY, PATENT DEPARTMENT, JOHN DEERE & COMPANY, ON BEHALF OF THE FINANCIAL SERVICES ROUNDTABLE

Mr. BARTHOLOMEW. Thank you, Chairman Smith, Ranking Member Berman, and Members of the Subcommittee. My name is Darin Bartholomew. I am senior counsel for Deere & Company, where I focus on intellectual property and technology matters. I am pleased to testify today on behalf of John Deere Credit, the Financial Services Roundtable, and BITS.

The Financial Services Roundtable and BITS are financial services trade associations that represent some of the largest financial institutions in the country, including banks, broker-dealers, and other financial institutions. John Deere Credit is one of the largest equipment finance companies in the United States and is proud to be a member of the Financial Services Roundtable. We agree with many of the concepts which you include in the Committee Print and we appreciate the opportunity to provide you and other Members of the Committee with comments.

Today, over 800,000 applications are pending in the PTO and examiners are unable to spend enough time to provide a meaningful examination on complex applications. This is particularly true in the area of business method and financial services patents. After the landmark decision in State Street Bank & Trust Company in 1998, the number of pending patent applications that involve financial services and business methods have surged greatly. Because it typically takes more than 3 years to get allowance of these applications, we are faced with an avalanche of increased litigation risks for the financial services industry.

There are steps that Congress can take to provide protection against frivolous claims without impairing the important protections afforded by intellectual property rights. The main areas are creating an opposition proceeding, modifying the standard for injunctive relief, improving the prior-user rights defense, clarifying the damage rules, and promoting collaborative research.

The Committee Print on opposition proceedings does not include a window for initiation of an opposition proceeding upon the threat of patent infringement. However, we believe that this is essential to improve the quality of patents issued in the U.S. Organizations will not likely expend the resources necessary to monitor patents in a 9-month post-grant window. There is no tangible economic return for challenging patents unless there is a threatened infringement or requirement to license the application.

We believe that the 4-month window for launching an opposition after a threat of patent infringement would foster a more detailed scrutiny of patents than ordinarily occurs during a typical examination in which an examiner expends about 25 hours or less. This would create an efficient two-level examination regime within the U.S. for patents that are asserted. Patents that are asserted represent less than 2 percent of issued patents, approximately 2,500 patents a year. That would be a low administrative burden on the PTO to conduct an opposition proceeding for patents prior to their

assertion. In the Committee Print, secrecy of the opposer was one of the topics that is necessary to prevent retaliatory oppositions or opposition wars between competitors. We felt that the preponderance of the evidence standard proposed would provide an incentive to use opposition proceedings instead of filing a lawsuit initially.

Turning to the area of injunctive relief, in the U.K. injunctive relief is permitted anytime after expiration of 3 years from the date of the grant of the patent. This would provide a strong incentive for actually using inventive ideas instead of letting them sit on the shelf, and inventors would be allowed to license to others to achieve and satisfy the working requirements, which would meet the requirements of small entities.

With respect to business method patents, business method patents have proved difficult to define in practice and are not defined anywhere in the Patent Act. That's why we favor the Committee Print that would expand the prior-right user defense to all methods and to apparatus and systems. In addition, we feel that the defense should be extended to cover other matters so that we can achieve a standard in which the preponderance of evidence is used to invalidate business method patents.

In clarifying the damage rules, we agree with the Committee Print, but we have some modifications to refine language. These modifications involve clarifying the level of knowledge that it takes to prevent increased damage awards. We are in agreement with the codification of this decision, in that the absence of an opinion of counsel does not create an inference of willful infringement, in concurrence with the recent Knorr-Bremse decision.

With respect to the promotion of collaborative research, the current novelty provision in the law includes a public use provision as a novelty-barring event, and the U.K. and Europe both include language that prior art must be publicly available in their statutory provisions. Accordingly, we think that it is appropriate to include a reference to "public" or "publicly available" in the current statute. The presence of the word "public" supports the use of confidentiality agreements to conduct collaborative research between organizations, and the absence of "publicly available" would potentially lead to the creation of a class of secret prior art that is disfavored by the Federal Circuit and Congress.

We look forward to providing additional detail and working with the Subcommittee to refine these concepts.

Thank you.

[The prepared statement of Mr. Bartholomew follows:]

PREPARED STATEMENT OF DARIN BARTHOLOMEW

TESTIMONY of
Mr. Darin Bartholomew
Senior Counsel, Deere and Company

"Patent Quality Improvement"

BEFORE the

House Judiciary Committee Subcommittee on Courts, the Internet, and Intellectual Property

2141 Rayburn House Office Building
April 28, 2005
12:00 p.m.

Introduction

Chairman Smith, Ranking Member Berman and members of the Subcommittee, my name is Darin Bartholomew. I am senior counsel for Deere & Company where I focus on intellectual property and technology matters. I am pleased to testify today on behalf of John Deere Credit and The Financial Services Roundtable and BITS, which are affiliated financial services trade associations.

John Deere Credit is one of the largest equipment finance companies in the United States, with more than 1.8 million accounts and a managed asset portfolio of nearly $16 billion. It provides retail, wholesale and lease financing for agricultural, construction and forestry, commercial and consumer equipment (including lawn and grounds care) and revolving credit for agricultural inputs and services. John Deere Credit also provides financing in Argentina, Australia, Brazil, Canada, Finland, France, Germany, Italy, Luxembourg, Spain, and the United Kingdom.

The Financial Services Roundtable (www.fsround.org) represents 100 of the largest diversified financial services companies providing banking, insurance, and investment products and services to American businesses and consumers. Member companies participate through their chief executive officer and other senior executives nominated by the CEO. Roundtable member companies account directly for over one million jobs.

BITS (www.bitsinfo.org) was created in 1996 to foster the growth and development of electronic financial services and e-commerce for the benefit of financial institutions and their customers. BITS provides intellectual capital and addresses emerging issues where financial services, technology and commerce intersect. BITS's Board of Directors is made up of the Chairmen and CEOs of twenty of the largest U.S. financial services companies, as well as representatives of the American Bankers Association and the Independent Community Bankers of America.

I am pleased to testify as a member of The Roundtable's Patent and Intellectual Property Working Group. John Deere Credit, as well as its parent, Deere and Company, is intensely interested in patent quality issues at the USPTO. We are grateful that you have begun the discussion of these matters with your comprehensive Committee Print. We agree with many of the concepts which you included in the Committee Print and we appreciate the opportunity to provide you and other members of the Committee with comments.

Today, over 800,000 applications[1] are pending in the PTO and Examiners are unable to spend enough time to provide a meaningful examination on complex applications.[2] Regardless of which factors contribute to a lack of patent quality, businesses of all shapes and sizes, including banks, broker-dealers, insurers and finance companies are threatened by a large and growing number of frivolous claims of patent infringement. Currently pending claims of infringement are a serious problem, but they are only the tip of the iceberg because of the lag in allowance of patent applications related to business methods and financial services. After the landmark decision in *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), the number of pending patent applications that involve financial services have surged generally.[3] Because it typically takes more than three years to procure allowance of applications for business methods (e.g., Class 705),[4] the risk of increased litigation for the financial services industry is now present. If not addressed by appropriate legislation, the current trend will lead to a greater number of frivolous claims filed against financial firms in coming years.

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[1] U.S. PATENT AND TRADEMARK OFFICE, PERFORMANCE AND ACCOUNTABILITY REPORT FISCAL YEAR 2004, *available at* www.uspto.gov/web/offices/com/annual/2004/060405_table5.html (last visited April 27, 2005).

[2] FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, A REPORT BY THE FEDERAL TRADE COMMISSION, October 2003, at 5.

[3] See, e.g., STEPHEN A. MERRILL, RICHARD C. LEVIN, AND MARK B. MYERS, NATIONAL RESEARCH COUNCIL, A PATENT SYSTEM FOR THE 21ST CENTURY, 2004 at 86 (prepublication copy).

[4] *Id.* at 90.

There are steps that Congress can and should take to provide financial firms and other businesses with additional safeguards against these frivolous claims, without impairing the important protections afforded to intellectual property under the patent law. We recommend five initial measures, which are discussed below:

- Create an opposition proceeding;
- Modify the standard for injunctive relief;
- Improve the prior user rights defense;
- Clarify the damages rules; and
- Promote collaborative research.

We will now provide you with some additional detail regarding each of these measures.

Create an Opposition Proceeding

The USPTO proposed a post-grant review of patent claims in their 21st Century Strategic Plan that was released in 2002. We strongly support establishment of an opposition proceeding and appreciate your inclusion of the concept in the Committee Print. We recommend that the opposition procedure allow the public to petition the USPTO to cancel one or more claims in a patent within 12 months of issuance (a timeframe supported by the Administration) under section 323. The counterpart U.K. opposition law provides for an opposition proceeding within two years after the date of grant,[5] but the European Patent Convention opposition period is only 9 months.[6] We respectfully suggest the creation of a reasonably moderate time frame of 12 months by changing the language of section 323 from "9 months" to "12 months" in the Committee Print.

[5] Section 72(2)(b) of the U.K. Patents Act of 2004.
[6] EPC Art. 99.

Further, we recommend allowing anyone who is threatened with a patent infringement action to file a request for an opposition proceeding within four months after receiving notice of the patent infringement action. Without the four month window for initiation of an opposition proceeding upon a threat of patent infringement, the opposition proceeding would be seldom used. Organizations would not likely expend the resources necessary to monitor the patents of their competitors or the resources necessary to invalidate a patent in an opposition proceeding without any tangible economic return. However, an infringement action provides a sufficient economic incentive to use an opposition proceeding to avoid paying infringement damages for a questionable patent or a patent of suspect validity. Moreover, the 4 month window for launching an opposition would foster a more detailed scrutiny of patents than ordinarily occurs during the typical 25 hours or less of examination at the PTO.[7]

Under the proposed opposition procedure, the patentability of issued claims would be filed with the Director and subsequently reviewed by Administrative Patent Judges of the Board of Appeals of the USPTO. In section 321(a) after "opposition" (first occurrence) for clarification, we suggest inserting "with the Director in United States Patent and Trademark Office." In section 325, we suggest deleting "The determination by the Director to dismiss may not be appealed" so that the Patent Office and Director are subject to the checks and balances of the judiciary.

Maintaining the secrecy of the identity of the opposer is important to discourage retaliatory action between competitors, which might discourage using the opposition proceeding in the first place for fear of triggering an extensive opposition war over broad patent portfolios of competitors. The U.K. law also

[7] FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, A REPORT BY THE FEDERAL TRADE COMMISSION, October 2003, at 5.

supports secrecy of the opposing party in opposition proceedings.[8] Accordingly, in section 322, we suggest deleting "or to any person upon showing of good cause" because this intended exception represents an abyss that would swallow the entire rule on maintaining secrecy of the opposing party.

Section 324 of the Committee Print provides that the opposition proceeding may be based on an extensive scope of validity matters, similar to the standards used in Europe and the U.K.[9] We agree with the broad scope of the opposition proceeding in the Committee Print because it provides a readily available, reasonably prompt and cost effective way to determine patentability as a follow up to initial examination by the PTO without imposing unreasonable burdens on patentees. The opposition procedure would enable companies to manage the risk of claims against them based on bad or suspect patents, without incurring the high cost of litigation or facing the need to settle to avoid that cost.

Under Section 338 of the Committee Print, the opposer can drop out or settle with the patent owner, where the Director or Board has actual knowledge that one or more claims are invalid, but fails to issue an opinion. Accordingly, the existing language should afford the Director or Board the opportunity to issue an opinion in the public interest in such a case, regardless of whether the opposer drops out or settles with the patent owner. Accordingly, in section 338(a), after "filed" (first occurrence), we suggest you insert "or unless the Director decides in its discretion to issue a written decision under 331 that invalidates one or more claims of the applicable patent." Similarly, any opposer that remains in the opposition proceeding, or any opposer in a separate proceeding under section 325(c), should be given an opportunity to add any ground of invalidity raised by an opposer whose request to terminate has been granted by adding appropriate language to the Committee Print.

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[8] See, e.g., *Sanders Associates*, BL 0/89/81.

[9] See, e.g., Section 72(1)(b) of the U.K. Patents Act of 2004.

Estoppel issues have plagued inter partes reexamination proceedings and discouraged their use. After any appeal rights[10] are exhausted, a third party re-examination requestor is generally precluded from later challenging the validity of claims that survive inter partes reexamination on any ground that was raised or could have been raised during the inter partes reexamination.[11] Therefore, we recommend narrowly tailoring the language of the estoppel provision of section 336 to encourage use of the opposition proceedings. For instance, we suggest amending section 336(a)(1) as follows: after "law" delete the language to the period and replace with "where an identical issue was actually raised and decided in the opposition proceeding, and necessary to the determination of that issue of invalidity." Further, we recommend modifying section 336(a)(2) by adding "raised and" after "actually" and "of an issue of invalidity" after "final determination."

Modify the Standard for Injunctive Relief

Currently, if the patent owner clearly shows that a patent is valid and infringed, the patent owner is entitled to a rebuttable presumption of irreparable harm,[12] which favors the granting of injunctive relief. In many countries, including Canada and most European countries, injunctive relief is not available for paper patents that have not been worked. That is, if the owner of a patent does not use the patent within a specified period of time, the owner may lose the ability to obtain injunctive relief. For example, in the U.K. a party may apply for a compulsory license if the patentee fails to work the patent at any time after the expiration of three years from the date of the grant of the patent and if relevant

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[10] 35 U.S.C. 134(c)(2004) relates to appeals to the Board of Appeals, whereas 35 U.S.C. 315(c)(2004) covers appeals to the Federal Circuit.
[11] 35 U.S.C. 315(c)(2004).
[12] *Jack Guttman, Inc. v. Kopycake Enters, Inc.*, 302 F. 3d 1352, 1356 (Fed. Cir. 2002).

grounds are satisfied.[13] The relevant grounds deal with whether or not the demand for a patented product is met on reasonable terms,[14] among other things.

Rather than adopting a complex compulsory license provision, we support the general language of the Committee Print, where a court grants an injunction on a patent only if the patentee is likely to suffer immediate and irreparable harm that cannot be remedied by the payment of money damages alone. If an inventor can demonstrate a likelihood of irreparable harm and the patentee or its licensee have worked the invention in the U.S. within a reasonable time (e.g., 1 to 3 years) after the grant of the application, injunctive relief ought to be available. Accordingly, we suggest replacing the language of proposed Section 283(b), "including the extent to which the patentee makes use of the invention" to "including the extent to which the patentee works the invention within a reasonable time after the grant of the patent." In this case, "worked" would mean "making, using, selling, or having made the subject matter of the claimed invention on a material commercial basis by the patent owner or its licensee."

Improve the Prior User Rights Defense

The prior user rights defense under 35 U.S.C. 273 is an important protection for financial institutions especially due to the recent growth in patent litigation. However, in its current form, the prior user rights defense is merely limited to "business methods." Business methods have proved difficult to define in practice and are not defined anywhere in the Patent Act. Accordingly, a patent owner of a business method patent may characterize its business method as a system or apparatus to circumvent the application of the prior user defense. For the this reason, the prior user defense should be modified to apply equally to any methods, products or services covered by a patent, as proposed in the Committee

[13] Section 48(1), U.K. Patents Act of 2004.
[14] Section 48(1)(a), U.K. Patents Act of 2004; See, e.g., *Swansea Imports Limited v. Carver Technology Limited*, BL 0/170/04.

Print. Further, we suggest that any bill strike the automatic provision of attorney's fees.

Another problem with the prior use defense is the high level of proof required to successfully assert the prior user defense. Currently, in the Committee Print the prior user defense requires "clear and convincing evidence." Although "clear and convincing evidence" is generally appropriate where patent invalidity is invoked as a defense[15], here under the prior use defense the patent owner's patent is not invalidated and may be enforced against third parties. The limited applicability of the defense to circumstances of the prior use and the absence of patent invalidity supports changing the language of former Section 273(b)(4) from "clear and convincing" to "preponderance of the evidence."

Clarify the Damages Rules

The present patent law is subject to abuse by patent holders who go fishing for infringers, or worse, to coerce law-abiding companies to accept large liscensing fees. By simply sending a letter, at the cost of nothing more than a 37-cent stamp, a patent holder can set in motion a very costly process for the alleged infringer: hence the term "37-cent notice." The recipient of the letter has to undertake an investigation, incurring the cost of personnel time and legal counsel, both of which can be substantial. Failure to conduct the necessary due diligence could later subject the alleged infringer to treble damages. The accusing patent holder incurs no risk or cost, other than the cost of a stamp.

The patent law should be modified to provide that enhanced patent infringement damages may not be awarded: (1) on the basis of the mere knowledge of a patent or its contents by the defendant prior to suit, unless the knowledge meets specifically enumerated criteria that are sufficient to give notice of a genuine issue of potential infringement to the defendant, or (2) for any infringement occurring prior to the defendant's receipt of written notice from the

[15] *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 433 (Fed. Cir. 1986).

plaintiff of a charge of infringement, which identifies the specific patent, claims, and alleged infringing products or services at issue and which is sufficient to give the defendant an objectively reasonable apprehension of suit on the patent. Notwithstanding those limits, we believe that a patent infringer should be subject to payment of enhanced damages if: (a) the infringer deliberately copied the patented subject matter; or (b) the patent was asserted against the infringer in a previous U.S. judicial proceeding, and the subsequent infringement is not more than colorably different from the conduct asserted to be infringing in the previous proceeding, as proposed in the Committee Print. Consistent with the above comments, in proposed section 284(4)(d)(1), we respectfully suggest modifying the last sentence as follows: "Increased damages may not be awarded based merely upon the knowledge of a patent or its contents by the defendant prior to suit, where such knowledge does not comply with the following paragraph (Section 284(4)(d)(2))."

We appreciate the intention explicit in the discussion draft to limit the award of treble damages for infringement. Certainly this will cut down on frivolous notices and the lawsuits that follow.

Promote and Protect Collaborative Research

We generally support the refinements to the novelty provision (Section 102) set forth in the Committee Print. In general, the proposed novelty provision is an attempt to align U.S. novelty standards with international patent standards. Although the present language of Section 102 in the Committee Print implies that "known" means "known to the public" and that "accessible" means "accessible to the public", there is a risk that a judge might interpret the prior art merely to mean that which is accessible to one of ordinary skill in the art (traditionally an enablement requirement), regardless of whether is available to the public or not. Accordingly, we suggest tailoring the language of the Committee Print to eliminate the possibility of the judicial creation of secret prior art that might be

damaging to collaboration between parties. "Secret prior art .. is not favored for reasons for public policy," except for 102(e) prior art.[16]

Under section 2(2) of the U.K. Patents Act of 2004, "The state of the art in the case of an invention shall be taken to comprise all matter .. which has at any time before the priority date of that invention been made available to the public .. by written or oral description, by use or in any other way." Under Article 54(2) of the EPC, "The state of the art shall be held to comprise everything made available to the public by means of a written description or oral description, by use, or in any other way, before the date of filing the European patent application." The clear reference to "available to the public" is extremely significant in that it supports the ability of organizations in Europe to protect against novelty-destruction by entering into confidentiality agreements incidental to research and development activities. For example, in Europe a secret sale of an invention (e.g., a prototype) that is subject to a non-disclosure agreement is simply not regarded as prior art.[17]

In contrast, under certain judicial interpretations of current U.S. law, if company A contracts or collaborates with company B for the development of a prototype, design, or preliminary product or licenses the invention; an infringer may argue that the transaction qualifies as an invalidating secret offer for sale or sale.[18] Although the patent owner may ultimately prevail on technical arguments under a vague totality of circumstances test, the presence of a binding air-tight confidentiality agreement is not decisive of the outcome under the totality of the circumstances test.[19] Moreover, additional legal services may be required to successfully defend the patent validity.

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[16] *Kimberly-Clark v. Johnson & Johnson*, 745 F.2d 1437, 1446 (Fed. Cir. 1984).
[17] See, e.g., 1992 O.J.E.P.O 646, 652.
[18] *M&R Marking Systems, Inc. v. Top Stamp, Inc.*, 926 F. Supp. 466, 470-471 (D. N.J. 1996); *In Re Kollar*, 286 F.3d 1326, 1334 (Fed. Cir. 2002).
[19] The use of a confidentiality agreement or other obligation of confidentiality is merely a factor that favors the finding of experimental use and prevents invalidation under the statutory bar. See, e.g., *Netscape Communications Corporation v. Konrad*, 295 F. 3d 1315 (Fed. Cir. 2002).

For the foregoing reasons we recommend the following changes to the novelty provision in the Committee Print: (1) in Section 102(1)(a) and 102(a)(1)(B), add the words "to the public" after "known"; (2) in section 102(c) replace "Accessibility" with "Availability"; (3) in section 102(c)(1) and 102(c)(2) replace "accessible" (all occurrences) with "available to the public"; (4) in section 11(c)(2), "Applicability, Transitional Provisions," replace "accessible to persons of ordinary skill in the art" with "available to the public". The above changes to the Committee Print will allow organizations to contractually protect against unintentional invalidity of patents by executing a binding non-disclosure agreement with collaborating organizations.

Conclusion

Both The Financial Services Roundtable and BITS are strong believers in the U.S. patent process as fundamental to a healthy U.S. economy and robust free enterprise system, and strong believers in the process you have started. With increases in pending patent applications and claims of infringement, there is a need for Congressional debate and frank discussion with members of the financial services industry and the patent community at large. Given the importance of the patent process, the USPTO should be fully funded without fee diversion and given adequate resources to perform its duties. The key issues, however, are the ones addressed in the proposal you have put forward. It is not enough for the USPTO to turn out patents in greater quantity if those patents are not of the highest quality. I know that Director Dudas shares this view and we appreciate his dedication to patent quality issues. Current efforts to craft legislation are to be commended, Concepts such as opposition proceedings and reexamination improvements are vital to the viability of the inventors those who constitute a market for their inventions.

Because of increases in frivolous claims of patent infringement, we encourage you to continue your focus on appropriate defenses and other tools for litigation risk management, especially efforts to curb the use of injunctive relief..

We look forward to participating further as you develop and move legislation to improve of patent laws.

Mr. SMITH. Thank you, Mr. Bartholomew.

Director Dudas, in Dr. Myhrvold's written testimony, he said his number one concern was patent quality, specifically the PTO. And President Levin in his written testimony mentioned a couple of things, that the number of patent examiners was not keeping pace with the workload, that the U.S. seemed to be approving patents at a higher percentage than other countries, and he was concerned about the increasing dilution of the nonobvious standard—all of which might be taken to point to weaknesses in the Patent and Trademark Office.

In your statement a few minutes ago, you mentioned all the reforms that you were undertaking or planned to undertake. Do you really think you have the resources you need to accomplish the goals, and if not, how do you propose getting those resources?

Mr. DUDAS. Thank you for that question. We also believe that patent quality is by far the number one most important goal. We also recognize that our office has broken records in the number of applications we've received at the USPTO for each of the last 20 years. We've recognized that the number of examiners we've hired has not kept pace with that number of applications.

One of the most important things we can do is, under the strategic plan we put together 37 initiatives, and we basically looked at our processes in a brand-new way. We looked at quality from top-to-bottom. We used to measure quality in terms of the very end of the process: should this patent have issued or shouldn't this patent have issued. We now look at the process in a broken-down manner. We have better ability to train, we have better ability to find out specifically, down to the art unit, down to the examiner, down to the director level what issues we have with quality.

The issue—the question you have about resources, we have a short-term solution in that the fees that passed will help us hire a good number of examiners over the next number of years. We'll always need—I can say that in the near future we will always, always need examiners to examine patent applications. But we need to find something more than just hiring additional people because we have found that through the 1990's there are times when you simply cannot keep up with the demand. You can't find the number of people. I don't think we're at that place right now, but I do think we have to find other ways.

One of the things that we had proposed is looking at potential ways of competitively sourcing tasks. Other ways go directly to the heart of what I mentioned earlier about application quality. Our system prides itself on giving vast flexibilities. We should continue to give flexibilities, but at a time when we need to consider resources, we might have to consider which flexibilities are necessary and which are simply beneficial or desirable.

Mr. SMITH. Okay. Let us know how we can help.

Mr. DUDAS. Absolutely.

Mr. SMITH. President Levin, I was going to go back to the nonobvious standard. How can we ensure that courts, if they are, don't continue to dilute the nonobvious standard; and is one solution perhaps changing the language in section 103 of the Patent Act, or is there a way to achieve the goal without changing the language? Or what would you recommend?

Mr. LEVIN. Our committee debated this question of changing 103 quite extensively, and the majority concluded that we need not do that. And we did not recommend it. There was a minority of the committee, however, who felt that some toughening of the statutory language would be useful, something like introducing explicit language about an inventive step, such as they have in Europe.

However, we really did converge on the idea that a post-grant review process would in many respects do the work of a stronger standard. Many of the weak patents that are out there are ultimately overturned by the courts applying the nonobviousness standard. But so many of them get through, particularly in these new areas of technology—genomics when it first came in, and business methods when they first started to get patented. And you have a period of years where the presumption is to grant the patent and there's not enough check. It takes years for the courts to check on the validity, but if you had a post-grant review process it would get checked much more quickly and the standards governing the PTO examiners would be clarified. That would be the most important way to improve patent quality.

Mr. SMITH. That would have the impact that you desire.

Mr. LEVIN. I think the desired impact. And I think Mr.—agrees with that.

Mr. SMITH. Okay, thanks. One more question, President Levin. I've read that the willful violation is charged in more than 90 percent of all patent suits. What changes do you think need to be made to reduce the number or make it harder to prove willful infringement?

Mr. LEVIN. It's just the standard practice, you know. The plaintiff charges willful infringement and the defendant counterclaims, you know, inequitable conduct. It happens in most cases. That's why we think both these documents need to be modified or abolished. The Committee's codification of making it unnecessary to rely on exculpatory opinions is helpful, but frankly, I think a majority of our committee believed that simply eliminating treble damages for willful infringement would be the right answer, which effectively eliminates the doctrine.

It's a subjective determination, ultimately, what is willfulness. And your—the draft bill actually introduces another area of subjectivity, I think inadvertently, by talking about this, you know, way out of a charge of willful infringement by saying that a defendant might have an informed good-faith belief that a court would hold a patent invalid. Well, how are you going to determine that? That's just ripe for asking for lots of discovery and lots of opinion and trying to determine what somebody thought at some prior time. This is just the sort of thing we're trying to avoid in eliminating best mode, in eliminating first to invent, in eliminating inequitable conduct.

Mr. SMITH. Okay, thank you. And without objection, I'm going to yield myself an additional minute, realizing I'm setting a precedent for other Members here as well.

Dr. Myhrvold, you do not want us to change the way injunctions are granted. In that case, what do we do about the shakedown lawsuits that seem to terrorize some people?

Mr. MYHRVOLD. Well, it's a very difficult issue. And of course it's always easier to criticize a concrete thing than to come up with something new, and that's why the committee has a hard task here. When I was at Microsoft, the nuisance patent lawsuits would come to the chief technology officer. So I handled plenty of those. I think we're one of the most popular, if that's the right term, defendants for that reason. So I have great sympathy with reducing nuisance lawsuits. I don't have a single magic formula, however, that says this is exactly how to do it, and I wish I did.

Mr. SMITH. Okay. Does anyone else have a solution for this type lawsuits that we're talking about?

[No response.]

Mr. SMITH. Good. Maybe it's up to us to decide. I don't know. Okay.

Yes, Mr. Bartholomew, do you have a——

Mr. BARTHOLOMEW. Yes. I think one of the things that we could do to accommodate the small entities in this case is to define the working, if you will, that occurs under that injunctive relief standard to allow small entities to license to others who make, sell, or use the inventions, and that it might also be possible to agree on some other type of exemption for small entities in the case of this requirement. The problem with giving an exemption to small entities is that some LLC and other small companies are set up expressly for the purpose of asserting patents against larger companies, and that would prove to be a difficult exception to get buy-off on.

Mr. SMITH. Okay, thank you, Mr. Bartholomew.

Mr. DUDAS. I'm sorry, I——

Mr. SMITH. Director Dudas, if you will briefly give us a comment.

Mr. DUDAS. Very briefly. I'm probably testifying more as a former staffer of this Subcommittee and Committee. But I would commend your attention to, if litigation is the problem, to look at litigation systems management reforms, et cetera—loser-pays rules types of things.

Mr. SMITH. Okay, that might be helpful. Thank you.

The gentleman from California, Mr. Berman, is recognized for his questions.

Mr. BERMAN. And litigation reform in an area that is Federal law would be very unique for the Judiciary Committee in the House. We like to just do litigation reform on the things that are in State courts. [Laughter.]

The injunction issue is very interesting. Dr. Myhrvold, I had a chance to sit through a withering attack by one of your employees on this portion of the bill. And perhaps—I have actually now read these two, the existing law and our provision, as opposed to just sort of dealing with this very conceptually, and it seems to me there is a middle ground here somewhere. There are two classic sort of positions. One is, a guy has the patent, no one else should be able to do anything with it unless it is with his permission. The other side of the coin is you hear stories of some little portion of a very expensive product for which there was a huge amount invested and a tremendous amount of expense, and it is a very small part of the final product. And apparently the way the law is interpreted, and I can see why given the way the existing law reads,

it is only about preventing violations of a right secured by a patent. Yes, the courts have discretion now, but the only factor they really look at is whether the injunction should issue to prevent the violation of any right secured by a patent—the exclusivity issue. It tilts on that side.

I look at the language of the Committee Print and it seems to tilt against really getting injunctions. You have to show irreparable injury and—isn't there some way to deal with this problem of essentially giving the holder of a patent a level of leverage that really isn't equitable or sensible or in the public interest and at the same time maintain some concept of exclusivity for the patent holder in normal situations? I mean, isn't there some way to bridge existing law and the Committee Print on this that can create a dynamic where this doesn't become an issue that bogs this bill down?

Mr. MYHRVOLD. You know, the tricky thing here is you're balancing two sets of rights, you know, the rights of the patent holder and the rights of everybody else, someone who's claimed to be an infringer. One of the ways our court system works is by balancing those rights. Today one form of this is that 97 percent of all patent lawsuits settle before trial. And they settle before trial because——

Mr. BERMAN. Because of a fear of an injunction.

Mr. MYHRVOLD. And so, in fact, the tricky thing is if you reduce the likelihood of injunctions, what you wind up doing potentially is doubling or tripling the number of patent lawsuits.

Mr. BERMAN. That is one way to look at it. Another way to look at it is you enhance the value that the settlement has some relationship to the damage, as opposed to the—I will be careful not to get too literal here—but to the extraordinary power that the guy who is likely to get the injunction has in negotiating a settlement.

Mr. MYHRVOLD. One comment I'd make, then, is that a lot of these issues are about war stories. You know, you've got the little-inventor war story—little guy is disadvantaged by the big company—and you have the big-company war story about the nuisance lawsuits. It would be very interesting to have a real statistical study and say, well, how often do these things come up? How often is it that a tiny part of a big product, as you said, does actually go all the way to trial and doesn't settle?

Mr. BERMAN. And it could be—but—well, but in the end, the language I see in section 283 on injunctions certainly doesn't take that situation into account. Which is why I think there is an interesting—including the summary—a vision of this in the Committee Print.

Anyway, I don't know, President Levin, if you have——

Mr. LEVIN. Well, our committee didn't look at this, but I think you're conceptually right. There would be a middle ground that referenced a balancing of the rights of both sides. This only talks about balance—it talks about balance, but it talks about—or principles of equity to prevent the violation of a right secured by a patent. If you want to go in between, you could talk about balancing the rights of the patent holder and the accused infringer.

Mr. BERMAN. Right. Let me try and get my additional minute.

Mr. SMITH. Without objection, the gentleman is recognized for an additional 2 minutes.

Mr. BERMAN. Oh. Great. Yes. Does this expand geometrically or mathematically? [Laughter.]

Mr. SMITH. It is not going to escalate more.

Mr. BERMAN. Let me turn to another issue. The publication—I am thinking now in terms of our Committee Print. I like the idea of publication after 18 months. I particularly like it because I would like to see, I think, some ability for third parties to provide prior art going in and obviously publication is essential to providing prior art. But that causes some problems. We have had that drill before.

The other issue, though, is first-to-file versus first-to-invent. I understand changing it to first-to-file in terms of harmonization, and there is a certain conceptual attractiveness in saying, hey, if you are going to invent and you want to be protected, go file it. But aren't you, when we do that, creating a huge advantage for the big guy who can quickly hire the lawyer and has him on staff and get the thing, and the small inventor is trying to raise the money with his new invention to put together the patent application and get it in? We are going to get opposition on both of these from certain folks. I am just wondering, isn't 18 months the more important principle to establish here? And both of them are harmonization issues, I guess, but—and aren't there some meritorious arguments against going to first-to-file?

Mr. LEVIN. Let me take the 18 months first. I think we know that the sky won't fall if we impose an 18-month requirement because we've already imposed it on anyone who wants to take a patent in another national jurisdiction. So all this bill would do and what our committee recommends is extend that to people who, by current law, can exempt themselves from that requirement by promising only to file in the United States. There's no logic behind that. And we know that it's workable to have publication at 18 months and for the very reasons you say—it gets the information out into the public domain and allows challenges for prior art and also informs the people working in related areas of technology as to what patent claims are ahead of it in the queue. So it's a good thing to change the 18-month requirement. It's not a full substitute for switching to a first-to-file regime.

Mr. BERMAN. No.

Mr. LEVIN. The advantages of a first-to-file regime, in addition to just the principle of harmonization, are the fact that you avoid all the costly determination when there are disputes about who was first. In one case, it's purely objective who got to the Office first; in the other, first-to-invent, what was in the mind of the inventor at what time—it takes a lot of discovery and a lot of sorting through the evidence. And here's the crux of it. There have been careful statistical studies of this phenomenon. And what we find is small inventors are not disadvantaged by the first-to-file. That is to say, in the case of disputes that are—where there are priority disputes, the first to file, according to Gerry Mossinghoff's work, wins something like 93 or 97 percent of the time. The exact number is in my testimony. And in fact, if anything, the conclusions of Former Commissioner Mossinghoff and of Mark Lemley, a lawyer at the University of California, Berkeley, are that the evidence suggests that the current situation actually slightly disadvantages

small inventors who don't have the capacity or resources to fight out the arguments about, you know, who was first in the expensive way that it has to be fought out today.

So first-to-file, in our view, would not favor the big guys. It would just be a simpler, more efficient way to resolve disputes about priority.

Mr. BERMAN. I agree.

Mr. SMITH. Thank you, Mr. Berman. The gentleman from Virginia, Mr. Goodlatte, is recognized for his questions.

Mr. GOODLATTE. Well, thank you, Mr. Chairman, and thank you for these continuing hearings on this legislation, which I think everybody here on the Committee that is here today is very, very interested in and we applaud you for your leadership on it. And I want to welcome all these panel members, particularly Secretary Dudas.

Mr. Secretary, I wonder if you could comment on whether or not a post-grant opposition proceeding would help ensure the quality of patents.

Mr. DUDAS. I think a post-grant opposition proceeding would go a great length to ensure quality of patent applications. What you hear today is people find that reexamination is too limited. It is too limited. Litigation is considered too costly, too lengthy, too uncertain. Post-grant opposition allows you to go before the Office. You have the expertise there. It's something that's been in our Strategic Plan for almost 3 years now and has been widely accepted in the studies that have been done and the private-sector industry groups as well. I think post-grant opposition is probably the most important element for increasing quality for the system as a whole.

Mr. GOODLATTE. Mr. Myhrvold mentions in his testimony the problems that patent backlogs cost for inventors. I am wondering if, again, you would comment on this. How would this post-grant opposition proposal impact patent pendency? How could Congress help minimize the effect that proceeding might have on patent pendency, if you are going to tell me that it could slow it down?

Mr. DUDAS. It wouldn't naturally slow it down. It could possibly slow down production because of the resources we put into that. The most important thing at that point, as we've said in our Strategic Plan all along, is for any new initiatives that we have in place, we will need to be able to have appropriate funding to go along with that. But there's not a natural policy reason why it would slow down pendency within the Office.

Mr. GOODLATTE. So you wouldn't predict that simply implementing that policy would have a resultant drag on the productivity of your Agency?

Mr. DUDAS. Not if it came with resources to fund it, that's correct.

Mr. LEVIN. May I add an observation?

Mr. GOODLATTE. Sure.

Mr. LEVIN. It might actually speed up pendency, because by clarifying standards in emerging areas of technology might make the examination process more efficient for patents behind in the queue.

Mr. GOODLATTE. Very good.

Dr. Myhrvold, you mentioned some criticisms of the bill in your testimony. How would the Committee Print help small businesses?

Mr. MYHRVOLD. Well, it—you know, there's a variety of things in the Committee Print that I think are helpful to any patent holder. I'm hard-pressed to think of any that help small business particularly, but that's okay.

Mr. GOODLATTE. No, if they are helped along with everybody else, that is fine, but how—which ideas in this Committee Print would you identify as helpful to small business?

Mr. MYHRVOLD. It's a little easier for me to identify the ones that would be hurtful, sir.

Mr. GOODLATTE. I know. That is why I want you to tell us what would be helpful.

Mr. MYHRVOLD. Well, you know, I've seen the studies that my colleague here referred to about first to file and so forth. It generates lots of heat and passion in people, but I think is actually probably better for folks to have it the way the Committee Print does. I think this inequitable conduct thing definitely needs to be reformed, and that's helpful to everyone. Best mode is another thing, where—all of these subjective areas, as this NRC committee found, only make it harmful for everybody. So I think all of those are potentially very, very good for every patent holder. I don't know of anything in the bill that specifically something that advantages small patent holders over anyone else. But patent quality does help everyone.

Mr. GOODLATTE. Anybody else want to address that?

[No response.]

Mr. GOODLATTE. Okay, I have another one for you, Dr. Myhrvold. How would the proposals in the Committee Print, or would the proposals in the Committee Print increase or decrease abuses in patent litigation?

Mr. MYHRVOLD. Well, I think the overall volume of litigation would go up if this injunction feature were implemented. And I'll explain briefly why. The first, as I previously said, 97 percent of the cases settle. They settle because the parties have a motive to settle. If in fact there's no injunction at the end, then at least for that fraction of cases where it seems unlikely, a large corporate litigant has every interest in the world to keep the litigation going. So if 97 percent goes to 94 percent, that doubles the number of suits. So it doesn't have to happen very often to have a big impact.

In addition, there's two big additional responsibilities heaped on the court here. The first is the determination of is it irreparable harm, is it not; who's commercializing, who isn't commercializing? The bill says, you know, "shall duly consider all evidence." Well, that means motions and discovery and testimony, and it's a lawsuit tacked onto a lawsuit.

The third area is actually the most concern to me because, if there is no injunction, that means the court must determine the license terms and business model for all future use. Today the court doesn't do that. That's another that's going to have an enormous amount of testimony, litigation, and expert witnesses associated with it.

Mr. GOODLATTE. Anybody else want to address that point? Mr. Bartholomew?

Mr. SMITH. The gentleman is recognized for an additional minute.

Mr. GOODLATTE. I thank the Chairman.

Mr. BARTHOLOMEW. The injunctive requirement as it was proposed in the Committee Print does not abolish the right to injunctive relief. And as we interpret it, it primarily applies to a permanent injunction rather than a preliminary injunction. First of all, the injunctive relief is definitely available where working occurs, that is, where the patentee makes use of his invention. And we would favor extending that to allowing the patentee, such as a small entity, to be able to—or any entity, for that matter, to be able to work the invention through licensing to others that may have manufacturing capacity or other expertise that the small entity does not have.

Further, in looking at the language of the Committee Print, it looks like that a totality of the circumstances test may apply to considering the working requirement. That is, the working requirement might be one factor in the overall determination on whether to grant or deny injunctive relief, but that other factors that relate to determining whether there is harm would also apply.

Thank you.

Mr. GOODLATTE. Thank you, Mr. Chairman.

Mr. SMITH. Thank you, Mr. Goodlatte.

The gentlewoman from California, Ms. Lofgren, is recognized for her questions.

Ms. LOFGREN. Thank you, Mr. Chairman. And thanks to all the panelists for your thoughtful testimony and also the more expansive written testimony.

This is, for me, a great process because we are hearing a series of knowledgeable people. And I think the Chairman has made clear, we have a working draft. It doesn't have anyone's name on it yet because we want to invite suggestions and end up with the best product that really supports innovation and is fair. So that is the spirit that I am going into this inquiry, and your comments help a great deal.

Dr. Levin, your comment regarding the reasonable belief issue, all of a sudden I realized I think you are right on that. That is just going to invite a lot more litigation. I personally think that is a very helpful observation.

Dr. Myhrvold, your comments and testimony, because it is somewhat at odds with the rest of the panelists, does draw attention. In your written testimony, on page 11, you talk and draw our attention to what you describe as a gaping loophole for software on 271(f). Can you expound on what your concern is there?

Mr. MYHRVOLD. Okay. Section 271(f) of the law covers what—basically; I'm going to simplify it because both I'm not a lawyer and we want to treat this at a high level. It covers infringement on exports. If you have a patent, you're owed a royalty, it's considered an infringement, you're owed a royalty on both sales in the U.S. and exports. 271(f) covers what happens—a definition of this export thing, broadly. And the Committee Print introduces a very short amendment. It says a component, under this term, shall be a tangible item, and it shall be combined with other components. Now, what that means is that any intangible thing is now not considered

an infringement for export under 271(f). Practically speaking, what this means is all export of all software products would not be covered.

So that means if you're a valid patent holder, you have a royalty agreement with a software company, you wouldn't get paid for all their exports, which for most software companies in the United States is more than half their income. Not just software. Actually, because it says "tangible item," anything involving Internet protocols or any other sort of tangible purely electronic commerce, or an invention that has as a piece of it—you know, an airplane navigation system, including the airplane, but if the software was downloaded across the Internet, then it wouldn't apply.

And so my issue here is we can't define the only valuable items as tangible.

Ms. LOFGREN. President Levin or other panelists, do you concur or do you disagree with that?

Mr. LEVIN. I really hadn't focused on this provision and it wasn't something we covered in our report, so I would leave it to others to determine.

Mr. DUDAS. This is something that we were looking at. I can't give you a firm position. I can tell you it's also something that's being reviewed in the courts and that's one of the things we're looking at.

Ms. LOFGREN. I wonder if it would be fair to ask each of you to take a look at it and share whatever thoughts you might have subsequent to this hearing. I don't know what I think about it. I just was interested by the testimony and wanted to pursue it.

On the whole issue of the permanent injunctions, Dr. Myhrvold, obviously you are talking about the small inventor, but a lot of the disputes aren't between the small guy and the big guy, they are between the big guy and the big guy. And some of what, in terms of—there is no way to really do a survey of what is happening in the 97 percent of litigation that has been settled, because it has been settled and oftentimes it is a confidential settlement. So it is very difficult. Ultimately, we are relying on anecdotes, which is not a good practice, but it is the only thing we can do because it is all we have.

So just as a matter of law and principle, how do you—if you were designing this, how would you allow a court to establish the equities where you have, for example, a product that has perhaps a multiplicity of patented materials owned by or licensed by a variety of individuals and corporations, challenged by someone who has a small component, who has the ability, really, to extort a huge amount of money for what is really a small part, versus all the other owners of intellectual property there. I mean, I am not saying there shouldn't be a remedy, but if—how would you—what tools would you give a court to draw—if you were God? [Laughter.]

Mr. SMITH. Without objection, the gentlewoman is recognized for an additional minute. Perhaps more.

Mr. MYHRVOLD. So I can be God, but only for an additional minute.

Ms. LOFGREN. Only for 60 seconds. So don't waste it.

Mr. MYHRVOLD. You know, it's a great question. I'm going to have to get back to you in detail. I think, you know, to—I think

actually statistical studies could be done, particularly because really what's important here aren't the cases that settle, it's the cases that actually go and injunctions are filed—how often does this actually occur. I think that data could be forthcoming. I don't personally have it.

It's a difficult issue. Today courts do have discretion and courts will often exercise it. And so the whole question here is do we know that the judiciary is abusing or not properly on those things or not.

Ms. LOFGREN. Well, it is not a matter of abuse but it is how you set the standard both in statute but also in the law as applied and interpreted by the judicial branch.

Mr. MYHRVOLD. You know, for example, I'd be really interested to find out how often does this case occur. You're absolutely right. A lot of patent disputes are one big company suing another big company and all their suppliers. So maybe this is a much smaller case, or much larger case, than we're talking about.

Ms. LOFGREN. Thank you, Mr. Chairman.

Mr. SMITH. Thank you, Ms. Lofgren.

The gentleman from Virginia, Mr. Boucher, is recognized for his questions.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman, and I want to commend you at the outset for calling the Committee's attention to a very clear need, and that is to improve patent quality through the passage of legislation. And I want to commend you for putting before the Committee a very constructive draft of a new law, which contains many features that I find to be attractive. And I am glad to hear our panelists today point to some of those very constructive features.

Mr. Berman and I have been for the last 4 years having discussions about approaches that we could take in order to improve patent quality. Four years ago, we drafted a bill, introduced it. It contains a number of the concepts that are now reflected in the bill introduced by Chairman Smith, or the bill circulated by Chairman Smith. There are a number of things that we looked at at that time that, however, are not reflected in this draft. Let me just point to one of those in particular and get your opinion about whether we are right about this, whether Mr. Berman and I were right in proposing this.

The overall goal here is to improve patent quality. That inevitably means we need to bring more pertinent information to the attention of the patent examiner and to the post-grant proceeding, to the Patent Office generally, so that mistakes can be corrected before the patent leaves the Office. One of the things that I think would really help to improve the quality of the initial patent exam would be a clear opportunity, with well-defined parameters, for third parties to make submissions of prior art that they happen to have within their possession. And Mr. Berman and I had recommended that.

Now, that clear procedure is not contained within the draft we are currently considering. So the first question I have is what is your opinion of having a clearly defined procedure that would encourage submissions of prior art by third parties? And if you have suggestions for the parameters of such a process, please share that with us also. Mr. Dudas?

Mr. DUDAS. Thank you. We do allow now at the Patent and Trademark Office up to 2 months after publication the submission of prior art, but with no relevancy statement. The distinction made is you can submit prior art, that's accepted. If you comment on the prior art, that's sent back or destroyed. There is a statutory prohibition currently in place that says we cannot have a pre-grant opposition procedure, so the question is, in order to avoid harassment or delay of the patent application, how do we get relevant art from the outside along those lines?

We are open to the suggestion of how we can improve that. We certainly believe that there should be a uniformity of any type of submission that there is there. We are currently looking at 2 months after 18 months—I'm sorry, it's published at 18 months, then there's 2 months to submit prior art—moving that time frame to bring in prior art. And then the question of what's the right balance of whether or not there can be any comment on that at all. That becomes more problematic, and we've traditionally opposed pre-grant both in the U.S. and elsewhere, where it looks like it can be—harass the applicant.

But a way of getting more prior art is something that we have now that we'd like to expand, and we also do it in more general ways through partnerships with the private sector.

Mr. BOUCHER. Well, I very much welcome your willingness to have a conversation about ways we might amplify that process to some extent.

Other comments on the submission of prior art? President Levin.

Mr. LEVIN. It seems to me a bit of a confession of failure if you don't allow the submission of prior art until publication and don't require publication until 18 months, and then are thinking about what would happen after that 2-month window. It's like saying there's no hope for ever getting pendency below 2 years. That's not the way the system should be working. That shouldn't be our aspiration. Wouldn't it be a lot better to speed up pendency, to actually beat the publication deadline and actually have the publication of the patent come when the patent issues, after 9 months or 6 months, and then let people intervene with their prior art in an opposition procedure?

So why think in a mindset that assumes there's a 3-year pendency? That's not the best system.

Mr. BOUCHER. But you do favor a clear provision that allows for the submission of prior art, perhaps amplifying the administrative process currently in practice at the Patent Office?

Mr. LEVIN. Well, I think it's more important to speed up pendency and introduce a post-grant review system, where of course——

Mr. BOUCHER. Well, we can do both, though. I mean, it is not a mutually exclusive arrangement.

Dr. Myhrvold, do you want to comment?

Mr. MYHRVOLD. Well, I very much support both what Commissioner Dudas and Dr. Levin said. I would love to have six- or 9-month pendencies. That would be fantastic for inventors. Maybe a little bit too much to hope for in the near term. I think that the current administrative——

Mr. SMITH. Without objection, the gentleman is recognized for an additional 2 minutes.

Mr. BOUCHER. Thank you.

Mr. MYHRVOLD. You know, I think that the existing procedures that the Patent Office has are good. By the way, I support publication of all applications. I think transparency in the process is very good, and this plays to that. And then, as Director Dudas said, it's a matter of balancing, you know, what the relevant time frames are. Obviously, if you have a 2-year time to submit prior art, that pushes pendency back out again.

Mr. BOUCHER. Okay. I understand your point. Thank you.

Let me tell you what my practical concern is about the automatic injunctions that follow today the finding of patent infringement, and that is that it simply enhances dramatically the leverage of the patent holder in order to negotiate what may be an extraordinarily favorable settlement from his perspective. Let me give you an example. Research In Motion, the maker of BlackBerries, which we all carry now, originally was confronted with a patent claim for $50 million. Once a finding of infringement was entered, settlements commenced, and the settlement turned out to be $450 million. And the incentive that Research In Motion had to pay that king's ransom, that shakedown, as Chairman Smith so well described the general circumstance, is that automatic injunction would have terminated the company's business. They would have had to stop selling BlackBerries in the United States.

And I just think that leverage is unjustified. I think it is too much. Now, the patent holder is going to get his damages no matter what. There is going to be a trial or a settlement on the question of damages. But why give the patent holder that extraordinary amount of leverage and a shakedown opportunity?

Comments? President Levin.

Mr. LEVIN. I think that there's a certain logic in that and perhaps—it's not something I've given a lot of thought to previously, but some more balanced phrasing, rather than going from presumptively there'll be an injunction to presumptively there won't be, finding some kind of balancing test as a way of changing the law would be a solution.

Mr. BOUCHER. But you agree the current structure is a little bit unbalanced in having that automatic——

Mr. LEVIN. I agree with the factual assertion you made, that it does give a lot of leverage to the patent holder.

Mr. BOUCHER. You are a careful witness, President Levin.

Mr. Dudas, do you want to comment?

Mr. DUDAS. I'd be happy to comment. I think it goes back a bit to what Congressman Berman had said earlier on the question of how are you viewing this. One of the challenges as intellectual property policymakers is convincing others that intellectual property is property. And the question is, "Is this property?" If you take a real property example, which we often do when we're in other countries, the person who has the beachfront property, who holds out when the shopping center wants to come in. Do we say the shopping center's got a great shopping center plan, we really think that they're going to go ahead and build and they'll pay you money damages? I think it's a question of, if that patent is intellectual property, is this really reducing property rights; and a question of

whether we're shifting market decisions to judges, is I think what some have said.

Mr. BOUCHER. I hear what you are saying. It is a kind of theoretical response to a practical problem, and I find it less than compelling. But I appreciate what you said anyway.

Mr. Dudas, with the Chairman's indulgence, I want to ask you one question on a subject that has not been raised today. Mr. Berman and I several years ago were quite concerned about the award of business method patents and the fact that we saw that as something of a runaway train. And there were some notable examples that I think most people, most observers really thought were inappropriate for patent awards. I mean, what comes to mind is DoubleClick's patent on the reverse auction. That wasn't exactly new. Reverse auctions have been known since about 5,000 years ago. I mean, it was not exactly novel. What was novel was that DoubleClick carried this out on the Internet for the first time.

So we inserted a provision which, frankly, I still find appealing, that says that if you are carrying out through a computer implementation something that is well-known in the physical world and is a commonly known practice, it is not novel, it is obvious, it is not patentable.

What do you think about that? Is that something we should do? It is not something that is in the draft we are now considering, but we think it is still an important principle.

Mr. DUDAS. I think it is something that we are considering and should consider. I think the biggest problem that we have with business methods patents or with new technologies is that it's new and that it's something that the Office will deal with. I'm one that hesitates to compare rejection rates with a signal of quality, but when you have new technology, you often have that come in. Business methods patents allowance rate is now 16 percent. I think in that area in particular, finding the new technology, finding the new art has largely addressed it. I think this is something that we should be considering.

Mr. BOUCHER. Well, this comes right to the point, though. Simply——

Mr. SMITH. Mr. Boucher, would you like another minute or would you like to submit written questions to Director Dudas?

Mr. BOUCHER. Well, Mr. Chairman, may I ask unanimous consent for one additional minute?

Mr. SMITH. Without objection, the gentleman is recognized for another minute.

Mr. BOUCHER. Thank you, Mr. Chairman.

Simply improving the quality of the information that comes to the patent examiner doesn't solve a problem when the standard, no matter what the quality of the information, permits the award of the patent. So very simply, do you have a standard now at the Patent Office that says that something carried out for the first time by computer implementation—in common parlance, carried out on the Internet—is not patentable if this is a known practice in the physical world?

Mr. DUDAS. I don't believe we have a standard that goes along those lines. I think——

Mr. BOUCHER. And so my question is shouldn't we have one. Just that simple.

Mr. DUDAS. And I—the answer—it's a simple question, I think the answer is probably more complex. If you carry something out in the private world and you manage to do it through software, software patents are——

Mr. SMITH. I see I still have about 30 seconds for Mr. Myhrvold. [Laughter.]

Mr. MYHRVOLD. The devil's in the details here. If you had a car that could drive itself, that's something that we can do in the real physical world, no software can do today. The day they do that, that's a breakthrough.

Mr. SMITH. Thank you, Mr. Boucher.

The gentleman from California, Mr. Schiff, is recognized for his questions.

Mr. SCHIFF. Thank you, Mr. Chairman.

President Levin, I wanted to follow up on one of the questions that my colleague Howard Berman asked you earlier, and preface it by saying that, you know, I am very proud as a Californian that the UC has led in patents for several years now. And Cal Tech, located in my district, is a proud Number Two. There has been some concern raised, I think, at the UC about the change, or proposed change, in going to the first-to-file from a first-to-invent and what impact that would have on universities that maybe don't have such a well-developed effort to race to the Patent Office, and have a different practice, by and large.

What impact do you think such a change would have on the universities? Is that a concern to you, given your background? How do you think it would change the behavior of universities? Should there be some kind of a carve-out for universities and their publications? What do you think the impact would be?

Mr. LEVIN. I would firmly oppose a carve-out for universities on these grounds. I think the impact would be of changing to first-to-file, is that we'd get a little more efficient in our own internal processing of patents. I mean, it's hardly an excuse that universities operate more slowly than the private sector. We shouldn't rely on that. And I know there are some colleagues within the university community who are advancing the view that you suggest, but I think for the most part they are the people who run our technology transfer offices. And we had a recent meeting of the presidents of the Association of American Universities, on the Committee on Intellectual Property, that was unanimous in supporting the NRC recommendations, including first-to-file. I think it's—you know, if we're inefficient at processing patents, we shouldn't be rewarded by the law. We ought to get better.

Mr. SCHIFF. Well, isn't that inefficiency due somewhat to the different nature of a university from a private firm that is in the business of——

Mr. LEVIN. We already have what is a very, I think, appropriate but also generous provision of the law which allows universities to file patents for inventions that were financed by Federal grants. That's worked extremely well. The reason that the University of California has done so well is because of the passage of the Bayh-Dole Act, and it's had, I think, massive salutary effects on our

economy to get technology out into the public domain. There's no reason—I mean, organizations like the University of California or Yale or MIT are well enough organized today that we ought to be able to turn patents around just as fast as private sector. I don't see any reason for a special exception.

Mr. SCHIFF. Anybody on that narrow issue have any different view?

Mr. Chairman, thank you. I yield back the balance of my time.

Mr. SMITH. Thank you, Mr. Schiff. Why don't you yield the balance of your time to Mr. Berman, who has another question?

Mr. SCHIFF. Yes, I would be happy to yield my time.

Mr. BERMAN. I am just wondering if the president of Yale, who has spoken against carve-outs, what they think of the University of California's desire to carve out immunity from liability in copyright and patent cases. One test of your cautiousness that Mr. Boucher observed. [Laughter.]

Mr. LEVIN. I'm not an expert on the doctrine of sovereign immunity, but I think that it's an unfortunate consequence of that doctrine that some universities are claiming exemption from infringement, whereas private universities are liable for infringement.

Mr. BERMAN. And those same universities want to enforce their patent rights——

Mr. LEVIN. That's right. Yeah.

Mr. BERMAN. —against others.

Mr. LEVIN. Yeah. I——

Mr. BERMAN. That makes it particularly strange, doesn't it?

Mr. LEVIN. We're prepared to play by the fair rules of the game. We can enforce our patents and copyrights, other people can enforce them against us. I think that's best for the American economy. If there's a way to make that true for all universities that doesn't violate important constitutional principles, I would be in favor of it.

Mr. BERMAN. Now we'll need a hearing on that subject.

Mr. SMITH. Thank you, Mr. Berman.

The other gentleman from California, Mr. Issa, is recognized for his questions.

Mr. ISSA. It is interesting that my years of watching Star Trek have come in handy. As you were explaining the problem, I immediate thought of the problem of firing while cloaked. Didn't everyone want to have that ability to fire without being fired back. And obviously, in that fiction it wasn't possible, but in this reality it is possible.

As I ask my questions, I want you to understand that I am not an attorney, I am not a patent attorney; I am a bit of a bonehead engineer. But I always talk like I have experience, because I do have 37 patents and plenty of time paying a lot of lawyers, an awful lot of lawyers, and even a few judges, it seems—— [Laughter.]

I knew that would get that reaction.

Mr. SMITH. You may want to rephrase that. Refer to the Ethics Committee.

Mr. ISSA. I cannot tell you how much I have spent over the years with judges that were doing their first Markman ruling. And I actually gave the money to the lawyer, but I knew that I was paying

for a judge to learn. If that clarifies it—yes, that is what I meant, Mr. Chairman.

As somebody who has a lot of patents, and my company has even more, I am concerned about a lot of things related to this bill. First of all, I am an advocate of eliminating the ability of people to swear behind, infinitely, their invention and reduction to practice, because I have seen that abused. There is no question, though, that a strict first-to-file is an extreme move in the other way. And I would hope that as this goes on—and I would like your comments on it—that there is middle ground, that there is the ability to recognize that if you run to the Patent Office with a half-baked, half-cocked idea—which, by the way, those who can write those up the quickest win—versus those who want to not only reduce to practice, but they also want to reduce to a form, a patent application, need to have some reasonable middle-ground time.

That would be my first question, is what about that middle ground?

Mr. LEVIN. I think it's unnecessary. And the reason I would cite that it's unnecessary is we've got thousands of American corporations today that file for patents in Europe, in specific jurisdictions in Europe as well as the EPO, and in Japan and elsewhere around the globe who are filing on a first-to-file basis and nobody's complaining about it. I don't see a problem.

Mr. BERMAN. Would the gentleman yield just on this point?

Mr. ISSA. Certainly.

Mr. BERMAN. It isn't first to file——

Mr. LEVIN. It's first inventor to file.

Mr. BERMAN. First inventor to file. But your argument in favor of the change was you won't have to have litigation about who invented, but going to first inventor to file still leaves that issue open to litigation.

Mr. LEVIN. It does. But it doesn't—it removes a big piece of it because a big piece of it is who was first to invent. Now all you have to do is establish that you are an inventor.

Mr. ISSA. Reclaiming my time, I think the one thing that we have to recognize is yes, those American corporations do it. I was one of those American corporations. I have a number of patents abroad. But of course I always worried about my home market, and my home market gave me the ability to reduce it, to have it ready, and then I always filed in the U.S. first—what a surprise. And then, oh, by the way, you file during your quiet period or during your secret period, if you will, and within that 1 year. So I am not sure that under the current law, with two standards, that you can use no objections overseas as the panacea.

As to the question of elimination—and this particularly goes to Mr. Dudas—the current law allows you do file and, even if you are filing against a competitor and both of you are selling in the market, get all the way to the end and not know what dollars you are going to receive, whether you are going to be Panduit or what standard of is the infringement going to be analyzed as market share, is the infringement going to be analyzed as if you were exclusive and there were no non-infringing. All those issues are post-getting a decision, and then you go into that whole other phase. As a result, if you eliminate the ability to get treble damages, what

you have done is taken—and you put two levels of uncertainty into the argument. You have put the level of uncertainty of even whether you are going to get legal fees, and you have put the uncertainty as to where you can get to the end of the day and end up getting that famous 2 cents because they look and say, well, there were so many other noncompeting uses that we are not going to give you any of these tests that give you a reasonable loss of profits.

If you do away with one, aren't you in fact going to have to fix—and that is my question—fix the other so that there would at least be better certainty as to your award if you prevail, if you are going to take away the high end of treble? And I just as for leave for them to answer.

Mr. SMITH. Oh, okay. And without objection, the gentleman has another 2 minutes as well.

Mr. DUDAS. Can you premise your question again? I'm sorry, I lost you at the very beginning.

Mr. ISSA. Right now you start off and you file a lawsuit against a competitor—you are in the market, he is in the market, you believe that there is no non-infringing use, you know of none—but you go through the entire multi-year process. And even if he develops one during the period, he can diminish your claim to where you start off saying I am entitled to lost profits, he is doing $100 million worth of these, and that is $100 million times my profit, that is 33 EBITDA, I am entitled to this.

So you start off with this, hey, look, he is infringing $33 million a year of damages. You get to the end, and somebody might give you a reasonable royalty, based on some judge or jury—well, judge, basically, most of the time. He is going to give you a reasonable royalty of 2 cents, based on your invention and not lost profits, because during the time somebody developed a non-infringing, or they believe there is a non-infringing use. So you have a skew. You have from 2 cents a unit that ends up being one-tenth of your legal fees, to $33 million a year. That is very often, at least in my experience, the window you are dealing with.

When you say treble damages, at least the judge looks and says hell, this isn't enough of an award no matter how—and he says but it was willful, and he has the ability to triple it and provide you reimbursement for your legal fees.

It sounds like this legislation anticipates, and some of you are saying, let's take that away. And my question is, assume for a moment we are taking it away. Don't you have to give back something, or what you end up with is all of the downside, none of the upside. And patent infringement is about protecting real property. And so I would like your comments on that.

Mr. DUDAS. I'm sorry. I agree that—and actually I'll take it back one step. I think that there is a reason for willful damages. I think there's a reason for treble damages. I think the issue that has come up is the question of how it's being applied and what it's doing. Our patent system is about disclosure. If it's being applied in such a way that it's causing people not to get more information, not to become more informed, that that becomes a problem. So I would argue that although we should look at how it's being applied, that there is a basis for treble damages and willful infringement, and

if that is gone, there should be something to be looked at along those lines. But I think that it shouldn't be gone.

Mr. ISSA. Mr. Levin, you wanted to answer?

Mr. LEVIN. Well, this is more—you know, right now the area of damages is left pretty much at the discretion of the courts. And there are a variety of standards for awarding damages. And, you know, it's perfectly possible to make, you know, strong and credible cases that lost profits ought to be the basis for—and in many cases they are the basis for an award. Are you really objecting to the uncertainty, as opposed to the amounts?

Mr. ISSA. I'll be very brief. If you don't know whether you are going to get lost profits, and reasonable royalties can be very small, you have—without treble damages you lose the ability for a judge to say, look, this was willful infringement and unless I can give him his legal fees and triple this 2 cents reasonable royalty, I can't bring any justice to this arrangement because we have gone on for 2 years and $2 million apiece, the guy has built his market on cheating on this guy, and I am going to provide an injunctive relief today, but unfortunately I am stuck with a standard of the industry royalty which I don't intend on giving you, but—and essentially you are getting a royalty charge as though I wanted to give you one, in many cases, at the end of a court trial.

Mr. LEVIN. Yeah, but I've seen many cases in which the argument for reasonable royalties is rejected in favor of lost profits.

Mr. ISSA. No, no, we are saying that if you don't bring the certainty in, then the fact is, by eliminating the 3-times, the judge has no ability to even balance what would seem to him to be an unreasonable reward, but one in which he cannot use lost profits. Remember, the lost profits are only good if there is a non-infringing alternative—if there isn't a non-infringing alternative. Once there is a non-infringing alternative, you are dropping down this list and the dollars drop way off. And like every other thing we have talked about here, there is always a claim and there is always an expert who says there is a non-infringing alternative. And no matter how crummy it is, they have to consider it as though the expert is telling the truth.

Mr. LEVIN. I see your point.

Mr. SMITH. Thank you, Mr. Issa.

Let me thank the witnesses for their testimony today. It has been most helpful, most informative. As you all know, we hope toward the end of May to have a piece of legislation that will be more final in its nature, and your testimony today has helped us move the ball along and get closer to that goal.

I would also like to thank everyone in the audience for their interest in the subject at hand. Really, this is the first effort, I think, at comprehensive patent reform in a number of years, as you heard several Members mention today. And we appreciate your participation and interest and listening as well.

With that, we stand adjourned.

[Whereupon, at 1:43 p.m., the Subcommittee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE HOWARD L. BERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND RANKING MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

Mr. Chairman,

Thank you for scheduling this hearing on patent reform. In the past 4 years, my colleague from Virginia and I have introduced legislation on patent quality reforms multiple times. Most recently, in October, we introduced HR 5299, The Patent Quality Assistance Act, which attempted to address many of the problems that continue to exist in our patent system. The bill helped foster discussions among diverse industry groups, all of which now recognize the need for changes to the patent law. While there are many different views about how to amend the law, we all share a common goal—improving the quality of the patent system.

Our patent system was designed to promote continual innovation by providing strong protection for intellectual property. However, if we protect invalid patents, the system will have the opposite effect, that of hindering creative output. Furthermore, the introduction of poor quality patents into the marketplace actually increases the amount of litigation and has a negative effect on the economy.

The problem of low quality patents cuts across the entire spectrum of art units that the Patent Office examines, but the chief culprits are patents in the business methods and software area. The famed one click patent and the patent for a method allowing automobile purchasers to select options for cars over the internet, represent only a drop in a very large bucket of questionable quality patents.

The Patent Office has initiated what it calls a "second set of eyes review" in an effort to address the problem, but that is merely a stop gap measure. Without an assurance of sufficient funding every year, the PTO cannot maintain the staff it needs to administer the reviews or implement new quality initiatives. Therefore, funding for the PTO and an end to diversion of collected fees need to remain top priorities in any reform effort.

Furthermore, any legislative solution to the problem of patent quality must address deficiencies both at the front end of the process, the examination stage which takes place in the PTO, and at the back end, which takes place in the courtroom. Inventors should have confidence about the quality of the patents they receive before investing further in research and development, and equally secure in the knowledge that they can properly enforce that patent.

In this vein, I have a couple of concerns relating to the committee print. The print primarily describes reforms to litigation and remedy provisions. While many of the suggestions are worthwhile, I am concerned that we are merely treating the symptoms without enough emphasis on curing the underlying disease. Patent quality needs to remain a focus with an objective of minimizing litigation on numerous invalidity claims. For example, including a provision on allowing submissions of additional prior art to an examiner may be helpful in addressing this poor quality problem.

Furthermore, much of the print speaks to harmonization of U.S. patent law with patent law in the rest of the world, for example, shifting from a first to invent paradigm to one of first inventor to file. While this is a very important and necessary discussion, I am concerned that opposition to these provisions at this point will affect the ability to achieve other essential patent reform.

I am looking forward to hearing from today's witnesses to identify potential solutions to the problems created by questionable patent quality. Some of the suggestions for change, such as the injunction provision, may not be palatable to some of the witnesses. However, I throw out a challenge to those witnesses, help us craft a resolution to the problem the injunction provision was designed to address, that

of the patent troll. While the structure of the discussion may be centered around the committee print, I hope that the witnesses here and at future hearings will identify additional possibilities for resolving patent quality problems. I look forward to working with the Chairman in drafting effective patent legislation.

LETTER TO THE HONORABLE LAMAR SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS, AND CHAIRMAN, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY, FROM WILLIAM L. LAFUZE, PARTNER, VINSON & ELKINS, LLP, AND CHAIR, SECTION OF INTELLECTUAL PROPERTY LAW, AMERICAN BAR ASSOCIATION, ON BEHALF OF THE AMERICAN BAR ASSOCIATION AND THE ABA SECTION OF INTELLECTUAL PROPERTY LAW

May 4, 2005

The Honorable Lamar S. Smith
Chairman
Subcommittee on Courts, the Internet, and Intellectual Property
Committee on the Judiciary
United States House of Representatives
Washington, D.C. 20515

Dear Chairman Smith:

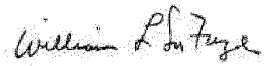
At the close of the April 20, 2005 hearing of the Subcommittee on patent quality improvement, Mr. Berman asked the witnesses to submit in writing their views on allowing third-party prior art to be submitted to PTO patent examiners during the examination process. I assume that the witness responses are to be submitted to you for inclusion in the record.

As Mr. Berman noted, the Committee Print contains no provisions on third-party submission of prior art. The Section of Intellectual Property Law has no formal position on such a proposal, but has the matter under active consideration and expects to develop a formal position by the end of this month.

Our initial reaction to such a proposal is positive. We believe that such a process could provide examiners with additional relevant information as to existing prior art, and improve the quality of examiner decisions. It is contemplated that the PTO will promulgate corresponding rules that would allow the submission of such prior art in a way that will not unreasonably delay the process of examination and issuance of worthy patents. I believe this view is widely supported in the organizations with which we are consulting pursuant to your request for industry and association collaboration with a view toward developing consensus on the patent reform issues under consideration.

We of course are aware that H.R. 5299, the "Patent Quality Assistance Act of 2004," which Mr. Berman introduced on October 8, 2004 for himself and Mr. Boucher, contains provisions authorizing third-party submission of prior art. We believe that the provisions of section 4 of that bill provide useful proposals for components of a program for pre-grant submission of prior art, including provisions on relevance and accuracy of the submissions, time limits for submission, and financing of the system.

Very truly yours,



William L. LaFuze
Chair, Section of Intellectual Property Law
American Bar Association

cc: Members of the Subcommittee

RESPONSE TO QUESTIONS SUBMITTED BY THE HONORABLE DARRELL ISSA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, TO J. JEFFREY HAWLEY, LEGAL DIVISION VICE PRESIDENT AND DIRECTOR, PATENT LEGAL STAFF, EASTMAN KODAK COMPANY, ON BEHALF OF INTELLECTUAL PROPERTY OWNERS ASSOCIATION (IPO)

May 13, 2005

Representative Darrell Issa
211 Cannon House Office Building
Washington, DC 20515

Dear Representative Issa:

I am writing with IPO's reply to the three questions that you sent following the hearing on April 20, 2005, at which our president, J. Jeffrey Hawley, testified. We very much appreciate the opportunity we had to present our views to you, Chairman Smith, and the other members of the Subcommittee on Courts, the Internet, and Intellectual Property.

Question:

> Many parties have stated that claims for willfulness and thereby treble damages have become much too common within patent litigation. However, there still remains uncertainty surrounding whether or not a litigant has a right to receive treble damages at the outset of litigation. What would you recommend to alleviate some of this uncertainty, if this is needed?

Reply: Damages of any kind, of course, are not established until after infringement is proven in a trial, which often includes litigation over the validity of the patent as well. If damages are proven, the damages will cover the period of the infringing activity. We favor treble damages as outlined in Mr. Hawley's statement of April 20 when the infringer has been given adequate and specific notice of infringement and continues to infringe, subject to the requirements of the Committee Print. With the changes in the Committee Print, the current law will provide greater certainty on whether the patent owner should receive treble damages. If the patent owner has given adequate notice of clear infringement of a clearly valid patent and is aware that the infringer is continuing to deliberately infringe, the patent owner can expect to receive treble damages.

Question:

> Judges currently have the option to conduct Markman hearings at various stages of a trial. Should judges be required to hold these hearings at the beginning of litigation so that parties have a better idea of the real claims and their interpretation? Also, is it not true that the ability to design non-infringing patents is dependant upon knowing the scope of claims?

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Reply: It is helpful to the parties to know the real claims and their interpretation at an early stage. Judges vary in their preferences as to when to conduct Markman hearings. Some judges feel it is better to wait until discovery is completed to interpret the claims so that they have the factual context of the case as background. In fact, the parties do not know the real interpretation of the claims in cases appealed to the U.S. Court of Appeals for the Federal Circuit until after appeal, and a significant number of claim interpretations are overruled on appeal.

When Markman hearings were created it was hoped that they would eliminate a great deal of litigation expense. To date that aim has not been realized. We still hope Markman hearings will evolve in a way that will bring greater efficiency to the judicial process. We believe it is better to leave the timing of Markman hearings to continued development by the courts and allow the courts to search for the best balance of early stage claim interpretation and other considerations. It is true that the ability to design non-infringing products and processes is dependent on knowing the scope of the claims. The incentive to design around a patented invention and create different and improved alternatives is one of the benefits of having a patent system. From this standpoint early clarification of the scope of claims is important.

Question:

> One of the proposals within the broader patent reform debate is the establishment of a "Post Grant Review Process" at the PTO. The goal of this Post Grant system is to decrease the amount of litigation in the District Courts. However, some parties have expressed a desire for there to be some sort of trigger so that litigants may remove the review from the PTO to District Court. Is a trigger needed and how would you structure it if it is?

Reply: IPO favors establishing a post-grant review process for the reasons explained in Mr. Hawley's April 20 statement. We view it as a useful supplement to the patent examination process in the U.S. Patent and Trademark Office that will help increase confidence in the reliability of patents by uncovering possible reasons for patent invalidity that the PTO cannot learn of on its own. A post-grant review process should not interfere with the ability of patents owners to enforce their patents in district courts. We support a rule that if an infringement suits is brought against an accused infringer in district court before the filing of a post-grant review request by the accused infringer, then any post-grant review proceedings involving the patent should be stayed until the infringement suit is finally resolved. Others have suggested variations such as staying the post-grant review proceeding if an infringement suit is filed anytime during the first nine months after patent grant. We have not considered any broader trigger that might be made available to the patent owner to remove an action to district court, but we agree that the ability to enforce patents in district courts in a timely manner must be preserved.

* * *

Reply: It is helpful to the parties to know the real claims and their interpretation at an early stage. Judges vary in their preferences as to when to conduct Markman hearings. Some judges feel it is better to wait until discovery is completed to interpret the claims so that they have the factual context of the case as background. In fact, the parties do not know the real interpretation of the claims in cases appealed to the U.S. Court of Appeals for the Federal Circuit until after appeal, and a significant number of claim interpretations are overruled on appeal.

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* * *

RESPONSE TO QUESTIONS SUBMITTED BY THE HONORABLE DARRELL ISSA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, TO RICHARD J. LUTTON, JR., CHIEF PATENT COUNSEL, APPLE, ON BEHALF OF THE BUSINESS SOFTWARE ALLIANCE (BSA)

Questions for the record – Patent Reform hearing on April 20, 2004

Congressman Darrell Issa

1) Many parties have stated that claims for willfulness and thereby treble damages have become much too common within patent litigation. However, there still remains uncertainty surrounding whether or not a litigant has a right to receive treble damages at the outset of litigation. What would you recommend to alleviate some of this uncertainty, if this is needed?

Answer:

We agree that the threat of treble damages, based on mere knowledge that the infringing patent existed, presents a serious problem. Because mere knowledge now creates the basis for willfulness, too many time inventors are deterred from doing proper searches of prior art. The net result is that not enough information is provided to the examiner, who is them compelled to determine whether to grant the patent on an incomplete record. In addition, it has now become common for a person when notified to a potential infringement to seek a letter from counsel stating no infringement is likely. This is expensive and does little to advance the goal of ensuring quality patents and deterring frivolous litigation.

We believe the best way to address this problem is to change the law the law to state clearly that punitive treble damages, like other punitive damages, should be awarded only when it is demonstrate that the infringer acted in bad faith, for example by slavishly copying a patented invention or by ignoring a court order.

2) Judges currently have the option to conduct Markman hearings at various stages of a trial. Should judges be required to hold these hearings at the beginning of litigation so that parties have a better idea of the real claims and their interpretation? Also, is it not true that the ability to design non-infringing patents is dependant upon knowing the scope of claims?

Answer: A key factor is determining whether an allegation of infringement is meritorious is knowing the scope of the patent and its

validity. An early determination of scope and validity by a court would cut down substantially on litigation costs and the encourage parties to settle to their claims early.

3) One of the proposals within the broader patent reform debate is the establishment of a "Post Grant Review Process" at the PTO. The goal of this Post Grant system is to decrease the amount of litigation in the District Courts. However, some parties have expressed a desire for there to be some sort of trigger so that litigants may remove the review from the PTO to District Court. Is a trigger needed and how would you structure it if it is?

Answer: Post grant processes as have been proposed in the Committee Print are aimed at providing parties with an alternative to costly litigation. Such a process would enable a party to challenge a patent in a faster and more effective way, while protecting the inventor from undue litigation. The process is a complement to litigation, and not a substitute. Inevitably there will be situations when fair resolution of a dispute requires court action.

RESPONSE TO QUESTIONS SUBMITTED BY THE HONORABLE DARRELL ISSA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, TO JEFFREY P. KUSHAN, ESQ., SIDLEY AUSTIN BROWN AND WOOD, LLP, ON BEHALF OF GENETECH

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May 9, 2005

The Honorable Darrell Issa
United States House of Representatives
211 Cannon House Office
Washington, DC 20515

Dear Representative Issa,

I am writing to respond to questions you posed to Genentech, Inc., following the April 20 hearing of the House Subcommittee on Courts, the Internet and Intellectual Property on certain patent reform issues. Genentech very much appreciates your interest and leadership on patent reform issues. And, as a California-based company, we are very much interested in working with you to ensure that Congress makes effective and desired reforms to the patent system.

In testimony before the Subcommittee, I indicated that Genentech supports reforms to several areas of the patent system. The Committee Print addresses many of these topics. We are concerned, however, with certain provisions in the Committee Print. For example, we do not believe it is desirable or appropriate to alter the standards that govern the right of a patent owner to obtain a permanent injunction once that patent owner has proven its patent to be valid and infringed. We also do not believe the approach in the Committee Print to limiting the presentation of "broader" claims in prosecution of patent applications is viable. Certainly, we are open to reforms that improve the operation of the patent system, and in particular how the PTO conducts examination of patents. In this respect, we note that several reforms can and should be pursued to change how the PTO does its work that are not included in the Committee Print. I would encourage you to review Genentech's testimony before the Subcommittee for a fuller explanation of such reforms.

You have presented three questions to Genentech for response for the record, which are reproduced below in bold text. Our response follows each question.

1) **Many parties have stated that claims for willfulness and thereby treble damages have become much too common within patent litigation. However, there still remains uncertainty surrounding whether or not a litigant has a**

right to receive treble damages at the outset of litigation. What would you recommend to alleviate some of this uncertainty, if this is needed?

As others have testified, parties often pursue claims of willful infringement to increase the financial stakes and therefore the risk to a party accused of infringement. These claims are made before there is any judicial determination that the asserted patent is valid and infringed, and without any actual evidence that the party acted in willful disregard of the patent. As others have stated, willfulness claims are often pursued as tactical choices designed to increase discovery burdens and the complexity of the litigation.

The current standards that govern willful infringement make it difficult to predict what actions will be found by a jury to constitute willful infringement. Among other things, this creates greater uncertainty, which undermines the ability of companies to assess the risk of an accusation of infringement.

Genentech believes several reforms can be pursued that will improve the state of the law governing willful infringement. One reform would be to preclude a court from taking up the question of willful infringement until it had first found there to be infringement of a valid patent. This is a logical reform that would help reduce the coercive effect of a claim of willful infringement and avoid the often prejudicial effect of having a jury consider willfulness before there has been a finding of infringement of the patent.

A second reform would be to create defenses to claims of willful infringement that do not rest exclusively on the contents of opinions of counsel about the patent being asserted. In this respect, we believe the law should permit a party to preclude a finding of willful infringement by presenting evidence that it had sought to avoid infringement, including by altering its product or other activities to "design around" the asserted patent. This should be an alternative – not a replacement – to the defense of reasonable reliance upon an opinion of a patent lawyer that the patent in question was invalid, unenforceable or would not be infringed. These defenses should be incorporated explicitly into the patent statute, and we believe doing so is consistent with the ruling by the Court of Appeals for the Federal Circuit last year in *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.* 383 F.3d 1337, 1342 (Fed.Cir.2004), that willfulness must be determined by a "totality of the circumstances" analysis.

A third reform would limit the ability of a patent owner to obtain discovery of the contents of opinions of counsel, at least until a determination of infringement had been made. Current law puts a difficult choice before an accused infringer that had obtained advice of counsel once it had learned of the existence of a patent. Specifically, if the accused infringer wishes to use such legal advice to refute a claim of willful infringement, it must waive the attorney-client privilege attached to that advice. An accused infringer should not have to make such a significant and consequential election until there has been a judicial determination that the asserted patent is indeed valid and infringed. Reforms along these lines would reduce the proliferation and exploitation of unwarranted willfulness claims, while preserving the ability of patent owners to obtain enhanced damages for truly egregious conduct. We would encourage

you and the other members of the Committee to pursue these additional reforms beyond the proposals in the Committee Print.

2) **Judges currently have the option to conduct Markman hearings at various stages of a trial. Should judges be required to hold these hearings at the beginning of litigation so that parties have a better idea of the real claims and their interpretation? Also, is it not true that the ability to design non-infringing patents is dependent upon knowing the scope of claims?**

The role of Markman hearings is significant in most patent cases. The results of the hearing frequently are dispositive as to the critical questions of validity and infringement of the patent. While it is desirable to obtain a clear understanding of the claims as soon as possible in the proceeding, it is just as important to ensure that all relevant evidence is produced that can influence the court's determination of the meaning of the claims. Thus, while Genentech generally agrees that Markman hearings should be conducted expeditiously, it does not believe it would be appropriate or advisable to incorporate into the patent statute a specific mandate for courts to conduct these hearings at a fixed point in time in the litigation.

Genentech agrees with your observation that the ability of the public to know the scope of the patent claims is very important. In this respect, we would support reforms that improve the examination process so that patent claims are issued that are clear and can be understood from a complete record of the examination of the patent.

3) **One of the proposals within the broader patent reform debate is the establishment of a "Post Grant Review Process" at the PTO. The goal of this Post Grant system is to decrease the amount of litigation in the District Courts. However, some parties have expressed a desire for there to be some sort of trigger so that litigants may remove the review from the PTO to District Court. Is a trigger needed and how would you structure it if it is?**

Genentech strongly supports establishment of a viable and fair post-grant review procedure that would be administered by a new "Opposition Division" within the Patent and Trademark Office. The Committee Print advances a proposal to establish such a system, but this proposal needs several reforms to make it viable as well as equitable.

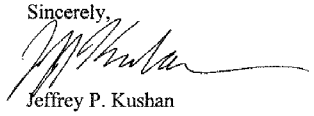
One important change concerns the threshold showing that an opposer must make to commence an opposition proceeding. The Committee Print presently would permit any third party to commence an opposition proceeding on any type of showing. The burden would then fall to the patent owner to justify termination of the proceeding. We believe it is more appropriate and balanced to require an opposer to present reasoned arguments and evidence that raise a substantial new question of patentability of at least one claim in the patent, and to have the PTO independently confirm the sufficiency of this showing before an opposition proceeding is commenced.

A number of other changes to this section of the Committee Print, in our view, are necessary, which are summarized in our testimony before the Committee.

The question you pose relates to the ability of a patent owner to effectively enforce its patent rights once the patent issues from the PTO. We believe a patent owner should not be impeded in its ability to commence an action for infringement of the patent, even if an opposition proceeding has been commenced. We support incorporating into the post-grant review system a provision that if a patent owner brings an infringement action during the pendency of an opposition proceeding, the patent owner may request and district court judge in his or her discretion may order a stay of the opposition proceeding while the litigation proceeds. At the same time, we do not believe that the commencement of an opposition proceeding should be a basis for delaying or staying the infringement action.

In conclusion, we very much appreciate the opportunity to share our views with you, and thank you for your efforts to improve the patent system.

Sincerely,



Jeffrey P. Kushan

RESPONSE TO QUESTIONS SUBMITTED BY THE HONORABLE DARRELL ISSA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, TO WILLIAM L. LAFUZE, PARTNER, VINSON & ELKINS, LLP, AND CHAIR, SECTION OF INTELLECTUAL PROPERTY LAW, AMERICAN BAR ASSOCIATION, ON BEHALF OF THE AMERICAN BAR ASSOCIATION AND THE ABA SECTION OF INTELLECTUAL PROPERTY LAW

May 4, 2005

The Honorable Lamar S. Smith
Chairman
Subcommittee on Courts, the Internet, and Intellectual Property
Committee on the Judiciary
United States House of Representatives
Washington, D.C. 20515

Dear Chairman Smith:

This letter is submitted in response to written questions submitted to me by Congressman Darrell Issa on April 29, 2005, with respect to the Subcommittee Hearing on April 20, 2005 on patent quality improvement.

At the outset, let me again express the appreciation of the American Bar Association and its Section of Intellectual Property Law (the "Section") for the opportunity to testify and to provide assistance with respect to the efforts to reform and improve our patent laws. And also, let me express our appreciation to you for your work on this very important project that will spur innovation, improve the patent system, and ultimately, benefit mankind.

The views expressed herein in response to Mr. Issa's questions have not been approved by the ABA House of Delegates or Board of Governors, and therefore are those of the Section of Intellectual Property Law alone.

Our responses are set forth after the questions posed by Mr. Issa which appear below:

1) Question: Many parties have stated that claims for willfulness and thereby treble damages have become much too common within patent litigation. However, there still remains uncertainty surrounding whether or not a litigant has a right to receive treble damages at the outset of litigation. What would you recommend to alleviate some of this uncertainty, if this is needed?

   RESPONSE: The Section agrees that claims for willfulness in an effort by a patent owner to collect enhanced damages from an infringer are so commonplace in patent litigation as to make patent litigation unnecessarily costly, protracted, and complicated. The current practice of using an attorney opinion as defensive evidence to a charge of willfulness has created serious problems as to the scope of waiver of privilege, particularly as to advice given to an accused infringer by its trial counsel. The Section has a specific

recommendation to solve this problem---delay discovery and trial with respect to willful infringement until after, and if, there is first a finding of infringement. The Section contemplates that the discovery of willfulness would follow a trial on other liability issues within 30-60 days. Trial on the willfulness issue would be set promptly after such 30-60 day period. Since liability is found in only about 60% of cases tried, the discovery and trial on willfulness would be totally eliminated in about 40% of all cases. For cases in which liability is found, discovery and trial of the willfulness issue would occur without waiver of privilege as to trial counsel in most cases, even when the attorney-client privilege of opinion counsel on which the accused infringer relies is intentionally waived. For more information, see the Section's witness statement, pp. 29-31. The Section continues to give attention to these issues, both internally and with other interested organizations, and expects to offer additional recommendations in the near future.

2) Judges currently have the option to conduct markman hearings at various stages of a trial. Should judges be required to hold these hearings at the beginning of litigation so that parties have a better idea of the real claims and their interpretation? Also, is it not true that the ability to design non-infringing patents is dependant upon knowing the scope of claims?

   RESPONSE: The Section currently has no position on this issue, but offers a few comments that may be helpful. Many practitioners believe that Markman hearings should be held, and rulings given, relatively early in the pre-trial process. The entry of a Markman order by which the district judge construes the patent claims may often resolve one of the most important issues in dispute, and encourage summary judgment or settlement. It is true that the ability to design with certainty around a patented invention requires a determination of the meaning of the claims, and therefore, the scope of the patent. The scope is often determined by the district judge, but claim interpretations by district courts are often reversed on appeal by the United States Court of Appeals for the Federal Circuit. Thus, even if Markman rulings are encouraged early in the pre-trial stage of a case in district court, the final ruling on claim construction does not occur until an appellate decision is rendered.

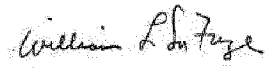
3) One of the proposals within the broader patent reform debate is the establishment of a "Post Grant Review Process" at the PTO. The goal of this Post Grant system is to decrease the amount of litigation in the District Courts. However, some parties have expressed a desire for there to be some sort of trigger so that litigants may remove the review from the PTO to District Court. Is a trigger needed and how would you structure it if it is?

   RESPONSE: The Section has no formal position on the question posed. However, we note that one goal of Post Grant Review is to decrease the amount of litigation in the courts. Another is to provide a quick and relatively inexpensive alternative to correct mistakes made by the PTO, and defects in patents, by instituting an opposition proceeding within 12 months or less after issuance of a

patent. Invalid patents, even those not in litigation, frustrate the patent system because they are presumed valid until declared invalid by the PTO or a court. The proposal for a post grant opposition proceeding would allow third parties to take validity issues back to the PTO within this limited time in an attempt to strike patents even when they are not otherwise in litigation.

The Section stands ready to be of assistance to the Subcommittee in any way possible as you consider patent quality improvement issues.

Very truly yours,



William L. LaFuze
Chair, Section of Intellectual Property Law
American Bar Association

cc: Members of the Subcommittee

PREPARED STATEMENT OF THE HONORABLE HOWARD L. BERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND RANKING MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

Thank you for scheduling this hearing to continue our discussion on patent reform. Last week we heard differing opinions about which sections of the patent law should be reformed, and how those reforms should be accomplished. Some of the witnesses stressed changes in litigation rules for patent cases, while others focused on the need to harmonize. U.S. patent laws with foreign patent law. However, all of the witnesses seemed to agree that bolstering the level of patent quality is integral to a workable patent system.

The foundation of the patent system is the idea that the Patent and Trademark Office grants high quality patents. However, over the past few years, a larger number of questionable patents have been issued, leading to increased litigation and uncertainty in markets that are heavily dependent on patent rights. There are many possible reasons for the questionable quality—lack of funding resulting from fee diversion, lack of appropriate resources or training materials, an increase in the backlog of patent applications, or even exposure to new patentable subject matter, such as business method patents. While the PTO has made great strides in addressing this problem, more needs to be done to restore confidence in the patent system. Congress has an important role to play in helping bring about that change.

The Committee print has provided a useful set of guidelines that identify some of the key areas in need of reform. In fact, many of the provisions are almost identical to the ones Mr. Boucher and I proposed last year. However, an issue we addressed with our third party prior art submission provision, and which deserves greater attention in the committee print or any future legislation, is how to address quality on the front end of the examination process.

I anticipate a spirited discussion today on the merits of some of the proposals in the Committee Print. As I did last week, I submit a challenge to those critical of certain provisions—if you have a problem with a proposal, help us craft a better solution. Because we are planning to introduce a patent bill in the near future, I hope the many interested groups can work together to help us formulate some answers to the problems facing the patent system today. I continue to look forward to working with the Chairman to draft effective patent legislation.

MEMORANDUM TO THE HONORABLE LAMAR SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS, AND CHAIRMAN, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY AND THE HONORABLE HOWARD BERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND RANKING MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY FROM DARIN E. BARTHOLOMEW, SENIOR ATTORNEY, PATENT DEPARTMENT, JOHN DEERE & COMPANY

MEMORANDUM TO: CHAIRMAN LAMAR SMITH
RANKING MEMBER HOWARD BERMAN

FR: Darin Bartholomew, Senior Attorney, Deere & Company

DT: April 29, 2005

RE: Question on Sec. 271

The proposed change to section 271(f) appears to be an attempt to (1) exempt intangible items (e.g., possible software or embedded software) from contributory infringement as set forth in section 271(f) and (2) require an actual combination of components for tangible items to show contributory infringement under section 271(f). With respect to above item 1, under the Committee Print language the sale of a specially designed intangible component (e.g., software) in the U.S. for assembly or use in a patented combination or process in a foreign country would no longer constitute contributory infringement under section 271(f). With respect to above item (2), case law has interpreted section 271(f)(2) as merely requiring a showing that an infringer shipped components with the intent that the components be combined, without requiring an actual physical combination. Waymark Corp. v. Porta Systems Corp., 245 F.3d 1364, 1368 (Fed Cir. 2001.) However, the Committee Print apparently would require a physical combination to show infringement. The proposed change to 271 in the Committee Print may be an attempt to over-rule cases such as Eolas Technologies, Inc. v. Microsoft Corp or Imagexpo L.L.C. v. Microsoft Corp, where Microsoft was held liable for patent damages for copies of software distributed outside the U.S. that were copied from a master software version shipped from the U.S.

We are concerned that the changes to section 271 in the Committee Print could be too broad and have unintended consequences.

PREPARED STATEMENT OF JACK HAKEN, VICE PRESIDENT, INTELLECTUAL PROPERTY & STANDARDS, U.S. PHILIPS CORPORATION

Mr. Chairman and members of the subcommittee, I'm Jack Haken, Vice President for Intellectual Property and Standards of U.S. Philips Corporation. I appreciate this opportunity to express our views on a topic of vital interest to Philips, namely preserving the current patent protection against infringing exports that is provided by Section 271(f) in Title 35 of the United States Code.[1] As I will explain in my testimony, we are opposed to the amendment proposed in Section 10 of the Committee Print.

Philips is a manufacturer of electronic and electrical products and is one of the largest users of the patent systems in the United States and other industrialized countries. Last year we filed U.S. patent applications for about three thousand new inventions. Scientists and engineers at our U.S. laboratories have made pioneering advances that revolutionized and revitalized the electronics industry with innovations that led to high definition television, optical CD and DVD recording, digital cellular telephones, medical imaging and digital rights management. In 2004 Philips reported income from licensing our patented inventions that was well in excess of five hundred million dollars.

Section 271(f) is particularly important to our industry because it allows us to protect our intellectual property rights when American based companies export specialized components and parts kits for assembly in countries that do not have useful patent enforcement systems: in particular China, Taiwan, Korea and India.

As background, I would like to speak briefly about two major changes that have affected the electronics hardware industry during the past decade and which make Section 271(f) so important to us.

The first change is a well-recognized shift of high volume electronics manufacturing from the United Sates to overseas contract facilities. America is no longer a competitive site for manufacturing this equipment, but we remain a primary source of new ideas, technology and essential components that we export to the manufacturers. Royalties on exports of patented technology are a significant reason that our domestic research establishment remains vital.

The second change is, perhaps, not as visible as the first; in 1990 almost all consumer electronic devices were implemented in separate specialized sets as combinations of hardware circuit elements. For example, televisions, VCR's and telephone answering machines were produced and marketed in separate boxes and often via different selling channels. Today those same product functions are usually implemented in software and we are moving toward a small number of common multiuse hardware platforms. Software programs on personal computers and PDA's now provide audio and video recorder functionality. Cameras and music players are furnished as software features in cellular telephones and television players will soon follow. In this context, the boundary between hardware and software becomes fuzzy. Software and firmware code effectively reconfigures the hardware circuits to perform particular player or display functions that were formerly achieved in fixed circuitry.

The interchangeability of electronic hardware and software has also softened the boundaries between our traditional marketing and sales channels. Today we find that the traditional electronics manufacturers, major software houses and PC integrators are direct competitors for the same consumer electronics product space.

Section 271(f) was enacted by Congress to plug a 1972 judicially-created loophole that had allowed American companies to avoid liability for patent infringement by unassembled kits of parts or essential components of patented combinations which they exported for assembly overseas.

In March 2005 the United States Court of Appeals for the Federal Circuit confirmed that software code that Microsoft had exported to overseas manufacturers for incorporation onto the disk memories of computer systems was a "component" within the meaning of section 271(f). Judge Rader found that Microsoft's software "morphed" into hardware in the computer systems and that there was no indication of Congressional intent that the statute would distinguish between hardware and software or tangible and intangible components. Judge Rader also found that any attempt to single-out the software industry as exempt from Section 271(f) would run afoul of the United States' treaty obligations under the TRIPS Agreement.

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[1] The proposed text for Section 271(f)(3) is confusing inasmuch as it is unclear whether the phrase "under this section" is intended to only apply to subsection 271(f) or to all of section 271 (e.g. Whether the carve-out for intangible components will also change the scope of domestic contributory infringement under section 271(c)). For purposes of this testimony, we assume that the changes are intended to affect only to subsection 271(f). If the proposal is carried-over into later drafts, we suggest that the ambiguity be clarified.

Let me cite some examples of Philips' patent licensing programs that would have been negatively affected if proposed section 271(f)(3) had been law when we obtained our relevant patents:

1) *Optical Recording*—Philips invented the technology that enabled development of the CD and DVD industries. We have patents in our portfolio that cover apparatus and methods that format and index data on these discs. When we started licensing these patents, the patented technology was implemented as hardware circuits in disc drives and recorder sets. Today the same technology is being implemented as PC software that is internationally marketed and distributed over the Internet and as firmware that is stored in semiconductor memory chips. We have great concern that any requirement that limited export patent protection to "tangible" items that are "combined physically" would impact our ability to bring infringement actions against exporters who utilize the Internet to distribute original and upgrade software to manufacturers and users in developing countries where local intellectual property law enforcement is of little worth.
2) *Speech and Image Coding*—Philips invented important methods and apparatus for speech and image coding which we license to manufacturers of cellular telephone, digital cameras and set-top boxes. Large scale production of these products has quickly moved from the United States to other countries that have immature intellectual property enforcement systems like Taiwan, Mainland China and Korea, but American companies are, and are likely to remain, the developers and providers of the application and operating system software that controls the hardware and implements the coding methods. The software is often exported to manufacturers either as source code, master object code copies or as firmware on semiconductor memory chips. Upgrade software is regularly distributed over the Internet and over cable television networks. Again we have great concern that any requirement that limited export patent protection to "tangible" items that are "combined physically" would impact our ability to bring infringement actions against exporters who distribute this original and upgrade software.
3) *Medical Imaging*—Philips is one of the world's largest manufacturers of medical imaging equipment. Almost ten thousand of our United States employees work on medical products. Much of this equipment is computer-based; the processes that enable our CT, MRI and ultrasound scanners and our patient monitoring systems are executed and controlled by software. New examination techniques and upgrades are distributed and installed using data formats which arguably intangible and would arguably be excluded from export patent protection if Section 271(f) were amended as proposed in Section 10 of the Committee Print.
4) *Digital Personal Video Recorders (PVR's)*—Philips manufactured the first Tivo brand personal video recorders and the technology has already changed the television viewing habits of the American public. Philips' patented video compression technology enables these machines to pack recorded video signals onto hard disk drives. Today the same functionality and methods are implemented in PC software that is bundled with operating systems and distributed over the Internet.
5) *Digital Rights Management*—Philips holds a significant minority interest in InterTrust Technologies Corp. InterTrust owns and licenses a large portfolio of patents for digital rights management technology that enables the owners of copyrighted music, video works, books and other proprietary data to regulate and collect royalties when their properties are distributed on electronic media and/or over the Internet. In 2004 Philips reported a gain of over one hundred million dollars from the patent licensing activities of InterTrust. Components of many of these patented DRM systems are necessarily distributed at the same time and over the same media or channel with the creative materials that they manage and protect. However we have great concerns that future inventions in this area will not meet the "tangible" and "combined physically" limitations of proposed section 271(f)(3) and would thus not receive adequate export patent protection.
6) *Travel Route Planning*—Scientists at our Briarcliff Manor, New York laboratories invented and developed patented systems that are used to plan travel routes in car navigation systems and on Internet mapping web sites. The same methods have application to robotic movement and to managing escapes from disaster areas. Here again, we see infringing products and upgrades being distributed and exported on electronic media and over the

Internet and again fear the loss of our enforcement rights if section 271(f) protection is reduced.

Some of the other witnesses at this hearing may tell you that the carve-out in proposed Section 271(f)(3) is directed at business method patents and is necessary to prevent their abuse, but the language in Section 10 of the Committee Print is much broader than necessary for that purpose and will create a loophole that will allow software and firmware houses to avoid liability for patent infringement of U.S. patents by exporting their wares as "intangible" e-mail signals and files on master disks with full knowledge that they will be converted to tangible, physical form when received by their overseas customers. At best, the language of Section 271(f)(3) constitutes discrimination which favors the software industry over traditional hardware manufacturers, at worst it will tend to drive the remainder of U.S. electronic hardware manufacturing overseas to countries that do not offer strong IP protection.

The software industry could achieve cost savings by moving its development and production facilities overseas, but it has chosen to remain in the United States and has flourished here, in no small part because the copyright, trade secret and judicial processes in the United States provides strong and effective protection for the intellectual property content of software products. There is no justification for letting them enjoy the benefit of our strong IP system for their own products while, at the same time, they are allowed to avoid exposure to other companies' patents when those same products are exported.

Thank you.

LETTER FROM RYAN M. FOUNTAIN, ATTORNEY AT LAW, MISHAWAKA, INDIANA TO BLAINE MERRITT, CHIEF COUNSEL, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY, COMMITTEE ON THE JUDICIARY

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April 27, 2005

Blaine Merritt
House Subcommittee on Courts, the Internet
and Intellectual Property

Re: Patent Reform Legislation

Dear Mr. Merritt:

It is my understanding that tomorrow the Committee will continue hearings on certain proposals to reform the U.S. Patent laws. I strongly urge the Committee not to adopt a "first to file system" and not to abandon the "best mode" requirement. I would ask you to make these objections known to the Committee and part of the record in its proceedings.

By way of background, I have been a practicing patent attorney for 23 years. I represent a wide range of clients, from multi billion dollar corporations to individual inventors just starting out. I have both written and prosecuted hundreds of patent applications before the United States and foreign patent offices and litigated them extensively in various federal courts.

A First to File Race is Detrimental for the United States

Going to a first to file system would create a serious disadvantage for most smaller businesses and individual inventors starting out to create a business. It would effectively reduce the one year grace period provided to test market the invention that is presently created by 35 U.S.C. §102(b). It would force the business to choose whether or not to spend money on a patent application with less assurance of the value of the patent application than is presently available.

For example, at present the costs of a patent application are a significant expense for these types of business, typically about $10,000 (and with last year's changes in the fee structure of the USPTO, this cost has been going up). Most businesses without an in-house patent staff to write the application will wait for a time to see if the sales of products

using the invention are sufficiently immediate as to justify that expense. For an individual inventor, it may take all his resources to just create a prototype of the invention and he or she will not have extra money for a patent application until the invention is marketed.

A first to file system creates a race to the Patent Office. This race increases the economic pressures on small businesses and individual inventors to spend money sooner and less wisely than they would need to under the present system. The net result, of course, is that many of these businesses would not file patent applications and would not be able to protect inventions, since the expenditure cannot be as readily justified as it can today. Obviously, taking away the potential for a patent tends to discourage the creation of new inventions. Our founding fathers recognized this in the Constitutional mandate for the patent system ("to promote science and the useful arts").

In the long term, the loss of creative incentive in this country would severely hurt the public and decrease our overall quality of life, presently the best in the world. A first to file system is also not in the public administrative interest in that it would urge filing of patent applications prematurely on inventions the need more development or are not really of any market interest, i.e. so called "paper patents." The USPTO does not need to spend its limited resources on those.

Proponents of a first to file system are typically large businesses with an in-house patent staff in industries which are prone to development of the same technologies simultaneously among competitors. However, those same businesses, such as pharmaceutical, semi-conductor and aerospace manufacturers, almost always have in-house patent procedures in place to identify and record the date of invention so as to be able to prove patent priority under the current law. Thus, the conflicts that a "race to the Patent Office" would solve are easily dealt with under the existing interference practice.

The mere fact that there are patent interferences is insufficient reason to change the entire complexion of the US patent system. Compare, for example the very large number of patent applications filed each year (typically over 100,000) with the number of patent applications that end up in interference proceedings (typically less than 500). That would truly be the tail wagging the dog.

The existing patent system is the result of over 200 years of legislative work to balance the long term technological development of our country with the business realities. Our nation was and will continue to be built on the initiative and growth of small businesses. The Fords, Microsofts and Boeings of tomorrow are starting out today, and they still need our help.

Patent law "harmonization" across international borders has been urged to justify changes in our laws like a First to File Rule. However, many of those other nations that

have First to File Rules have totally different economic and technological cultures and different social objectives than we do. Most are looking for rapid and immediate growth to try to get to the quality of life that we already have. They are less concerned with long term prospects. Further, those nations do not have a tradition of individual growth and initiative that result in abundant grass roots creativity. We do, and we should continue to support that culture. It is our future.

The Best Mode Requirement Gives the Public the Benefit of the Bargain

US patent law is almost unique in the world in requiring full and fair disclosure of what the invention really is, how to make and use it in the best way known to the inventor. This is called our "best mode" requirement. That is the essential trade we give inventors: you tell us what you know about the invention and we give you and exclusive right for a limited period of time. After that period of time expires, the public is free to make and use the invention just as well as the inventor can.

In contrast, look for example at a Japanese patent. They are typically written so narrowly that if you do not already know what the invention is, you cannot understand what the application is really teaching. In effect, the patent applicant is disclosing only a minimal amount of information and keeping the rest as a trade secret. That requires anyone wanting to use that technology after the patent expires to incur the expense and time delay of additional engineering and/or experimentation. The Japanese patent laws result in more protection for the patent owner and less opportunity for the public to enjoy that invention from another source even after the patent expires.

Put into the context of our economy, doing away with the best mode requirement would mean, for example, that generic drugs are less available and more costly. Doing away with the best mode requirement would, in effect, reverse the court holdings of cases like Christianson v. Colt Industries Operating Corp., 870 F. 2d 1292 (7th Cir. 1989).

Patent law "harmonization" across international borders has been urged to justify changes in our laws like doing away with the Best Mode requirement. Again, however, different economic and technological cultures and social objectives are involved. In our country we have a large number of competing companies in nearly every industry. Our protection of one company with a grant of patent rights is tempered with the knowledge that in a few years another company can sell the same product to consumers, with the resulting drop in prices to consumers.

In contrast, smaller countries do not have such extensive industrial competition and may consider the real competition to the patent owner to come from a foreign country (like the United States). Thus, it may be in that nation's parochial interest to allow its patent owners to hold back information from the patent application and keep imported competition

at bay or at a higher price. Obviously, that is not in our national interest.

Doing away with the Best Mode requirement is a dramatic change in the substance of the patent bargain. There is no real gain to the public in doing this, only private gain for a few corporate entities.

Thank you for your consideration. If there is any additional information in this regard that I can provide the Committee to aid in its work, please do not hesitate to call me.

Sincerely,

s/Ryan M. Fountain

Ryan M. Fountain