Working Paper

A Great Wall of Patents

China and American Inventors -- Selected Consequences of Proposed U.S. Patent "Reforms"

Prepared For U.S.-China Economic and Security Review Commission By

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Summary

Pirates, counterfeiters and competitors from nations with weak intellectual property protections are taking technologies from unprotected patent applications that the U.S. Patent and Trademark Office (USPTO) is required to post on the Internet.

Japan's Patent Office, which does the same type of postings, finds that their applications are being examined 17,000 times daily from China and 50,000 times daily from Korea.

Current proposals for patent "reform" would weaken protections for U.S. patent holders and extend the time periods required for patent examinations.

Claims of a patent "litigation crisis" are without merit. The per capita number of lawsuits per patents issued has been declining since 1990. The likelihood that a patent will be involved in a trial is 1/2,000th of one percent. Each year, fewer than 100 patent lawsuits will result in a trial. Of the 3,075 patent lawsuits filed in 2004, federal court data reveals that litigants will settle almost 97 percent before reaching a trial.

Three real patent crises do exist. (1) Foreign pirates and counterfeiters, particularly from China, are costing U.S. intellectual property owners roughly \$50 billion per year. The USTR claims that it cannot get sufficient evidence to file intellectual property cases at the WTO, largely because U.S. victims are fearful of reprisals. (2) Patent pendency rates are nearing the 30-month level and increasing. Today, the USPTO has a warehoused backlog of more than 500,000 patent applications. The fastest way for the U.S. to introduce newer and better technologies is hire more patent examiners and by that speed the patent examination process. (3) The 18-month rule is allowing the hemorrhaging of proprietary U.S. technology (military and commercial) to global pirates, counterfeiters and competitors. A principal beneficiary of this is China.

Traditionally, large U.S. corporations have attempted to weaken patent protections for individual inventors, small companies and academics. Historically, these large entity patent holders have been unaffected by shortening patent terms and weakening patent protections. With the advent of advanced technology competition from China and others, both large and small entity U.S. IP holders are harmed by any weakening of U.S. patent protections.

A Trip to China

Beginning in April 2005, the *Yomiuri Shimbun*, one of Japan's major national newspapers, published a 21-part series on the major economic problems in the China-Japan relationship.¹ The series recounted a July 2004 trip by Yoichi Gotani, Director of Japan's External Trade Organization's Intellectual Property Rights Beijing Office, to the executive offices of the Haier Group, the largest consumer-electronics maker in China.

The head of the Haier's intellectual property unit told an amazed Gotani, "Using several dozen computers, we've searched for patent applications submitted to patent offices in Japan, the United States and European countries to obtain useful information to develop our products. Thanks to that, our company spends only a small amount of money on research."

Upon his return to Tokyo, Gotani told officials in Japan's Patent Office what he had learned, and they began to monitor the number of times that Internet users from China and Korea looked at applications then under consideration in the Japan Patent Office. The count for China was 17,000 hits a day. More than 55,000 inquiries daily came from Korea.

As to legality, the Chinese business executive told Gotani that since most of the U.S., Japanese and European inventors "don't usually apply for patents in China, there's nothing illegally wrong in us using them."

Using that same logic, Chinese pirates and counterfeiters are now defending themselves with a new technique called "A Great Wall of Patents."² The process is simple. Chinese counterfeiters are filing for patents in China for the products they are copying. Most often, they make their applications using drawings and descriptions they take from the patent offices Internet sites in the U.S., Europe and Japan. <u>The International Herald Tribune</u> reports that these Chinese patents are often modifications of the original.

With Chinese patent in hand, the counterfeiter or pirate is then prepared to contest foreign claims of infringement in the Chinese courts. China's legal appeals are so time-consuming that the infringer can operate for years without worry of an injunction, decision or penalty.

As the use of Great Wall of Patent technique spreads in China, some of the more audacious counterfeiters are suing foreigners for violations of their Chinese patent, including suing those who created the innovation in the first place and own the intellectual property rights elsewhere.

An Unanticipated Consequence

Gotani's experience with the Chinese mining of foreign patent applications is an eye-opening example that intellectual property rules are a technically complex area in which the smallest changes of law or regulation can create tidal wave effects on innovation and innovators. The fact that Chinese companies have the ability to copy paperwork from patent applications of other nations with such ease and on such a massive scale is an unintended consequence of one such change.

In the global trade negotiations (1986-1994) that resulted in the creation of the World Trade Organization (WTO), the major industrial nations formed a new global agreement on patents, copyrights, trademarks and trade secrets called the Trade-Related Aspects of Intellectual Property Rights (TRIPS). As part of that pact, all WTO member nations agreed to publish the contents of patent applications 18 months after the inventor filed for protection. The U.S., Japan and Europe make those applications available to the world via the Internet.

Congress requires the U.S. Patent and Trademark Office (USPTO) to publish a patent application on the Internet 18 months point from its filing, even when no patent has been issued. Publication of the details of an application while under review is a radical departure from practices used by the Patent Office in the prior two centuries of operations. Then, the USPTO had a strict responsibility to protect the secrets of an inventor's patent application. The 18-month rule is particularly pernicious because the USPTO now takes an average of 27.6 months – the pendency rate – to review a patent application.³ Technical patents require even more time. For communications and computer-related inventions, for instance, the examination and processing take an average of more than 40 months. In the period between the 18-month point and the time the USPTO makes a decision, anyone on the Internet can inspect the details of the patent application while the inventor does not yet have the protection of a patent.

This time gap creates a special opportunity for Chinese counterfeiters to use the Great Wall technique. In the United States, a patent goes to the first person to invent. In China, as with all other nations, the patent office issues the patent to the first person to file an application. The burden of proving that the Chinese patent seeker stole the idea can take years and cost hundreds of thousands of dollars in legal fees. If the Chinese patent holder makes a few modifications in the application, that burden is even more difficult.

The volume of U.S.-owned technological secrets made available to the world under the auspices of the WTO's 18-month rule is enormous. In 2001, the first year of such patent publications, the U.S. Patent and Trademark Office put 25,000 patent applications on the Internet. In 2002, the number was 169,000, and in 2004 it was 248,000.⁴

There is an exception to the 18-month rule. In the battle over legislation to implement TRIPS in the United States (1999), Congress enacted a provision that gives inventors a choice: If they promise not to seek a patent outside of the United States, the USPTO will keep the details of their patent application under the strictest secrecy until its examiners have granted or denied a patent. If the Patent Office denies a patent grant, it will still maintain the confidentiality of the application and the inventor can then use the innovation as a trade secret. Approximately ten percent of all U.S. patent applicants use this exception.

The other ninety percent take a major risk – if the USPTO does not grant them a patent, they are unable, as in the past, to protect their

innovation as a trade secret. The risk associated with such publication of patent information is high because the USPTO denies patents to almost one-third of all applications.⁵ In other words, the 18-month rule forces the USPTO to reveal tens of thousands of potential trade secrets each year, which the rest of the world can use royalty-free.

One consequence of this enforced sharing of details is that many inventors now refuse to file for a patent. Rather, they are keeping their innovations as trade secrets. This, of course, defeats the basic purpose of a patent, which is a "golden covenant" between society and creative people that says, "Share the details of this innovation and society will give you the exclusive right to its use for a set number of years."

Few innovators with a major creation are willing to limit their patent protections to just the United States. Also, a growing number of inventors refuse to apply for a patent which will prematurely reveal the details of their inventions to a world filled with counterfeiters and pirates. The long-term result, if the present situation continues, will be less sharing of knowledge, the very purpose for which society grants patents.

The principal champions of the 18-month publication rule were the governments of Europe and Japan and the transnational corporations of those nations and the United States. Their reason is simple: big businesses in Japan and Europe work closely with their governments, often forming legal technology cartels. While such cartels are generally illegal in the United States, they often exist. The most basic threat to the cartels' anticompetitive practices is not from legal authorities but from some lone inventor, academic researcher or small company that might entirely revolutionize a field with a new invention that the cartels cannot thwart – the process of creative destruction.

Judge Howard Markey, the first Chief Judge of the Federal Circuit, the court that hears patent appeals, wrote of this:

Many giant corporations have no need of a patent system. They may obtain patents, but only as a defense against some little machine shop operator who might otherwise invent and patent something the public would demand, and the big corporation would have to negotiate for, instead of adding the item to its product line. Many large corporations should be glad to compete on size, nationwide service, high volume, strong finance and prompt delivery. They can kill off smaller competitors on any of these bases, unless the small competitor has a patent on a product somebody wants to buy.⁶

As Markey suggests, patents are vital to independent inventors, small companies and academics. If legal protections are strong, these "small entities" can defend themselves in the federal courts against predation by larger, richer competitors. Strong legal patent protections also allow these entrepreneurs to raise money on their patents. Some eventually become worldwide competitors. Dell, Apple, Oracle and Microsoft are a handful of many such recent examples of this process at work.

To reduce the threat from "small entities," the "larger entities" regularly propose a host of changes in patent law designed to weaken U.S. patents – changes they and their surrogates represent as "reforms." The 18-month rule is one of those "reforms." The big entities, with much help from the Japanese and European governments, pushed the idea into law as a way to get an early peek at the innovations of the small entities.

To sell the 18-month rule to Congress, advocates raised from the dead an old "problem" that the new regulation would supposedly solve. They argued that some inventors were deliberately delaying the Patent Office's examinations, thereby keeping their patent applications "submerged" until a corporation did something that violated one of the patent's claims, at which time the inventor would "surface" the patent. Japanese patent officials invented a clever name for this --"submarine patents" – a tag that implied unscrupulous inventors were lying in wait to launch a sneak attack. The solution proposed by the larger entities to stop independent inventors from victimizing unsuspecting corporations with "submarine patents" was the early publication of all U.S. patent applications.

In the mid-1990s, the Commissioner of Patents testified before Congress that between 1971 and 1993 the USPTO could classify only 627 patent applications out of 2.3 million as submarine patents. At least a third of those patents were U.S. government military secrets, leaving only about 400 that came from the private sector.⁷ To deal with those and prevent the creation of more, the Patent Office in the late 1970s established a tracking system to prevent submarine patents, and the USPTO has not issued one since then.

Nonetheless, the big entity advocates pushed the 18-month rule into law in 1999. What these corporations did not consider was the rise of China, India, Korea and other developing nations as technological superpowers. Ironically, the disclosure system they advocated as a means of getting an early peak at the inventions of the small entities also made their own most precious secrets available to the pirates, counterfeiters and competitors in China, India and other developing countries, where secrecy is the only protection against IP theft.

Those developing powers are as interested in the emerging technology of the large entities as they are the small ones. Moreover, the large entities are as powerless against the governments of China and India as the small entities are when pitted in opposition to them. Thus, the 18-month rule is proving to be of incalculable value to China and India at the expense of both large and small entity inventors in the United States, Japan and Europe.

Kenji Hidaka, Director of Japan's Patent Planning Strategy, said of the 18-month rule, "Japan's precious technologies, about which inventors normally don't want to disclose the details publicly, have been leaked through a system that is supposed to protect their intellectual assets." As a result, he concludes that the intellectual rights that constitute Japan's national power are now widely under threat. The same leakage represents no less a menace to the United States and nations in Europe.

"Situational" Patent Rights

The U.S. Constitution provides that "Congress shall have the power to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The hope is that by giving the author or inventor a property right for a limited time, while also making public the creation's most intimate details, the general state of knowledge will be advanced.

The elegance of this Constitutional provision is in the flexibility it gives Congress to adjust U.S. intellectual property laws to meet new and changing circumstances. The intrinsic danger is that the "rights" the provision confers are undefined, a task left to Congress, which thereby renders them less than absolute, both for creators and consumers. Instead, those rights are "situational" in nature, varying over time as Congress may decide.

Inherent in such a system of politically-set rights are three everevolving Congressional obligations:

The first is to determine which types of innovations merit a patent, under what conditions and for what period. Over the past two centuries, Congress has repeatedly expanded the list of such creations for which the USPTO may issue a patent and the duration of the protection.

The second is to ensure that changes in the patent laws and regulations equitably affect small and large entity inventors. Like a force of nature such as gravity, big entities seem to always try to gain advantage by urging Congress to weaken the patent protection of small entities.

The third obligation is to secure protection for U.S. intellectual property owners in other nations. Patent laws are set country by country. Stealing the creations of others as a means of national development has a long and unsavory history that continues into the present. In such circumstances, American IP owners must ultimately depend for their protection on the U.S. government.

Ultimately, the patent protections offered under the U.S. Constitution are the foundation of America's technological greatness. They have provided sufficient protections and incentives for a long enough period to allow creative people to take patented concepts, raise monies, enter production and create entire industries. The process has worked because the intellectual property owner had a constitutional right of private action against infringers and the means of defending that right in the federal courts.

The patent systems and rights of Japan and Europe are much less rigorous than those of the United States. Not surprisingly, those governments advocate a harmonizing of systems, which to them means reducing U.S. standards to theirs, not the reverse. Harmonization of the three systems may be desirable. The question for Congress is whether to harmonize the U.S. patent system down to the standards of other nations or urge them to raise theirs' up to those of the United States.

Having a more harmonized system is desirable, but not if it weakens U.S. inventors' patent rights.

A False Crisis

Over each of the past three decades, large entity patent holders have mounted major political campaigns in Washington to change U.S. patent protections. These efforts' distinguishing characteristic is that they try to strengthen protections of IP holders in the developing nations and weaken them in the United States. The political and economic logic is simple: the large entities benefit from having stronger IP rights in other nations, where such rights are weak. They benefit by cutting the protections for small entity competitors in the U.S., where such rights are strong.

In the 1990s, the "reform" effort focused on "submarine" patents, a non-existent problem that was never-the-less "resolved" by requiring the USPTO to publish patent applications under the 18-month rule. Today, the large entity patent holders and their representatives are attempting to replicate the success of that campaign with two new crisis claims.

The first claim is that the U.S. is in a "patent litigation" emergency – that is, a flood of lawsuits with little or no merit is threatening the innovation process.

In fact, publicly available data reveals the U.S. does not have a patent litigation crisis. Indeed, the data makes clear that the threat of lawsuits for most inventors is actually diminishing.

The real litigation threat is to a handful of large corporations whose business models rely on the aggressive, unapproved and uncompensated use of the patented works of others. The owners of that intellectual property are suing these large companies and winning large awards. In appeal, the courts are upholding these awards as valid. Now, a handful of these large entity patent holders have banded together and are trying to achieve through legislation what they cannot get in the courts – easier access to the IP of others, at a lesser cost and with fewer penalties.

Federal judicial caseload statistics for patent lawsuits and USPTO data on patent applications and patents issued reveal:

- An inventor is less likely to be involved in a patent suit today than in the past. As Table 1 reveals, the number of patent lawsuits filed per the number of patent applications filed has been on a downward slope since 1990. (Table 1)
- Likewise, the number of patent lawsuits filed per the number of patents granted by the USPTO has also declined even greater almost 13 percent between 1988 and 2004. (Table 1)
- Only 5/10,000 of one percent of patents issued is challenged in a patent trial.⁸
- In 2004, more 28 percent of patent lawsuits settled with no court action required.⁹
- In 2004, more than 53 percent of patent lawsuits settled before pretrial.¹⁰
- In 2004, more than 14 percent of patent lawsuits settled during or after pretrial.¹¹
- In 2004, only 96 patent cases went to trial, which represents only 3.5 percent of all patent cases filed that year¹².

Put into context, the number of patent lawsuits that went to trial during the period 2001 to 2004 rose from 76 cases to 96. (Table 2)

In sum, fewer than 100 patent trials a year is not a patent litigation crisis – particularly in a nation that issues almost 200,000 patents annually and where litigants settle almost all patent lawsuits before trial.

A second "crisis" being promoted by advocates of patent law change is that the USPTO is issuing patents of deteriorating quality. In its 2004 report, **A Patent System for the 21st Century**, the National Academy of Sciences examined that issue and reported that despite many such claims of poor quality patents, "Nevertheless, the claim that quality has deteriorated in a broad and systematic way has not been empirically tested."¹³

A reliable way to measure patent quality is to review how patents fared when challengers contested their validity in a neutral forum. To reduce the cost of litigation, the USPTO allows third parties to challenge patents under an *ex parte* or *inter partes* procedure.

The *ex parte* route, created in 1980, allows a third party to submit materials to the USPTO for the USTPO to consider in a reexamination. The challenger cannot otherwise participate in the process. The idea is that once the USPTO sees that it has made a mistake, its examiners are honest and competent enough to correct it.

The USPTO reports that third parties challenged only 441 patents in 2004 through *ex parte* reexaminations.¹⁴ Moreover, the USPTO reports that 166 of those were by patent holders seeking a correction or change in claims. The history of this process is that roughly six out of ten times the USPTO reexamination affirms the validity or partial validity of the patent.

The *inter partes* route, created in 1999 and liberalized in 2002, goes much further. It allows the challenger to participate in the reexamination process, gives them the right to appeal decisions to the U.S. Circuit Court of Appeals for the Federal Circuit and, if they win to participate in the patent owner's appeal to that Court.

Currently, if the third party is unsuccessful in the *inter partes* examination and subsequent Court appeal, they are forever prohibited from later asserting in any civil action or subsequent *inter partes* reexaminations the invalidity of the challenged patent claim.¹⁵ As to *inter partes* reexaminations, challengers filed only 27 requests for such reviews in 2004.¹⁶

Seemingly, most challengers prefer having their case heard by a jury or judge as opposed to trained patent examiners.

The low number of *ex parte* and *inter partes* challenges, the declining number of lawsuits filed per number of patents issued and the fact that only a tiny handful of patent lawsuits go to trial, strongly suggest the USPTO is issuing patents that can stand a vigorous, well-financed challenge in the crucible of an adversarial proceeding.

A variant of the quality claim is that the USPTO is issuing patents for absurd creations. The Internet has several sites where examples of such "goofy" patents are displayed, including an umbrella for dogs, a headband that includes "deer ears," horse diapers, a fish bath, a motorized ice cream cone and a smokers hat, among dozens of others. Most often, these are vanity patents. Few will lead to the commercial success of other seemingly "goofy" creations such as the Hoola-Hoop, the Slinky, Frisbee or the propeller hat. Few, if any, of these patent holders will ever use these patents to mount a lawsuit against large entity patent holders. Moreover, Microsoft, IBM or Oracle is unlikely to ever be in the business of producing horse diapers or deer ears. Yet, the applicants for these patents pay their fees and are as entitled to their vanity patents as Edison was to his more substantial creations.

Again, as with the submarine patent "crisis" of the 1990s, today's litigation and quality "crises" are merely the political and public relations cover stories for the attempts by other governments and large entity patent holders to alter the U.S. patent system in ways that will favor their interests at the expense of independent inventors and other smaller entities.

And once again, these attempts warrant my repeating that these efforts are short-sighted because the Chinese and other developing nations benefit greatly from cheapened U.S. IP protections, regardless of whether the intellectual property owner is a large or a small entity holder.

Current "Reform" Proposals

The Patent Office divides patent seekers into two groups for purposes of assessing fees. The "small entities" group consists of individual inventors, companies with fewer than 500 employees and academic innovators.¹⁷ They get a reduced patent fee. Large entities (501 people or more) pay higher fees. All these patent fees are devoted to financing the operation of the USPTO.

Because of the data collected on the differentiated fees, the USPTO knows much about those who apply for and get patents. A most significant piece of information is that 45 percent of patents go to the small entities, with the large entities comprising the balance.

Contrary to repeated assertions, the individual inventor, the innovative academic and small businesses remain major contributors to America's technological advance. To hamper their creativity and entrepreneurship risks retarding U.S. technological progress.

Not surprisingly, most proposals for patent "reforms" come from the large entities, the trade associations they finance and the public policy organizations they lead and support.

These "reform" proposals have three basic characteristics -(1) they seek to cut the patent term; (2) they seek to give the world a look at a patent application before the USPTO grants patent protections; and (3) they seek to weaken the legal remedies and damage awards now available to small entity patent holders.

The most historic cut in the patent term came in 1994 when Congress adopted WTO implementing language and set the U.S. patent term at 20 years. Historically, the United States gave inventors a patent term of 17 years from the date the USPTO issued the patent, regardless of how many years the USPTO took for its examination. Now, however, if the USPTO consumes, say seven years in the examination process before it issues a patent, the inventor only gets an effective patent term of 13 years (20-7 = 13).

When Congress enacted the North American Free Trade Agreement (NAFTA) in 1993, it changed the U.S. patent term to twenty years from the date of filing <u>or</u> 17 years, whichever period is longer. The <u>minimum</u> patent term set by TRIPS as part of the World Trade Organization treaty is 20 years from filing, but any nation can set a higher term as the U.S. did in the NAFTA treaty. In 1994, however, the large entity advocates persuaded Congress to drop the NAFTA formula and adopt the TRIPS <u>minimum</u> – twenty years from filing. The difference between the period set under the NAFTA agreement and under the TRIPS minimum, coupled with rising pendency rates at the USPTO, has created a significant loss of protections for American inventors.

As the NAFTA/WTO experience suggests, large entities want a global harmonization of patent laws and regulations. Since most of these corporations operate in the U.S., Japan and Europe, they want a patent issued in Europe or Japan to be honored in the United States and visaversa. This will permit jurisdiction shopping.

To make everything equal, the large entities are urging the U.S. to adopt patent procedures now used in Europe and Japan. The fact that such actions will weaken certain U.S. protections is of far less consequence to them than it is to the small entities for which individual patents are a life and death matter.

High up on the list of proposed changes to U.S. law is one to alter the two-century long procedure used in the United States from awarding the patent to the first-to-invent to awarding it to the first-to-file – the person who gets to the Patent Office fastest. Every nation but the United States uses the first-to file-rule. The U.S. also has the world's strongest patent protections.

While the first-to-file approach simplifies decisions for Patent officials, it creates other problems. With such procedures, a Chinese counterfeiter can take a patent application off the Internet, slightly modify it, be the first to arrive at China's Patent Office (or that of many other nations) and get the patent on the creation. If the U.S. adopts such a change, the inevitable result will be a premature rush to the USPTO with applications of far less quality than are now submitted. Equally inevitably, the number of U.S. lawsuits will increase as will the workload of Patent Examiners. The result will be more uncertainty, more lawsuits, a greater workload at the Patent Office and longer periods before the USPTO issues or denies a patent.

Another proposal is that the United States take on through legislation an administrative procedure, modeled on that of Europe, that will allow the challenge of issued patents by anyone in the nine months following its issuance. The patent owner would have six months to respond and administrative judges, operating out of the USPTO, would render a decision. This new court would permit discovery as well as the use of witnesses in a quasi-trial.

Present mechanisms, however, already allow reexamination of patents. The *ex parte* and *inter partes* procedures, as described earlier in this paper, offer cost-effective alternatives to lawsuits. What the advocates of this new judicial procedure are striving for is a way to litigate outside of the U.S. federal court system with all its established rules and precedents, while preserving their right of appeal to the U.S. Court of Federal Appeals if they lose. If adopted, this will result in more rather than less litigation and higher rather than lower legal costs.

Large entity advocates are also urging elimination of the publication exemption provided applicants whose patent is limited to the United States. If adopted, the USPTO would be required to publish all patent applications at the 18-month point after submission.

The large entities also particularly want to tighten, or eliminate altogether, standards used by U.S. federal courts to measure "willful infringement." Under existing rules, claimants can collect treble damages if the infringer did so willfully. Today, numerous major corporations knowingly use the patented technology of others, particularly small entities, figuring that if caught they can either prolong court proceedings, bankrupt the IP owner or make a settlement that would cost less than licensing the technology in the first place. Treble damages for such willful infringement can yield painfully high damage awards and as such be a great deterrent to such aggressive business practices – the very reason that Congress created such a provision in the first place.

The Real Patent Crisis

While the "litigation" and "quality" crises are false, the United States does have a patent emergency. It has three dimensions:

First, foreign pirates and counterfeiters are flagrantly stealing the creations of U.S. IP holders. The cost to U.S. IP holders exceeds \$250 billion annually. China is the worst offender, though not the only one. Under the provisions of the World Trade Organization, the United States has the right to bring a case against China for failing to provide adequate IP protections. The authority to bring such cases resides with the Office of the United States Trade Representative (USTR). However, that Office has not brought a single IP case before the WTO since 2000, preferring to use diplomacy instead. During this time, the level of foreign pirating and counterfeiting has risen sharply.

Recently, Congress has earmarked funds to fund a WTO IP case against China. The Office of the USTR has examined the issue and reports that it cannot bring a case because of insufficient evidence. Apparently, U.S. businesses are afraid of retaliation if they supply such information to the U.S. government.

Fortunately, sufficient evidence exists that China and other nations are not meeting their treaty obligations under the WTO to provide IPR protections for foreign holders. Congress can ask other agencies to collect this evidence and organize it into a suit the USTR can win at the WTO. I recommend that Congress do so.

Second, the time to process U.S. patent applications is lengthening each year, reflecting inadequate staffing. A decade ago, the pendency rate was 18 months. In 2000, it was 25 months. In 2004, it was 27.6 months. A rate of 30 months is likely in 2006. Because of these ever-lengthening exam times, a massive backlog of unexamined patent applications, stored in warehouses, is mounting. The backlog exceeded 500,000 applications at the beginning of 2005 and is likely to be close to 600,000 by January 2006. In an era of fast paced global change and intense technological competition, America needs the best of these technologies in the marketplace sooner rather than later.

Today, the lack of patent examiners – enough adequate to the challenge of cutting the pendency rate to a year or less -- is a major choke point on U.S. technological development. The cost of even doubling the number of existing examiners (Approximately \$1.5 billion annually) is insignificant in the context of eliminating a backlog of 500,000 applications and then reducing by two years or more the wait before the USPTO can patent new technologies. The existing costs of delay are enormous.

Third, the 18-month rule is allowing foreign pirates and counterfeiters, often with the assistance of their governments, to steal the creations of American IP owners. Today, more than a quarter million U.S. patent applications are up on the Net for anyone's examination. A number of actions seem appropriate, but most important Congress should legislatively eliminate the 18-month rule as soon as possible.

In the interim, the USPTO can take a number of useful intermediate steps. A high-priority action is for the USPTO to monitor its web servers and ascertain who is scrutinizing which U.S. patent applications. USPTO should publish this data on its site, updated daily. Simultaneously, the USPTO should inform patent applicants by e-mail who has examined their patent request.

Finally, as advocated by Ronald J. Riley, President of the Professional Inventors Association, nations that are identified as sources of flagrant piracy and counterfeiting in the USTR's annual Special 301 reports should be denied Internet access to U.S. patent applications until such nations reform their ways.

Conclusion

With the emergence of China, India and other developing nations as technology-seekers, the U.S. Congress must consider how any proposed changes in U.S. patent or other intellectual property laws might be used by pirates and counterfeiters in those nations to steal innovations owned by Americans. Many patent "reforms" now under consideration will harm the U.S. technological position. The 1999 changes in patent law have already resulted in shorter patent terms for U.S. inventors and given foreign competitors, pirates and counterfeiters a bonanza of proprietary information.

The USPTO should be required to hold in absolute secrecy the details within a patent application until it issues a patent. Equally important, the USPTO should be obligated, as in the past, to protect the secrets contained in patent applications that it denies, allowing those applicants to use their creations as trade secrets. Notes

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¹ *Yomiuri Shimbun*, "Japan's System of Registering IP Obsolete," Reported in Sinchew.com, July 6, 2005.

² *International Herald Tribune*, "Pirates file patents to beat the system: The new Chinese counterfeit game," reported by Brad Spurgeon, November 15, 2004.

³ Performance and Accountability Report: Fiscal Year 2004, USPTO, Table 4, p. 119.

⁴ Ibid, Table 1, p. 116.

⁵ Ibid.

⁶"Some Patent Problems --Philosophical, Philological, and Procedural 80 F. R. D. 203, p. 210

⁷ Hot Property, Pat Choate; Knopf, 2005.

⁸ Calculated from data contained in **Federal Judicial Caseload Statistics**, 2004, Table C-4 and **Performance and Accountability Report: Fiscal Year 2004, Table 1**, p. 116.

⁹ Calculated from data contained in **Federal Judicial Caseload Statistics, 2004,** Table C-4.

10 Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ **A Patent System for the 21st Century**, National Research Council of the National Academies, p. 48.

¹⁴ **Performance and Accountability Report: Fiscal Year 2004**, USPTO, Table 13, p. 129.

¹⁵ Report to Congress on Inter Partes Reexamination, USPTO, December 20, 2004.

¹⁶ Ibid.

¹⁷ Patent Rules, USPTO.