IDEA: The Journal of Law and Technology

2000

40 IDEA 393

PATENT FLOODING IN THE UNITED STATES AND JAPAN

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I. INTRODUCTION

In a technology-driven, global economy, innovation plays a key role in market access and competition. Particularly for small companies, innovative technology opens the door to domestic and international markets and represents a way to compete with larger and more well-established firms. Yet today's innovations can be reverse engineered and copied by tomorrow competitors. For an actor in the global marketplace, having and keeping the exclusive right to its innovative technology is a significant competitive advantage. As a result, worldwide patent protection has become critical to global competition and market access. Hard earned patent rights, however, can be stripped away by competitors who engage in "patent flooding."

Patent flooding has been described as an approach to patent claiming in which the patent flooder files many patent applications that claim minor or incremental variations on technology developed by another, the target company. The goal of the patent flooder is to surround the target company's technology with patents and patent applications, so that the target company cannot commercially exploit its technology without the risk of infringing the flooder's rights. The flooder may not be able to exploit its claimed inventions without running afoul of the target company's patent rights, but neither can the target company exploit its own technology without the risk of infringing on the flooder's claims to variations and uses of that technology. The flooder uses this "gridlock" to negotiate a license to the target company's technology, offering in return licenses to technology claimed in the flooder's patent applications and patents.

Patent flooding is said to have originated in Japan. Although particularly effective in the context of the Japanese patent system, patent flooding is not limited to Japan. Indeed, the evidence suggests that patent flooding is taking place in the United States. This article describes patent flooding as used in Japan, discusses the features of the Japanese patent system that make patent flooding particularly effective, describes the pertinent differences between the patent systems of the United States and Japan, and reviews the use of patent flooding in the United States. In the process, this article attempts to better define patent flooding and considers whether patent flooding, properly understood, is lawful in the United States.

II. PATENT FLOODING IN JAPAN

A study by the U.S. federal government has described patent flooding as a technique in which one company files a multitude of "patent applications claiming minor, incremental changes" to the core technology of another company.40_IDEA_393)_and_footnotes(n1);.FTNT n1 Others have described patent flooding as an "offensive use" of the Japanese system's narrow interpretation of patent claims.40_IDEA_393)_and_footnotes(n2);.FTNT n2 The flooder "surrounds" a competitor's patent or technology with "new, limited innovations,"40_IDEA_393)_and_footnotes(n3);.FTNT n3 so that over time, the competitor finds itself "unable to maneuver."40_IDEA_393)_and_footnotes(n4);.FTNT n4

The patent flooder's applications typically cover basic uses of the target company's technology. The target company cannot exploit these basic uses of its own technology without the risk of infringing on the intellectual property rights of the patent flooder. The target company is put in the position of asking the patent flooder for a license to use technology that the target company invented in the first place. The patent flooder may be willing to grant such a license, but will likely demand, in return, a cross-license which permits the patent flooder to use the target company's technology. In this way, the target company is stripped of the exclusive rights to its own technology, and the patent flooder obtains rights to the target company's technology.

Patent flooding is said to have originated in Japan.40_IDEA_393)_and_footnotes(n5);.FTNT n5 Some have described patent flooding as an outgrowth of the Japanese patent system's preference for small, incremental steps rather than dramatic, individual breakthroughs.40_IDEA_393)_and_footnotes(n6);.FTNT n6

The patent flooding strategy fits perfectly within the Japanese system's recognition of incrementalism. Progress comes through the continuous efforts of many inventors, and so -from the systemic standpoint -- allowing patent flooding is efficient. It provides an incentive to develop small, yet useful, changes. Of course, other patents may soon surround these patents as well. In the United States, such a system would result in a kind of gridlock. In Japan, the traffic continues to move, perhaps even faster than before. . . . Japanese companies, whether the flooders or those flooded, almost always enter into a cross-licensing agreement in which all the technology holders enjoy the right to make use of all the patents.40_IDEA_393)_and_footnotes(n7);.FTNT n7

The goal of a patent flooder is to obtain rights to a competitor's technology.40_IDEA_393)_and_footnotes(n8);.FTNT n8 As a result, the more important and valuable the technology, the greater the likelihood that that technology will be the target of a patent flood. Technology that represents a valuable breakthrough in a given field is the most likely target of patent flooding.40_IDEA_393)_and_footnotes(n9);.FTNT n9 Patent flooding might best be described by way of an example.

One of the first to describe patent flooding was the head of Fusion Systems, a small Maryland company that was the target of a patent flood launched in Japan by the industrial giant, Mitsubishi.40_IDEA_393)_and_footnotes(n10);.FTNT n10 In the early 1970's, Fusion Systems achieved a technological breakthrough in the area of high intensity ultraviolet lamps powered by microwave energy.40_IDEA_393)_and_footnotes(n11);.FTNT n11 These lamps could be used, for example, to dry printing ink on nonabsor-bent surfaces such as metal, glass or coated paper.40_IDEA_393)_and_footnotes(n12);.FTNT n12 Fusion sought patent protection in the United States, Europe and Japan on "the truly innovative elements" of this technology,40_IDEA_393)_and_footnotes(n13);.FTNT n13 and entered the Japanese market in 1975.40_IDEA_393)_and_footnotes(n14);.FTNT n14 In 1977, Fusion's product drew the attention of Mitsubishi.40_IDEA_393)_and_footnotes(n15);.FTNT n15 Mitsubishi purchased a Fusion lamp system and reverse engineered it.40_IDEA_393)_and_footnotes(n16);.FTNT n16

By the end of 1977 Mitsubishi was filing the first of nearly 300 patent applications targeting Fusion's core technology.40_IDEA_393)_and_footnotes(n17);.FTNT n17 Fusion found that the Mitsubishi patents fell into three categories: 1) those that simply claimed Fusion's technology; 2) those that claimed, in connection with Fusion's technology, subject matter that was already well known in the art; and 3) obvious variations on Fusion's technology.40_IDEA_393)_and_footnotes(n18);.FTNT n18 In exchange for not asserting its rights against Fusion Systems in Japan, Mitsubishi demanded a "royalty-free, worldwide cross license to all of Fusion's technology."40_IDEA_393)_and_footnotes(n19);.FTNT n19

A. Launching a Patent Flood

At the outset, the patent flooder must select the technology that will be the target of the patent flood. The flooder may become aware of the target technology in a number of ways. The flooder may become aware of the target technology by scanning issued patents or published patent applications,40_IDEA_393)_and_footnotes(n20);.FTNT n20 or by attending trade shows or technical conferences where the latest technological innovations are displayed. The patent flooder may also target technology which was developed by one of its equipment suppliers, customers, or business partners, and disclosed to the flooder during business or technical discussions.

Once a target technology is identified, the flooder files numerous patent applications designed to surround the target company's technology. 40_IDEA_393)_and_footnotes(n21);.FTNT n21 This technology may represent the core of the target company's intellectual property.40_IDEA_393)_and_footnotes(n22);.FTNT

n22 The flood of applications will try to claim the most popular uses or embodiments of the target company's core technology.40_IDEA_393)_and_footnotes(n23);.FTNT n23

The patent flood initially creates confusion in the market place as to who has rights to the various aspects of the target technology.40_IDEA_393)_and_footnotes(n24);.FTNT n24 When two or more companies have filed patent applications covering the same technology, third parties considering purchasing products covered by the patent applications, or licensing the technology covered by the patent applications, will not know which company has a legitimate claim to the technology.40_IDEA_393)_and_footnotes(n25);.FTNT n25 This confusion can often force potential customers and licensees to wait on the sidelines until the issue is resolved.

A well-executed patent flood creates not only confusion, but, also risk.40_IDEA_393)_and_footnotes(n26);.FTNT n26 Under Japanese law, damages for patent infringement begin accruing once the unexamined patent application is published.40_IDEA_393)_and_footnotes(n27);.FTNT n27 If the application matures into a patent and infringement is shown, the applicant can reach back in time to recover damages for "infringement" that took place from when the unexamined application was published.40_IDEA_393)_and_footnotes(n28);.FTNT n28 Given the number of years that can elapse between publication and patent grant, the period during which damages accrue can be very long and the amount of damages very large.

There are two ways in which the confusion and risk created by patent flooding can be used to threaten the target company. First, the patent flooder can threaten to sue the target company's potential customers and business partners for infringement, if they use the target technology. Because of such threats, the target company's potential business partners may refuse to deal with the competitor. The target's potential customers and business partners may demand that the target company provide indemnification from any allegation of infringement by the patent flooder or demand reductions in price or other business concessions. Second, the patent flooder can threaten the target company itself with suit for infringement.40_IDEA_393)_and_footnotes(n29);.FTNT n29 These threats may force the target company into a cross-license agreement, or force the target company to restrict its exploitation of the target technology in order to reduce its potential liability for infringement damages.40_IDEA_393)_and_footnotes(n30);.FTNT n30

B. Responding to a Patent Flood

The target of a patent flood has few palatable options. The target company can license away its valuable inventions in order to avoid a fight.40_IDEA_393)_and_footnotes(n31);.FTNT n31 Or the target can fight back by challenging the flooder's applications wherever possible and defending infringement claims brought by the flooder. The first option means giving away the valuable technology which may be the competitive edge that made market participation a possibility in the first place for some companies.40_IDEA_393)_and_footnotes(n32);.FTNT n32 The second option means long, expensive, and distracting legal battles.

The target of a patent flood is in a precarious situation. The target company has no way of knowing which, if any, of the flood of patent applications will be pursued through

examination. The target has no way of knowing which examined applications will mature into issued patents, or which of those patents will cover the target company's technology. The target company can either buy a measure of peace by giving up valuable competitive advantages, or else wait up to ten years or more to see what the issued patents look like, and hope the published applications will not, in the interim, scare away all of its customers. If the target company is lucky, none of the patents that result from the flood of patent applications will hinder the target company's business. Either the applications will not mature into patents, or the resulting patents will not cover necessary or commercially popular aspects of the target company's technology. In such a case, the target company can hope that it will fare as well when the next flood comes.

C. The Impact of a Patent Flood

The patent flooder typically uses its flood of applications to extract licenses or other business concessions from the target company.40_IDEA_393)_and_footnotes(n33);.FTNT n33 One technique is to offer the target company a cross-license arrangement.40_IDEA_393)_and_footnotes(n34);.FTNT n34 Under such an arrangement, the patent flooder gets a license to the target technology,40_IDEA_393)_and_footnotes(n35);.FTNT n35 which is exactly what the patent flooder set out to obtain. In return for giving away a license to its breakthrough technology, the target company receives a license to the inventions claimed in the flood of applications.40_IDEA_393)_and_footnotes(n36);.FTNT n36 Some companies may have no choice but to enter into such an agreement. For example, small companies, in particular, may not have the resources to indemnify customers or to battle large, well-funded competitors.

III. THE STRUCTURE OF THE JAPANESE PATENT SYSTEM MAKES PATENT FLOODING PARTICULARLY EFFECTIVE

Patent flooding is a particularly effective technique in Japan. The Japanese patent system has greatly reduced the significance of the Japanese Patent Office (.JPO.) as the grantor of enforceable patent rights and the initial arbiter of patentability.40_IDEA_393)_and_footnotes(n37);.FTNT n37 Although there are a number of aspects of the Japanese patent system that encourage patent flooding, the most critical of these aspects is the marginalization of the JPO. Issues such as patentability and obviousness, which should be decided by the JPO, are left unaddressed and unresolved for long periods of time.40_IDEA_393)_and_footnotes(n38);.FTNT n38

Without definitive, timely decisions from the JPO, companies are left to contest, debate, and resolve these issues on their own.40_IDEA_393)_and_footnotes(n39);.FTNT n39 In short, market place trading of rights under patent applications too often must substitute for timely rulings from the government on patentability. This trading of rights is often conducted without the benefit of full information and is influenced by the superior bargaining power of larger, wealthier companies.

A. The Reduced Significance of the JPO

The Japanese patent system has reduced the significance of the JPO in a number of ways. These include the ability of applicants to defer examination of their patent applications at the JPO once examination is

requested40_IDEA_393)_and_footnotes(n40);.FTNT n40 and the absence of a strong duty of disclosure.40_IDEA_393)_and_footnotes(n41);.FTNT n41

1. Deferred Examination

Under the Japanese system, a patent application is not examined until the applicant requests examination.40_IDEA_393)_and_footnotes(n42);.FTNT n42 The applicant has seven years from the date of filing to request examination.40_IDEA_393)_and_footnotes(n43);.FTNT n43 However, the applicant is not required to request examination.40_IDEA_393)_and_footnotes(n44);.FTNT n44 If, after seven years, there has been no request for an examination, the application will be deemed withdrawn.40_IDEA_393)_and_footnotes(n45);.FTNT n45

By allowing an applicant to delay examination, the Japanese patent system allows the applicant to unilaterally delay the time at which important issues, such as patentability, are considered by the JPO.

Addressing basic issues of patentability so late in the process will be of little solace to a target company that was forced to relinquish exclusive rights to its technology and the competitive advantages that flowed from those exclusive rights as a result of patent flooding.

Even after examination is requested, it may take three years or more for the JPO to complete examination.40_IDEA_393)_and_footnotes(n46);.FTNT n46 This delay has been due, at least in part, to understaffing in the examiner ranks at the JPO.40_IDEA_393)_and_footnotes(n47);.FTNT n47 The JPO typically receives about twice as many applications annually as the U.S. Patent and Trademark Office (.U.S.P.T.O..).40_IDEA_393)_and_footnotes(n48);.FTNT n48 But the JPO has roughly half as many examiners as the U.S.P.T.O.40_IDEA_393)_and_footnotes(n49);.FTNT n49

2. No Duty of Disclosure

In filing an application with the JPO, the applicant has no duty to disclose prior art which could impact the patentability of the applicant's claimed invention.40_IDEA_393)_and_footnotes(n50);.FTNT n50 The absence of such a duty of disclosure is particularly significant in the context of patent flooding, where applications are targeted at a preexisting core technology. The disclosure of the preexisting core technology invented by another may adversely impact the patentability of the patent flooder's applications. As there is no strong duty of disclosure, the patent flooder may avoid advising the JPO about the preexisting technology and preexisting patents or applications, and the flooder's application is more likely to mature into a patent.

B. The Significance of Private, Pre-Issuance Conduct

Because JPO decisions can be long delayed, technology markets do not receive timely guidance from the JPO on issues such as patentability and obviousness.40_IDEA_393)_and_footnotes(n51);.FTNT n51 Product development, licensing discussions, and technology disputes are not held in abeyance pending rulings from the JPO.40_IDEA_393)_and_footnotes(n52);.FTNT n52 Instead, in the absence of timely rulings from the JPO, private actors must resolve technology disputes related to these issues on their own by agreement. Under these circumstances, the primary focus

can shift from obtaining patents to merely filing patent applications that can be used to extract licenses from others. At least so far as Japanese patent flooding is concerned, private, pre-issuance conduct or the filing of patent applications becomes more important than getting patents issued.

Research over the past decade has shown that Japanese companies have well learned the importance of filing patent applications. Some major Japanese companies have filed 10,000 patent applications in a single year.40_IDEA_393)_and_footnotes(n53);.FTNT n53 In an active year, one Japanese company may file more than 20,000 patent applications.40_IDEA_393)_and_footnotes(n54);.FTNT n54 However, Japanese companies also demonstrate a very low ratio of requests for examinations to patent application filings.40_IDEA_393)_and_footnotes(n55);.FTNT n55 Japanese applicants often file applications without intending to request examination.40_IDEA_393)_and_footnotes(n56);.FTNT n56 For example, in 1989 and 1990, "about forty percent of the applications filed at the JPO were abandoned (i.e., after the full seven year deferral period had elapsed)."40_IDEA_393)_and_footnotes(n57);.FTNT n57 Leading Japanese companies have experienced patent-grantto-patent-application ratios of roughly twenty-five to thirty-two percent.40_IDEA_393)_and_footnotes(n58);.FTNT n58 Two-thirds to three-quarters of these companies. patent applications do not mature into patents.40_IDEA_393)_and_footnotes(n59);.FTNT n59 During the same time period, for example, IBM had a seventy-nine percent grant-to-application ratio in the JPO.40_IDEA_393)_and_footnotes(n60);.FTNT n60

More recent data shows that Japanese companies file far more patent applications in the JPO than do leading companies based in the United States.40_IDEA_393)_and_footnotes(n61);.FTNT n61 As shown in the table below, over the past ten years, some leading Japanese companies filed more than twenty-five applications for each application filed by comparable U.S. companies.40_IDEA_393)_and_footnotes(n62);.FTNT n62

NUMBER OF PATENT APPLICATIONS FILED IN THE JPO OVER A TEN YEAR PERIOD40_IDEA_393)_and_footnotes(n63);.FTNT n63 TABLE
[SEE TABLE IN ORIGINAL]

The marginalization of the JPO means that a company cannot rely for patent protection solely on the workings of the official patent system. A company may quickly find its breakthrough technology surrounded in Japan by a flood of patent applications. In the face of a flood of patent applications, the target company may be forced to surrender exclusive rights to its technology or to battle the flood and indemnify its customers as the price of market access and a continued customer base.40_IDEA_393)_and_footnotes(n64);.FTNT n64 The damage from the flood may be done long before the JPO considers patentability. The flood damage is also likely complete long before the JPO is apprised, through an opposition proceeding, that there is an issue to be adjudicated. The damage is done when the patent flooder extracts valuable business advantages on the basis of flooded patent applications, or even earlier when the target company loses customers as a result of the flooder telling the target's potential customers that the technology is surrounded by a flood of patent applications.

For example, one can always file an application, let the unexamined application publish, and then never request examination.40_IDEA_393)_and_footnotes(n65);.FTNT n65 If examination is never requested, an application is never examined, a patent is never granted, and in the absence of an opposition proceeding, issues such as patentability will not be addressed. The patent flooder is, therefore, still able to "use" the published application as a coercive tool in the world marketplace without ever requesting examination.

Meanwhile, for the target company, the damage accumulates. The damage occurs through loss of sales, demands for indemnification, and the need to constantly persuade potential customers to ignore the flood of patent applications. A target company may be forced, as the price of market access, to license its core technology to its competitors. A coerced cross-license is especially damaging to small companies which, but for their technological innovations, could not hope to participate in the market. Additional damage occurs when the market perceives that the target company's market advantage has been diluted or that the target company is unwilling to protect its intellectual property rights.

IV. THE 1994 AGREEMENTS BETWEEN THE UNITED STATES AND JAPAN DO NOT DETER PATENT FLOODING

In 1994, the United States and Japan entered into agreements by which each country agreed to implement certain changes in its patent system.40_IDEA_393)_and_footnotes(n66);.FTNT n66 These agreements between the United States and Japan do not deter patent flooding or make patent flooding less effective. These agreements, as this article section will show, actually make it harder to combat patent flooding.

A. The Key Provisions of the 1994 Agreements

The primary changes in the Japanese patent system that the 1994 agreements required were: 1) eliminating pre-patent grant oppositions and consolidating post-grant oppositions;40_IDEA_393)_and_footnotes(n67);.FTNT n67 2) allowing applicants to seek accelerated examination;40_IDEA_393)_and_footnotes(n68);.FTNT n68 3) preventing the Japanese government from ordering compulsory patent licenses;40_IDEA_393)_and_footnotes(n69);.FTNT n69 and 4) permitting initial patent filings to be made in the English language with a Japanese translation to follow within two months.40_IDEA_393)_and_footnotes(n70);.FTNT n70

The Japanese government agreed to eliminate its system of the pre-grant oppositions.40_IDEA_393)_and_footnotes(n71);.FTNT n71 Applications in Japan were previously published for opposition prior to examination and before grant.40_IDEA_393)_and_footnotes(n72);.FTNT n72 Interested parties could file an opposition proceeding against an application before a patent issued.40_IDEA_393)_and_footnotes(n73);.FTNT n73 The opposition proceedings are used to challenge the patentability of claimed inventions.40_IDEA_393)_and_footnotes(n74);.FTNT n74 By filing oppositions prior to examination and before grant, companies could delay the issuance of their competitor's patents.40_IDEA_393)_and_footnotes(n75);.FTNT n75

Under the 1994 Agreement, the JPO agreed to end the practice by which applications could be opposed before grant and to permit filing of oppositions only after the patent was granted.40_IDEA_393)_and_footnotes(n76);.FTNT n76 Moreover, when several parties filed oppositions to the same application, the oppositions would be consolidated and simultaneously handled.40_IDEA_393)_and_footnotes(n77);.FTNT n77

The JPO also agreed to permit patent applicants to seek accelerated examination of their applications.40_IDEA_393)_and_footnotes(n78);.FTNT n78 Under the accelerated examination procedure, the application would proceed to patent grant, final rejection, or abandonment within thirty-six months.40_IDEA_393)_and_footnotes(n79);.FTNT n79

The Japanese government also agreed that it would no longer order compulsory licenses.40_IDEA_393)_and_footnotes(n80);.FTNT n80 Section 92 of the Japanese patent statute provides for compulsory licenses where a patented invention would use another person's previously patented invention.40_IDEA_393)_and_footnotes(n81);.FTNT n81 Section 93 provides for a compulsory non-exclusive license when the practice of the patented invention is necessary in the public interest.40_IDEA_393)_and_footnotes(n82);.FTNT n82 Under these provisions, the target of a patent flood had to face the possibility of being forced to license its core technology away to the patent flooder in the interest of the public.

Finally, the JPO agreed to accept English language patent applications, provided that a Japanese translation is filed within two months.40_IDEA_393)_and_footnotes(n83);.FTNT n83 The JPO also agreed to expand the time in which applicants can correct translation errors in their patent applications.40_IDEA_393)_and_footnotes(n84);.FTNT n84

B. These Changes Will Not Deter Patent Flooding and May Make Patent Flooding Harder to Combat

The changes proposed in the 1994 agreements focus on increasing the ability of U.S. companies to get patents issued in Japan and not on increasing the ability of U.S. companies to defend themselves from flooded patent applications. Some of the changes, like those relating to English language filing, should make it easier for U.S. companies to obtain some patent protection.40_IDEA_393)_and_footnotes(n85);.FTNT n85 By making a provision for accelerated examination40_IDEA_393)_and_footnotes(n86);.FTNT n86 and eliminating pre-grant oppositions,40_IDEA_393)_and_footnotes(n87);.FTNT n87 applicants who are interested in obtaining patents should be able to obtain them more quickly. The elimination of compulsory licensing removes a risk that companies faced when involved in contested proceedings in Japan.40_IDEA_393)_and_footnotes(n88);.FTNT n88

These changes will not, however, prevent companies from engaging in patent flooding. To the contrary, the changes to pre-grant opposition practice actually strengthened the position of patent flooders in Japan. The pre-grant opposition was one technique that companies could use to combat patent flooding. The target of the flood could challenge the flood of unexamined applications by filing pre-grant oppositions. These oppositions would cast doubt on the patent flooder's applications and entangle the flooder's applications in the slow moving Japanese opposition procedure. The target of the flood could use its oppositions to reassure customers that it was taking steps to protect

its technology and combat the flood. Pending oppositions would also increase the target company's bargaining power in negotiations with the patent flooder.

The elimination of pre-grant oppositions has eliminated one of the few tools that a target company could use in its own defense. Without the ability to file pre-grant oppositions, a target company seeking to challenge a flood of applications must wait until the flood of applications matures into patents. This waiting period causes a delay lasting up to ten years or more, during which time the target company, its customers, and its potential customers are subject to threats based on the flood of applications.

One of the long-unimplemented changes in the U.S. patent system required by the bilateral agreements is the publication of U.S. patent applications.40_IDEA_393)_and_footnotes(n89);.FTNT n89 This change works to the advantage of patent flooders. This now-implemented change lets patent flooders use published U.S. applications to help identify target technologies and to help direct ongoing patent floods.

The Japanese patent system's encouragement of patent flooding has not apparently been the focus of negotiations between the United States and Japan. The discussions and agreements between the United States and Japan have not addressed the root cause of the problems described -- the marginalization of the J.P.O. and the magnification of private, pre-issuance conduct.

V. PATENT FLOODING IN THE UNITED STATES

Some of the key features of the Japanese patent system, which make patent flooding effective, are not present in the United States patent system. Despite these differences, however, patent flooding could be an effective technique in the United States, albeit not as effective as in Japan. Indeed, there is evidence that patent flooding is taking place in the United States. This section reviews the differences between the patent systems in the United States and Japan as they relate to patent flooding, considers whether patent flooding might nevertheless be effective in the United States, and describes evidence of patent flooding in the United States.

A. Differences Between the Patent Systems of the United States and Japan Affecting Patent Flooding

One of the most significant differences affecting patent flooding is the strong role played by the U.S.P.T.O. in examining applications. In the United States, unlike Japan, the applicant cannot defer examination.40_IDEA_393)_and_footnotes(n90);.FTNT n90 Once filed an application proceeds to examination.40_IDEA_393)_and_footnotes(n91);.FTNT n91 While an applicant may drag out prosecution by delaying responses to office actions,40_IDEA_393)_and_footnotes(n92);.FTNT n92 the applicant cannot simply defer examination for a number of years as is possible in Japan.40_IDEA_393)_and_footnotes(n93);.FTNT n93 Moreover, those involved with the prosecution of a U.S. patent application have a duty to disclose known material prior art.40_IDEA_393)_and_footnotes(n94);.FTNT n94 This duty requires that the patent applicant, the applicant's patent attorney, and all others involved in prosecution disclose material prior art, including patents covering, or literature describing public uses or sales

of, the target company's technology.40_IDEA_393)_and_footnotes(n95);.FTNT n95 A failure to comply with this obligation can render any resulting patent unenforceable40_IDEA_393)_and_footnotes(n96);.FTNT n96 and may, in some circumstances, subject a patent attorney to disciplinary proceedings before the U.S.P.T.O.40_IDEA_393)_and_footnotes(n97);.FTNT n97

Further, damages for patent infringement in the United States do not begin accruing, and injunctive relief cannot be sought, until the patent issues.40_IDEA_393)_and_footnotes(n98);.FTNT n98 Therefore, the existence of an application does not expose the target company to damages.40_IDEA_393)_and_footnotes(n99);.FTNT n99 Once the patent issues, a patentee in the United States cannot sit back and let damages accrue for the life of the patent before bringing suit.40_IDEA_393)_and_footnotes(n100);.FTNT n100 A patentee cannot recover damages for infringement occurring more than six years prior to the filing of the infringement action.40_IDEA_393)_and_footnotes(n101);.FTNT n101 Moreover, a patentee who tolerates infringing activity, which was known or should have been known for six years or more, may find that its complaint for infringement is barred by laches.40_IDEA_393)_and_footnotes(n102);.FTNT n102

Should the flood of applications mature into patents, there are a number of ways in which a target company can fight back. If the target has a reasonable apprehension that it or its customers will be sued for infringement, it can challenge the validity of the flooder's patents in a suit for declaratory judgment.40_IDEA_393)_and_footnotes(n103);.FTNT n103 If the patent flooder has gone so far as to claim the target's own inventions, then the target might seek to amend the patents to list the target's engineers as the true inventors.40_IDEA_393)_and_footnotes(n104);.FTNT n104 Alternatively, the target might provoke an interference and seek to have the Board of Patent Appeals and Interferences determine who has rights to the invention.40_IDEA_393)_and_footnotes(n105);.FTNT n105 All of these factors should combine to make the mere existence of an unexamined patent application in the United States less threatening than in the Japanese patent system.

B. Despite These Differences, Patent Flooding Could be an Effective Technique in the United States

Patent flooding could be an effective technique in the United States, though perhaps not as effective as in Japan. The existence of a flood of unexamined United States patent applications could create enough uncertainty and risk to achieve the patent flooder's objectives. Although patent applications pending solely in the United States are not yet publicly available,40_IDEA_393)_and_footnotes(n106);.FTNT n106 the flooder could provide the target company and the target company's customers with copies of the flooder's applications. Although the patent flooder's U.S. patent applications will be promptly subject to examination, if enough applications are submitted, the flooder's persistence may be rewarded with at least one or two patents.

With even a single issued patent, the flooder will be in a position to subject the target company and its customers to a patent infringement suit.40_IDEA_393)_and_footnotes(n107);.FTNT n107 While the target company may

have a number of ways to fight back, the cost of pursuing those options may be prohibitive. The cost of patent-related litigation in the United States is so great that a legal challenge to the validity of the patents may well be beyond the means of the target company.40_IDEA_393)_and_footnotes(n108);.FTNT n108 Moreover, the pendency of such litigation may itself cause investors to look elsewhere. Similarly, the target company's customers, faced with the possibility that they might be sued for patent infringement, may forego using the target company's technology altogether. Under these circumstances the target company may be forced to purchase peace by licensing away its technology.

C. Evidence of Patent Flooding in the United States.

Despite the differences in the patent systems of the United States and Japan, there is evidence that patent flooding has taken place in the United States.40_IDEA_393)_and_footnotes(n109);.FTNT n109 Allegations of patent flooding were made in at least one lawsuit filed in the United States involving CyberOptics Corp., based in the United States, and Yamaha Motor Company, based in Japan.40_IDEA_393)_and_footnotes(n110);.FTNT n110 The allegations in two other cases, the Minigrip litigation40_IDEA_393)_and_footnotes(n111);.FTNT n111 and the Salomon litigation,40_IDEA_393)_and_footnotes(n112);.FTNT n112 while not clearly alleging patent flooding, are broad enough to encompass it.

1. The CyberOptics Litigation

The allegations in CyberOptics Corp. v. Yamaha Motor Co.40_IDEA_393)_and_footnotes(n113);.FTNT n113 describe a classic patent flood executed in the United States. CyberOptics developed a laser sensor that could be used in "pick-and-place" robots which place electronic components on circuit boards.40_IDEA_393)_and_footnotes(n114);.FTNT n114 CyberOptics demonstrated its new sensor to Yamaha at a trade show.40_IDEA_393)_and_footnotes(n115);.FTNT n115 Yamaha was impressed with the CyberOptics sensor and sought to obtain exclusive rights to the technology.40_IDEA_393)_and_footnotes(n116);.FTNT n116 CyberOptics agreed to sell the sensors to Yamaha for incorporation into pick-andplace machines.40_IDEA_393)_and_footnotes(n117);.FTNT n117 CyberOptics refused, however, to give Yamaha exclusive rights to the technology, because CyberOptics wished to market the sensor to other manufacturers of pick-and-place machines.40_IDEA_393)_and_footnotes(n118);.FTNT n118

When Yamaha failed to obtain exclusive rights to CyberOptics. technology by agreement, CyberOptics alleged that Yamaha sought to obtain right to the technology through a patent flood targeted at CyberOptics. laser sensor technology.40_IDEA_393)_and_footnotes(n119);.FTNT n119 CyberOptics alleged that it worked with Yamaha for more than a year, disclosing to Yamaha the full capabilities of the CyberOptics laser sensor, and suggesting ways in which the sensor could be used to the best advantage in Yamaha's pickand-place machines.40_IDEA_393)_and_footnotes(n120);.FTNT n120 Yamaha then filed patent applications, in the United States and elsewhere, claiming as Yamaha's own, CyberOptics. technology and applications of that technology.40_IDEA_393)_and_footnotes(n121);.FTNT n121 According to

CyberOptics, Yamaha used its flood of patents and patent applications to deter other pick-and-place machine manufacturers from using CyberOptics laser sensors.40_IDEA_393)_and_footnotes(n122);.FTNT n122

After Yamaha's patent flood began yielding issued U.S. patents, CyberOptics filed suit.40_IDEA_393)_and_footnotes(n123);.FTNT n123 CyberOptics alleged that the patents claimed technology that was invented solely by CyberOptics engineers or jointly by CyberOptics engineers and Yamaha engineers.40_IDEA_393)_and_footnotes(n124);.FTNT n124 CyberOptics sought to correct inventorship on the patents,40_IDEA_393)_and_footnotes(n125);.FTNT n125 and sought, in the alternative, declaratory judgments that the patents were invalid as obvious in view of the prior art,40_IDEA_393)_and_footnotes(n126);.FTNT n126 and that the patents were unenforceable due to inequitable conduct.40_IDEA_393)_and_footnotes(n127);.FTNT n127

CyberOptics also alleged that Yamaha had violated the Lanham Act.40_IDEA_393)_and_footnotes(n128);.FTNT n128 CyberOptics alleged that Yamaha made false claims of inventorship relating to CyberOptics laser sensor technology.40_IDEA_393)_and_footnotes(n129);.FTNT n129 These allegedly false claims were likely to cause confusion, mistake, or deception as to the origin or approval of Yamaha's goods.40_IDEA_393)_and_footnotes(n130);.FTNT n130 These allegedly false claims also misrepresented the nature, characteristics, and qualities of CyberOptics. goods and services.40_IDEA_393)_and_footnotes(n131);.FTNT n131 In addition, CyberOptics alleged misappropriation of trade secrets, tortious interference with prospective contractual relations, and conversion.40_IDEA_393)_and_footnotes(n132);.FTNT n132

Yamaha moved to dismiss, asserting that the requests for declaratory judgment of patent invalidity did not present a justiciable case or controversy.40_IDEA_393)_and_footnotes(n133);.FTNT n133 Yamaha also asserted that a number of counts failed to state a claim on which relief could be granted.40_IDEA_393)_and_footnotes(n134);.FTNT n134 The district court found Yamaha's threats of infringement litigation against CyberOptics and its customers created a justiciable case or controversy.40_IDEA_393)_and_footnotes(n135);.FTNT n135 These threats entitled CyberOptics to bring a declaratory judgment action challenging the validity of the patents.40_IDEA_393)_and_footnotes(n136);.FTNT n136 The trial judge found that all challenged counts of CyberOptics. complaint stated claims on which relief could be granted.40_IDEA_393)_and_footnotes(n137);.FTNT n137

Yamaha next sought a writ of mandamus from the United States Court of Appeals for the Federal Circuit.40_IDEA_393)_and_footnotes(n138);.FTNT n138 Yamaha initially argued that "patent flooding" did not exist -- that the term "patent flooding" was made up by CyberOptics. counsel in an effort to deceive the district court.40_IDEA_393)_and_footnotes(n139);.FTNT n139 In an unpublished opinion, the Federal Circuit noted the allegations of patent flooding, but based its ruling on other grounds.40_IDEA_393)_and_footnotes(n140);.FTNT n140 The Federal Circuit granted the petition for a writ of mandamus only on the ground that Yamaha's covenant not to sue mooted any case or controversy that underlay the claims for declaratory judgment of patent invalidity.40_IDEA_393)_and_footnotes(n141);.FTNT n141 Ultimately,

CyberOptics. requests for declaration of patent invalidity were dismissed from the case.40_IDEA_393)_and_footnotes(n142);.FTNT n142 However, Yamaha's flood of patents and applications remained subject to scrutiny from other claims of the complaint, including a request for correction of inventorship and claims of unfair competition and tortious interference, all of which were unaffected by the writ of mandamus.40_IDEA_393)_and_footnotes(n143);.FTNT n143

2. The Minigrip Litigation

Another case involving aspects of patent flooding arose in Minigrip Inc. v. AMI Inc.40_IDEA_393)_and_footnotes(n144);.FTNT n144 Minigrip and AMI were competitors in the market for recloseable plastic bags.40_IDEA_393)_and_footnotes(n145);.FTNT n145 Mingrip sued AMI for infringing six of its patents on recloseable plastic bags.40_IDEA_393)_and_footnotes(n146);.FTNT n146 AMI, in addition to defending against the infringement claim in court, sought the assistance of the Justice Department.40_IDEA_393)_and_footnotes(n147);.FTNT n147 While not using the term "patent flooding," AMI's request for help from the Justice Departme nt implicates many of the same concerns as the CyberOptics case:

We are being sued for patent infringement in . . . U.S. District Court for the Southern District of New York. We are accused of infringing six (6) patents. . . . For almost two (2) years now, we have been reviewing many of Minigrip's 250 plus patents including the six (6) we are accused of infringing. I have been shocked and angered by the circumstances under which many of the patents were secured. . . . I feel we can prove no infringement on the six (6) patents in question, but the futility of our situation is that after trial, Minigrip could go to six (6) more patents to accuse us of infringing and we could repeat the same scenario and, once again, spend hundreds of thousand of dollars in discovery, depositions, witnesses, attorneys, trial etc. Knowing the above, the Minigrip objective is to get us to sign an agreement which will validate their patents, illegally attained and enable them to continue dominance over an industry they have had since the 1960's.

. . .

Minigrip . . . began to create an "arsenal" of patents to protect their dominance in the recloseable bag market. It mattered not whether the patents met the requirements of patent law, the important thing to Minigrip was that they cover all the possible avenues recloseables could take in the future and gain a legal right to these avenues to continue domination of the industry and block competition. This included many instances of fraud on the U.S. Patent and Trademark Offices, and is the case in patents used against us in the infringement claim.40_IDEA_393)_and_footnotes(n148);.FTNT n148

Minigrip, like a classic patent flooder, was alleged to have acquired a vast array of patents through fraudulent conduct, including the failure to cite material prior art to the U.S.P.T.O.40_IDEA_393)_and_footnotes(n149);.FTNT n149 The description of Minigrip's conduct is broad enough to encompass patent

flooding.40_IDEA_393)_and_footnotes(n150);.FTNT n150 The allegations in Minigrip, however, do not clearly allege that AMI's technology, or any other company's technology, had been the target of a patent flood.40_IDEA_393)_and_footnotes(n151);.FTNT n151 While AMI complained to the Justice Department that Minigrip sought to cover with its patents "all the possible avenues recloseables might take in the future,"40_IDEA_393)_and_footnotes(n152);.FTNT n152 AMI does not seem to have contended that Minigrip was patenting the ideas of others or minor variations on the ideas of others. Rather, AMI seemed to emphasize that the number of patents Minigrip was obtaining was out of proportion to the relatively narrow area of technology in which the parties operated: "Anyone with any knowledge of legitimate patent concepts would agree that this many patents created by one company on one topic, recloseable packaging, is very unreasonable."40_IDEA_393)_and_footnotes(n153);.FTNT n153 In this regard, the allegations in Minigrip appear less egregious than those in CyberOptics.40_IDEA_393)_and_footnotes(n154);.FTNT n154

3. The Salomon Litigation

Salomon, S.A. v. Alpina Sports Corp.40_IDEA_393)_and_footnotes(n155);.FTNT n155 implicates concerns similar to those found in the CyberOptics and Minigrip lawsuits.40_IDEA_393)_and_footnotes(n156);.FTNT n156 Salomon sued Alpina for infringing Salomon's patents relating to ski boots.40_IDEA_393)_and_footnotes(n157);.FTNT n157 Alpina asserted a counterclaim for unfair competition, based on the following principal allegations:

Salomon . . . has accumulated a vast number of patents, both U.S. and foreign. Certain of these patents, including certain of the patents in suit, were based not on any development activities of Salomon . . . but, rather, were acquired from third-parties for the sole purpose of creating a vast patent portfolio to enforce against competition and to limit competition. Prior to initiation of this action, . . . Salomon . . . threatened . . . Alpina . . . with patent infringement and proposed to resolve the dispute upon terms that would have required Alpina . . . to limit production of its alpine ski boot products sold to the market, including the United States.40_IDEA_393)_and_footnotes(n158);.FTNT n158

The court further emphasized Alpina's contention that Salomon was using its patent position as "a weapon to force third parties to assign their patent rights to Salomon."40_IDEA_393)_and_footnotes(n159);.FTNT n159

The court's opinion, however, does not reveal any allegations that the patents were obtained through fraud or that they were invalid. Nevertheless, in denying Salomon's motion to dismiss, the court read into the counterclaim an allegation that Salomon's patent infringement suit was brought in "bad-faith" for the purpose of restraining competition.40_IDEA_393)_and_footnotes(n160);.FTNT n160 Alpina's allegation, that Salomon's patents were not based on any development activity of Salomon,40_IDEA_393)_and_footnotes(n161);.FTNT n161 while intriguing, stops short of accusing Salomon of patenting the inventions of others or claiming minor variations on the ideas of others. As in Minigrip, Alpina's complaint seems to center more around the number of patents that Salomon obtained through prosecution or acquisition and the

anticompetitive use to which those patents were put.40_IDEA_393)_and_footnotes(n162);.FTNT n162

VI. TOWARDS A BETTER DEFINITION OF PATENT FLOODING

Patent flooding is best understood as something more than merely filing a large number of patent applications in a particular area of technology, even if that technology was initially technology developed by a competitor. Such behavior could simply be the result of separate and competing research teams trying to solve the same problem. One would be hard pressed to argue that a company that deliberately sets out to develop new and better uses for a competitor's technology is acting inappropriately.

Indeed, the dissemination of new technological developments to the public is one of the principal reasons that nations grant patents.40_IDEA_393)_and_footnotes(n163);.FTNT n163 By disclosing new technology to the public, patent systems promote the progress of the useful arts and encourage further invention.40_IDEA_393)_and_footnotes(n164);.FTNT n164 From this perspective, one who seeks to improve on a competitor's invention is engaged in precisely the activity that the patent system was meant to encourage. Whether that research activity results in one patent application or one hundred is irrelevant. There is no limit, statutory or otherwise, on the number of patent applications that may be filed.

The term patent flooding, which in recent years has taken on a pejorative connotation, is better reserved for particular abuses of the patent systems. One example is where an applicant claims the inventions of another. A further example is where an applicant files patent applications which, a reasonable person would believe, are not allowable or, if allowed, are invalid. The latter example is the common element found in Fusion Systems40_IDEA_393)_and_footnotes(n165);.FTNT n165 and CyberOptics.40_IDEA_393)_and_footnotes(n166);.FTNT n166

If patent flooding simply means filing many applications, then the term does little more than describe a particular applicant's affinity for seeking patent protection or the rigor with which a particular patent system applies an obviousness standard. To be sure, if some companies begin filing large numbers of patent applications, then their competitors will be forced to follow suit. No innovator wants to protect its technology with a single patent, only to have its competitors surround that patented technology with patents on various improvements.40_IDEA_393)_and_footnotes(n167);.FTNT n167 To defend against this, each company must try to ensure that its patents will cover all the important uses and embodiments of the invention, as well as all the commercially attractive features.40_IDEA_393)_and_footnotes(n168);.FTNT n168 Ongoing research to further refine and improve the invention must be followed up with further patent applications.

If all the competitors in a field are filing applications in the same area, some gridlock is sure to result. This may lead to a situation in which no competitor can commercially exploit its inventions without licenses from others. But this sort of gridlock could result even in the absence of patent flooding. In a country where patents are construed narrowly and obviousness40_IDEA_393)_and_footnotes(n169);.FTNT n169 is harder to establish, gridlock may be easier to create and exploit. But this simply means that actors must be

attuned to the differences in the various national patent systems in which they operate.40_IDEA_393)_and_footnotes(n170);.FTNT n170

However, it is a problematic situation where a party files applications and claims technology that it did not invent or has knowledge that the applications will be used to extract concessions. Further, these applications are filed even though they may never be examined and do not recite patentable subject matter. This type of situation cannot simply be attributed to the rough and tumble nature of the marketplace and may give rise to a variety of causes of action. Courts have recognized that threats against third parties based on asserted intellectual property rights can give rise to an action for tortious interference with contractual relations.40_IDEA_393)_and_footnotes(n171);.FTNT n171 Marketplace representations that a party is infringing a patent or will be unable to design around a patent can be a form of unfair competition, where the statements are made in bad faith.40_IDEA_393)_and_footnotes(n172);.FTNT n172 The patenting of ideas conceived by another may also give rise to an action for conversion.40_IDEA_393)_and_footnotes(n173);.FTNT n173 Moreover, patent flooding conduct will also run afoul of the duty of disclosure to the U.S.P.T.O.40_IDEA_393)_and_footnotes(n174);.FTNT n174 Finally, patent flooding may subject the flooder to liability under the antitrust laws.40_IDEA_393)_and_footnotes(n175);.FTNT n175

The most common defense to these claims is that petitions to the government, including applications to the U.S.P.T.O. and efforts to enforce issued patents, are constitutionally protected.40_IDEA_393)_and_footnotes(n176);.FTNT n176 However, this defense would not apply to patent flooding as defined above. Efforts to lobby or petition the government to take some action or to provide some benefit generally cannot form the basis of a civil lawsuit.40_IDEA_393)_and_footnotes(n177);.FTNT n177 This is because the First Amendment protects the right of the people to "petition the government for a redress of grievances."40_IDEA_393)_and_footnotes(n178);.FTNT n178 One should not be held liable for exercising the First Amendment right to petition the government.40_IDEA_393)_and_footnotes(n179);.FTNT n179 The Noerr-Pennington doctrine insulates petitioning activity from suit or liability of any kind, including state law tort claims.40_IDEA_393)_and_footnotes(n180);.FTNT n180

This First Amendment immunity, known as the Noerr-Pennington doctrine, is implicated by all manner of efforts to seek government action. It covers petitioning the judicial branch in the form of civil suit and pleadings,40_IDEA_393)_and_footnotes(n181);.FTNT n181 lobbying the executive branch,40_IDEA_393)_and_footnotes(n182);.FTNT n182 and lobbying the legislative branch.40_IDEA_393)_and_footnotes(n183);.FTNT n183 The immunity also applies to actions before state administrative agencies,40_IDEA_393)_and_footnotes(n184);.FTNT n184 and petitions seeking contracts with the government.40_IDEA_393)_and_footnotes(n185);.FTNT n185 Court have even construed the doctrine to cover private, prelitigation activity.40_IDEA_393)_and_footnotes(n186);.FTNT n186

But the Noerr-Pennington doctrine does not protect "sham petitioning."40_IDEA_393)_and_footnotes(n187);.FTNT n187 "Sham petitioning" is the situation in which a person uses the governmental process, as opposed to the outcome of

that process, as an anticompetitive weapon.40_IDEA_393)_and_footnotes(n188);.FTNT n188 Sham petitioning is not immunized by the Noerr-Pennington doctrine40_IDEA_393)_and_footnotes(n189);.FTNT n189 and may form the basis for a claim under the antitrust laws40_IDEA_393)_and_footnotes(n190);.FTNT n190 or state law tort theories.40_IDEA_393)_and_footnotes(n191);.FTNT n191 Sham petitioning would include conduct, such as the filing of a large number of patent applications that are not well founded, that claim the technology of others, or are that are otherwise frivolous. Whether the petitioning is a "sham" or not, no immunity protects one who attempts to enforce a patent that is known to be invalid or procured by inequitable conduct.40_IDEA_393)_and_footnotes(n192);.FTNT n192

VII. HOW TO AVOID BEING A VICTIM OF PATENT FLOODING.

Patent flooding, wherever it occurs, is difficult to combat. There are, however, some precautions that companies can take to avoid being victimized.

A. Execute Clear Written Agreements

First, companies should obtain written agreements with its business partners, e.g. distributors, joint venturers, customers, or suppliers. Business partners often have the most to gain from patent flooding, and because of technological exchanges in the course of the relationship, are often in the best position to launch a patent flood. A successful patent flood reduces the cost that a business partner is required to pay in order to acquire and maintain access to the technology. A business partner could offer to cross-license a flood of applications in lieu of royalty payments, ask for a reduction in price, or seek to contribute its flood of applications to a joint venture in exchange for a greater share of profits or control. Because a business partner would know which applications of the technology are likely to be valuable, a business partner knows which technology to target.

Agreements with business partners should provide for the confidentiality of technical disclosures. The agreement should make clear what is, and what is not, confidential. Provisions requiring that confidential documents be stamped "confidential" can present problems, because these provisions could be ignored by technical staff. If marking requirements are included, they should be followed. Each side should keep copies of all communications and technical disclosures.

In addition, the agreements should provide for joint ownership of any jointly developed inventions. The agreement should indicate which party will file and prosecute patent applications covering the jointly developed technology. The agreement should also make clear the nature of the relationship: are the parties working hand-in-hand to develop new applications of the technology, or are the parties merely a buyer and a seller? These issues may be clear to the parties at the outset of the relationship, but, are likely to be hotly disputed after a patent flood is discovered.

Furthermore, the agreement should provide a mechanism for determining which technology is jointly developed. Few would disagree with the proposition that jointly developed technology should be jointly owned.40_IDEA_393)_and_footnotes(n193);.FTNT n193 The real problem is in deciding what has been solely developed and what has been jointly developed. The

parties should provide for some mechanism by which the parties will decide whether particular items were developed solely or jointly. The parties might create a panel to review patent applications, or they might provide for third party arbitration.

B. Search Patent Publications

Companies should conduct monthly worldwide patent publication searches of their business partners and competitors. Patent floods can come from any direction. To defend against a flood, companies should promptly file patent applications worldwide, and give careful consideration to the scope of protection they seek. The patent applications should cover important applications of the technology, and key options or variations that will be desirable to customers. If customers are eager for options that a flooder has covered with patent applications, the flood is likely to succeed.

C. Issue Regular Defensive Disclosures

Developments that are not the subject of patent applications should be the subject of a vigorous program of defensive disclosures.

These disclosures are "defensive" because they place new developments in the prior art and make it difficult for a flooder to claim them.40_IDEA_393)_and_footnotes(n194);.FTNT n194 A patent flood depends on the flooder's ability to make a credible claim to rights in certain technology. If a flooder cannot make a credible claim, such as because of an indisputable prior public disclosure, the flooder's leverage is lost.40_IDEA_393)_and_footnotes(n195);.FTNT n195

VIII. CONCLUSION

In a technology-driven global marketplace, the exclusive right to innovative technology can provide a significant competitive advantage. The practice of patent flooding, however, can divest companies of exclusive rights to their technology. Patent flooding should be defined as a technique in which a patent applicant: 1) claims the inventions of another; or 2) files patent applications that a reasonable person would believe are not allowable or, if allowed, invalid. As a result of a patent flood, the target company cannot commercially exploit its own technology without the risk of infringing the intellectual property rights of the patent flooder.

A company that believes it may be the target of a patent flood should ensure that it has executed clear written agreements with its business partners, customers and suppliers. These agreements should address issues regarding the confidential disclosure of technology and the ownership of inventions. Potential targets should promptly file patent applications on their inventions and carefully consider whether their patents and applications provide adequate protection. Finally, potential targets of patent flooding should monitor the published patent applications of their business partners, customers and suppliers, and issue defensive disclosures of any improvements that are not to be the subject of a patent application.

n1 U.S. GENERAL ACCOUNTING OFFICE, Intellectual Property Rights: U.S. Companies.

Patent Experiences in Japan 94 (GGD-93-126) (1993) [hereinafter GAO REPORT].

n2 Dan Rosen & Chikako Usui, The Social Structure of Japanese Intellectual Property Law, *13 UCLA PAC. BASIN L.J. 32, 44 (1994).* Descriptions of patent flooding have even reached popular literature. See MICHAEL CRICHTON, RISING SUN 202 (1992).

n3 Rosen & Usui, supra note 2, at 44.

n4 Id.

n5 See id.

n6 The Japanese patent system tends to award a large number of narrow patents rather than a lesser number of broad patents. See GAO REPORT, supra note 1, at 28-29, 49-50. There is also a perception that the standard of patentability is lower in Japan than in the United States. See David J. Abraham, Shinpo-Sei: Japanese Inventive Step Meets U.S. NonObviousness, 77 J. PAT. & TRADEMARK OFF. SOC.Y 528, 536-37 (1995).

n7 Rosen & Usui, supra note 2, at 44-45.

n8 See generally Jeffrey A. Wolfson, Patent Flooding in the JPO: Methods for Reducing Patent Flooding and Obtaining Effective Patent Protection, *27 GEO. WASH. J. INT'L L. & ECON. 531* (1993-94); Nancy J. Linck & John E. McGarry, Patent Procurement and Enforcement in Japan -- A Trade Barrier, *27 GEO. WASH. J. INT'L L. & ECON 411* (1993-94).

n9 See GAO REPORT, supra note 1, at 33.

n10 See Donald M. Spero, Patent Protection of Piracy: A CEO Views Japan, HARV. BUS. REV., Sept.-Oct. 1990, at 58, 60.

n11 See id. at 59.

n12 See id. at 60.

n13 See id.

n14 See id. at 59-60.

n15 See id. at 60.

n16 See id.

n17 See id.

n18 See id. at 61-62.

n19 Id. at 64.

n20 The American Inventors Protection Act, Pub. L. 106-113, 113 Stat. 1501, *1501A-561 (to be codified at *35 U.S.C § 122*(b)(1)). U.S. patent applications are now published after eighteen months if foreign filing is desired.

n21 See GAO REPORT, supra note 1, at 94; see also Rosen & Usui, supra note 2, at 44.

n22 See Spero, supra note 10, at 60.

n23 See Andrew H. Thorson & John A. Fortkort, Japan's Patent System: An Analysis of Patent Protection Under Japan's First-to-File System (Part II), 77 J. PAT. & TRADEMARK OFF. SOC.Y 291, 298 n.97 (1995). The flood may include not only patent applications, but also applications for "utility models." Id. Utility models are intended to cover ideas that have industrial use and relate to the shape or structure of a device. See id. Applications for utility models are not measured against the inventive step standard that is applied to Japanese patent applications.

See id.

n24 See Toshiko Takenaka, The Role of the Japanese Patent System in Japanese Industry, *13 UCLA PAC. BASIN L.J. 25, 25-26 (1994).* Because Japanese companies make a point of scanning patent publications relating to their industries, the Japanese companies in the relevant industry are likely to take notice of the flood of applications. See id. Even before publication, the flooder may also inform third parties in the relevant industry of the flood of applications. See id.

n25 See *CyberOptics Corp. v. Yamaha Motor Co., No. 3-95-1174, 1996 U.S. Dist. LEXIS 12614,* at *67-68, 72 (D. Minn. July 29, 1991), writ of mandamus granted, *In re Yamaha Motor Co., Ltd., No. 518, 1997 U.S. App. LEXIS 26595 (Fed. Cir. 1997).*

n26 See Japanese Patent Law, Law No. 121 of 1959 (as last amended by Law No. 30 of 1990), ch. IIIbis, § 65ter, reprinted in 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 18-19 (Japanese Group of the International Association for the Protection of Industrial Property trans., WIPO 1994).

n27 See id.

n28 See id.

n29 See GAO REPORT, supra note 1, at 49.

n30 See id. at 39, 47, 49.

n31 See id. at 47.

n32 See id. at 40-41.

n33 See GAO REPORT, supra note 1, at 49; see also Spero, supra note 10, at 60.

n34 See GAO REPORT, supra note 1, at 49.

n35 See id.

n36 See id.

n37 See id. at 39.

n38 See Japanese Patent Law, supra note 26, ch. III, § 48bis, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n39 See id., ch. III, § 48ter, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n40 See id., ch. III, § 48bis, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n41 See id., ch. II, § 29, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 9.

n42 See id.

n43 See id., ch. IIIbis, § 48ter, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n44 See id.

n45 See id. at 16.

n46 See GAO REPORT, supra note 1, at 44.

n47 See id. at 45.

n48 See id.

n49 See id.

n50 See Wolfson, supra note 8, at 542-43; Japanese Patent Law, supra note 26, ch. II, § 29, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 9.

n51 See Japanese Patent Law, supra note 26, ch.III, § 48bis, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n52 See GAO REPORT, supra note 1, at 39.

n53 See id. at 48.

n54 See id.

n55 See id.

n56 See id.

n57 Id.

n58 See Thorson & Fortkort, supra note 23, at 314-15.

n59 See id.

n60 See id.

n61 See Steve J. Keough, Esq., Response to Request for Public Comment Regarding the Identification of Foreign Priority Countries Under Section 182 of the Trade Act of 1974, 11 (Feb. 17, 1996).

n62 See id. at 12.

n63 See id. "The data in this chart were collected in an online database search by Questel-Orbit in the INPADOC database for the time period covering 1985-1996." Id. at 13 n.3.

n64 See Steve Glain, Little U.S. Firm Takes On Japanese Giant: Yamaha Accused of Patent Flooding to Gain Advantage, WALL ST. J., June 5, 1996, at A10; see also Steve Glain, Yamaha, CyberOptics Duel Over Sketch on a Napkin, ASIAN WALL ST. J., June 5, 1996, at 1.

n65 See Japanese Patent Law, supra note 26, ch. III, § 48bis, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n66 See Mutual Understanding on Patents, Jan. 20, 1994, U.S.-Japan, *33 I.L.M. 313 (1994);* see also Exchange of Letters Containing Patent Systems Agreement, Aug. 16, 1994, U.S.Japan, *34 I.L.M. 121 (1995)* [hereinafter Patent Systems Agreement]. The agreements were reached through negotiations involving the patent offices of the United States and Japan. See Patent Systems Agreement, *34 I.L.M. at 121*. The agreements were separately confirmed on January 20, 1994, and August 16, 1994, in correspondence between the U.S. Secretary of Commerce and the Ambassador of Japan to the United States. See id.

n67 See Patent Systems Agreement, supra note 66, Actions to be taken by the JPO, at 124 Paragraph 1(b) & (c).

n68 See id. at 124 Paragraph 2(a).

n69 See id. at 124 Paragraph 3.

n70 See Mutual Understanding On Patents, supra note 66, Actions to be taken by Japan, at 313 Paragraph 1.

n71 See Patent Systems Agreement, supra note 66, Actions to be taken by the JPO, at 124 Paragraph 1(b).

n72 See MANUAL INDUSTRIAL PROPERTY BV, MANUAL FOR THE HANDLING OF APPLICATIONS FOR PATENTS, DESIGNS AND TRADEMARKS THROUGHOUT THE WORLD 6-7 (Supp. No. 80 1998) [hereinafter MANUAL FOR THE HANDLING OF APPLICATIONS]; see also Wolfson, supra note 8, at 543.

n73 See MANUAL FOR THE HANDLING OF APPLICATIONS, supra note 72, at 6-7.

n74 See Japanese Patent Law, supra note 26, ch. III, § 55(1), 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 17.

n75 See GAO REPORT, supra note 1, at 32-33, 47.

n76 See Patent Systems Agreement, supra note 66, Actions to be taken by the JPO, at 124 Paragraph 1(b).

n77 See id. at 124 Paragraph 1(c).

n78 See id. at 124 Paragraph 2(a)-(b).

n79 See id. at 124 Paragraph 2(b)(ii).

n80 See id. at 124 Paragraph 3.

n81 See Japanese Patent Law, supra note 26, ch. IV, § 92(1), 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 23.

n82 See id., ch. IV, § 93(1), 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 23.

n83 See Mutual Understanding On Patents, supra note 66, Actions to be taken by Japan, at 313 Paragraph 1.

n84 See id. at 313 Paragraph 2.

n85 See id.

n86 See Patent Systems Agreement, supra note 66, at 124 Paragraph 2(a)-(b).

n87 See id. at Paragraph 1(b).

n88 See Gianna Julian-Arnold, International Compulsory Licensing: The Rationales and the Reality, *33 IDEA 349, 383 (1993).* As a practical matter, the Japanese patent authorities rarely order compulsory licenses. See id.; see also Mark S. Cohen, Japanese Patent Law and the WIPO Patent Law Harmonization Treaty: A Comparative Analysis, 4 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 847, 885 n.224 (1994) (finding few applications for compulsory licenses have been filed under § 92, and none have resulted in a compulsory non-exclusive license; also finding no applications for compulsory licenses have been filed under § 93).

n89 See American Inventors Protection Act of 1999, Pub. L. No. 106-113, 1000(a)(9), 113 Stat. 1501, 36 (Consolidated Appropriations Act, 2000, enacting S. 1948, 106th Cong., 4502 (1999)) (to be codified at *35 U.S.C. § 122).*

n90 See Japanese Patent Law, supra note 26, ch. III, § 48bis, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n91 See *35 U.S.C. § 131* (1994).

n92 See 37 C.F.R. § 1.136 (1999).

n93 See Japanese Patent Law, supra note 26, ch. III, § 48bis, 4 INDUSTRIAL PROPERTY LAWS AND TREATIES, Japan Text 2-001, at 15.

n94 See 37 C.F.R. § 1.56 (1999).

n95 See id. The duty of disclosure provides that "each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability." Duty to Disclose Information Material to Patentability, 37 C.F.R. § 1.56(a) (1999). The Manual of Patent Examining Procedure further explains this duty: "In addition to prior art such as patents and publications, 37 CFR 1.56 includes, for example, information on possible prior public uses, sales, offers to sell, derived knowledge, prior invention by another, inventorship conflicts, and the like." PATENT & TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE, § 2001.04 (orig. 7th ed. 1998).

n96 See *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc., 863 F.2d 867, 877, 9 U.S.P.Q.2d (BNA) 1384, 1394 (Fed. Cir. 1988)* (stating that inequitable conduct during prosecution may render entire patent unenforceable).

n97 See 37 C.F.R. § 10.23 (1999). The Director of Enrollment and Discipline is charged with investigating possible violations of the disciplinary rules of the U.S.P.T.O., and conducting such disciplinary proceedings as may be necessary. See 37 C.F.R. § 10.2(b)(2) (1999). Conduct subject to discipline includes giving false or misleading information to the U.S.P.T.O. and knowingly violating the duty to disclose information

material to patentability. See 37 C.F.R. § 1.56(a) (1999); 37 C.F.R. § 10.23(c)(2) & (10) (1999); see also Tol-O-Matic, Inc. v. Proma Produkt-Und Mktg. Gessellschaft, m.b. *H., 945 F.2d 1546, 1554, 20 U.S.P.Q.2d (BNA) 1332, 1339 (Fed. Cir. 1991)* (noting a Patent Office investigation into a charge of inequitable conduct based on delayed disclosure of a prior art reference that was known to patentee's foreign counsel).

n98 "Acts before issuance . . . do not themselves infringe . . . a patent." 5 DONALD S. CHISUM, CHISUM ON PATENTS § 16.04, at 16-186 (rel. no. 61, Mar. 1997).

n99 See *GAF Bldg. Materials Corp. v. Elk Corp. of Dallas, 90 F.3d 479, 482, 39 U.S.P.Q.2d (BNA) 1463, 1466 (Fed. Cir. 1996)* (holding that a threat of litigation is not sufficient to create a case or controversy unless the patent had issued before the complaint was filed).

n100 See generally *35 U.S.C. § 286,* Paragraph1 (1994) (requiring a patentee to bring suit within a reasonable time period).

n101 See id. (providing that "no recovery shall be had for any infringement committed more than six years prior to the filing of the complaint or counterclaim for infringement in the action").

n102 See *Hall v. Aqua Queen Mfg., Inc., 93 F.3d 1548, 1553, 39 U.S.P.Q.2d (BNA) 1925, 1929-30 (Fed. Cir. 1996)* (concluding that patentee tolerated infringing activity for at least eleven years).

n103 See *Arrowhead Indus. Water, Inc. v. Ecolochem, Inc., 846 F.2d 731, 737, 6 U.S.P.Q.2d (BNA) 1685, 1689-90 (Fed. Cir. 1988)* (stating that the requirements to sustain a complaint for declaratory judgment are: acts of the defendant indicating an intent to enforce the patent and acts of the plaintiff that subject it or its customers to a suit for patent infringement).

n104 See *35 U.S.C. § 256,* Paragraph1 (1994) (providing that where the inventors have been misnamed, a court may correct the patent where the error was the result of a mistake occurring without deceptive intent); see also *Stark v. Advanced Magnetics, 119 F.3d 1551, 1556, 43 U.S.P.Q.2d (BNA) 1321, 1322-23 (Fed. Cir. 1997)* (explaining inventive correction is proper where an inventor was omitted and the omitted inventor had no deceptive intent).

n105 See *35 U.S.C. § 135* (1994).

n106 The American Inventors Protection Act provides for publication of U.S. patent applications within eighteen months of the filing date if foreign filing is also pursued. See American Inventors Protection Act of 1999, Pub. L. No. 106-113, 1000(a)(9), 113 Stat. 1501, 36 (Consolidated Appropriations Act, 2000, enacting S. 1948, 106th Cong., 4502 (1999)) (to be codified at *35 U.S.C. § 122).*

n107 See *35 U.S.C. § 271* (1994 & Supp. IV 1998).

n108 According to the results of the American Intellectual Property Law Association's 1997 Economic Survey, the median cost through trial in a patent infringement case is over $ 600,000.00, with one in four respondents reporting that the costs exceed $ 1,200,000.00. See American Intellectual Property Law Ass.n., Report of Economic Survey 1997, 1, 66 (1997).

n109 See e.g., *CyberOptics Corp. v. Yamaha Motor Co., No. 3-95-1174, 1996 U.S. Dist. LEXIS 12614* (D. Minn. July 29, 1991); writ of mandamus granted, *In re Yamaha Motor Co., No. 518, 1997 U.S. App. LEXIS 26595* (Fed. Cir. Aug. 27, 1997).

n110 See id.

n111 See *Minigrip, Inc. v. Recpro Co., No. 97-1473, 1998 U.S. App. LEXIS 21159* (Fed. Cir. Aug. 27, 1998).

n112 See *Salomon S.A. v. Alpina Sports Corp., 737 F. Supp. 720, 723 (D.N.H. 1990).*

n113 *1996 U.S. Dist. LEXIS 12614* (D. Minn. July 29, 1991).

n114 Id. at *2-3.

n115 See id. at *4-5.

n116 See id. at *5.

n117 See id. at *6.

n118 See id. at *5.

n119 See id. at *7-8.

n120 Plaintiffs. Brief at Paragraph 11, CyberOptics (No. 3-95-1174).

n121 *CyberOptics, 1996 U.S. Dist. LEXIS 12614,* at *8. CyberOptics alleged that in one instance its president, on a visit to Yamaha's plant in Japan, suggested a way to increase the speed and efficiency of Yamaha's pick-and-place machines. See Steve Glain, Yamaha, CyberOptics Duel Over Sketch on a Napkin, ASIAN WALL ST. J., June 5, 1996, at 1. CyberOptics. president sketched his idea on a napkin, earning praise from Yamaha's engineers. See id. at 20. The napkin sketch, according to CyberOptics, later appeared in slightly revised form in a Yamaha patent. See id.

n122 *CyberOptics, 1996 U.S. Dist. LEXIS 12614,* at *8-9, *34-41.

n123 See id. at *9.

n124 See id. at *63-72.

n125 See id. at *9.

n126 See id.

n127 Plaintiffs. Brief at ParagraphParagraph 45-63, CyberOptics (No. 3-95-1174).

n128 See *CyberOptics, 1996 U.S. Dist. LEXIS 12614,* at *67; see also *15 U.S.C. § 1125*(a) (1994 & Supp. IV 1998).

n129 See *CyberOptics, 1996 U.S. Dist. LEXIS 12614,* at *67.

n130 See id. The Lanham Act forbids false or misleading representations of fact which are likely to cause confusion, mistake or deception as to the origin of goods. See *15 U.S.C. § 1125*(a)(1)(A) (1994 & Supp. IV 1998).

n131 See *CyberOptics, 1996 U.S. Dist. LEXIS 12614,* at *68-73. The Lanham Act forbids advertising or promotion which misrepresents the nature, characterisitics and qualities of goods or services. See *15 U.S.C. § 1125*(a)(1)(B) (1994 & Supp. IV 1998).

n132 See Plaintiffs. Brief at ParagraphParagraph 70-79, CyberOptics (No. 3-95-1174) (misappropriation of trade secrets); Plaintiffs. Brief at ParagraphParagraph 37-40, CyberOptics (No. 3-95-1174) (tortious interference); Plaintiffs. Brief at ParagraphParagraph 80-85, CyberOptics (No. 3-95-1174) (conversion).

n133 See *CyberOptics, 1996 U.S. Dist. LEXIS 12614,* at *29-30.

n134 See id.

n135 See generally id.

n136 See id. at *45; see also 8 CHISUM, supra note 98, § 21.02[1]diii, at 21-35 (rel. no. 48, Nov. 1993).

n137 See id.

n138 *In re Yamaha Motor Co., Ltd., No. 518, 1997 U.S. App. LEXIS 26595 (Fed. Cir. 1997).*

n139 CyberOptics Corp. v. Yamaha Motor Co., No. 3-95-1174, Nonconfidential Answer and Appendix of Respondent at 23 n.9 (Fed. Cir. 1997) (on file with author).

n140 See id. at *8 n.2.

n141 See id. at *7-8.

n142 See id. at *9.

n143 See id. at *6-9.

n144 *No. 97-1473, 1998 U.S. App. LEXIS 21159* (Fed. Cir. Aug. 27, 1998).

n145 See id. at *3-4.

n146 See id. at *2.

n147 See id. *2-4.

n148 Id. at *3-4.

n149 See id. at *8.

n150 See id. at *21.

n151 See id. at *3-5.

n152 Id. at *4.

n153 Id. at *4.

n154 Compare *CyberOptics Corp. v. Yamaha Motor Co., No. 3-95-1174, 1996 U.S. Dist. LEXIS 12614* (D. Minn. July 29, 1991), writ of mandamus granted, *In re Yamaha Motor Co., Ltd., No. 518, 1997 U.S. App. LEXIS 26595* (Fed. Cir. Aug. 27, 1997), with *Minigrip Inc. v. Recpro Co., No. 97-1473, 1998 U.S. App. LEXIS 21159* (Fed. Cir.

Aug. 27, 1998).

n155 *737 F. Supp. 720 (D.N.H. 1990).*

n156 See *id. at 723.*

n157 See *id. at 720.*

n158 *Id. at 723.*

n159 *Id. at 725.*

n160 *Id. at 723.*

n161 See id.

n162 See id.

n163 See *Graham v. John Deere Co., 383 U.S. 1, 9, 148 U.S.P.Q. (BNA) 459, 467 (1966).* The Court in Graham described how Thomas Jefferson's initial aversion to the granting of patent monopolies "ripened" to an appreciation that patents could be an incentive to innovation. *Id. at 7-8, 148 U.S.P.Q. at 463.* The Court noted, however, that "Jefferson did not believe in granting patents for small details, obvious improvements, or frivolous devices." *Id. at 9, 148 U.S.P.Q. at 463.*

n164 U.S. CONST. art. I, § 8, cl. 8. The Constitution authorizes Congress "To promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries."

n165 See generally Spero, supra note 10, at 60-62.

n166 *CyberOptics Corp. v. Yamaha Motor Co., No. 3-95-1174, 1996 U.S. Dist. LEXIS 12614* (D. Minn. July 29, 1991).

n167 Where competitors are filing large numbers of patent applications, it will be the small companies with fewer resources that most feel the strain of trying to match the patenting activities of their larger, well-funded competitors.

n168 Even in the United States, the Supreme Court has noted "the evolution in patent practice from 'central' claiming (describing the core principles of the invention) to 'peripheral' claiming (describing the outer boundaries of the invention) . . . seems merely to reflect narrower inventions in more crowded arts." *Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 27 n.4, 41 U.S.P.Q.2d (BNA) 1865, 1870 n.4 (1997).*

n169 "Obviousness" is defined as:

> Whether a hypothetical person with ordinary skill and knowledge in the art to which the invention pertains with full knowledge of the pertinent prior art, when faced with the problem to which the claimed invention is addressed, would be led naturally to the solution adopted in the claimed invention or at least would naturally view that solution as an available alternative.

2 CHISUM, supra note 98, § 5.04[1], at 5-263 (rel. no. 51, Aug. 1994) (footnote omitted).

n170 Where a patent system discriminates against foreign applicants, or where patents are interpreted so narrowly that obtaining commercially adequate patent protection is either not possible or prohibitively expensive, the patent system may act as a

trade barrier. See generally *19 U.S.C. § 2411* (Supp. IV 1998). In the United States, the government is authorized to impose trade sanctions to combat foreign practices that burden U.S. commerce. See id. Trade sanctions may be imposed where a foreign country's acts, polices or practices are unjustifiable, unreasonable, or discriminatory. See *19 U.S.C. § § 2411*(a)(1)(B)(ii), 2411(b)(1) (Supp. IV 1998). The U.S. Code defines unreasonable acts, polices, or practices to include those that deny "adequate and effective protection of intellectual property rights." *19 U.S.C. § 2411*(d)(3)(B)(i)(II) (Supp. IV 1998).

Section 2242(a)(1) of Title 19 of the U.S. Code also provides for lesser forms of pressure and persuasion. The United States Trade Representative may identify offending countries that deny adequate and effective protection of intellectual property rights or deny fair and equitable market access. See *19 U.S.C. § 2242*(a)(1) (1994). Nations that engage in the most onerous or egregious conduct may be placed on a list of priority nations. See *19 U.S.C. § 2242*(a)(2) (1994). These provisions give the United States leverage in attempting to negotiate agreements that resolve trade disputes and open foreign markets. See Jean Heilman Grier, The Use of Section 301 to Open Japanese Markets to Foreign Firms, 17 N.C. J. INT'L LAW & COMM.L REG., Winter 1992, at 1, 2. Some have argued that the Japanese patent system is a trade barrier. See Comments of Steven J. Keough in Response to Request for Public Comment Regarding the Identification of Foreign Priority Countries Under Section 182 of the Trade Act of 1974 as Amended, dated February 17, 1996 (noting the procedural differences between the U.S. and Japanese patent systems); see also Robert J. Girouard, U.S. Trade Policy and the Japanese Patent System, BRIE Working Paper No. 89 (last modified Aug. 1996) <http://brie.berkeley.edu/briewww/pubs/wp/wp89.html> (noting that from the 1880's through the 1960's, the Japanese government used its patent system to "diffuse" foreign technology among domestic firms). In 1996, the U.S. Trade Representative placed Japan on its Foreign Priority Watch List. See United States Trade Representative, Fact Sheet: "Special 301" on Intellectual Property Rights and 1996 Title VII Decisions, (last modified May 2, 1996) <http://www.ustr.gov/reports/301report/factsheets.html>. Uneven and overly narrow interpretation of patent claims in Japanese courts and patent flooding practices in Japan, limiting the ability of U.S. patent holders to acquire exclusive rights comparable to Japanese patent holders in the United States, are among the items cited. See id.

n171 See *C.N.C. Chem. Corp. v. Pennwalt Corp., 690 F. Supp. 139, 142-43 (D.R.I 1988)* (tortious interference claim based on statements made to plaintiff's customers regarding alleged patent infringement); *Universal City Studios v. Nintendo Co., Ltd., 797 F.2d 70, 74-75, 230 U.S.P.Q. (BNA) 409, 414-15 (2d Cir. 1986)* (tortious interference claim arising from baseless demands that third party licensees stop using trademark).

n172 See *Zenith Elecs. Corp. v. Exzec, Inc., 182 F.3d 1340, 1353, 510 U.S.P.Q.2d (BNA) 1337, 1348-49 (Fed. Cir. 1999)* (stating that false and bad faith representations of patent infringement and the inability to design around, state a claim under the Lanham Act, *15 U.S.C. § 1125*(a), and these claims are not preempted by the patent or antitrust laws).

n173 See *Curtis Mfg. Co. v. Plasti-Clip Corp., 888 F. Supp. 1212, 1233-34 (D.N.H. 1994)* (design of a plastic clip was converted and later filed as part of patent applications).

n174 See 37 C.F.R. § 1.56 (1994). In *Golden Valley Microwave Foods, Inc. v. Weaver Popcorn Co., 837 F. Supp. 1444, 1477-78, 24 U.S.P.Q.2d (BNA) 1801, 1824-25 (N.D. Ind. 1992),* aff.d, *11 F.3d 1072 (Fed. Cir. 1993),* the district court found inequitable conduct in failure to inform the U.S.P.T.O. about a third party's contributions to the technology claimed in applicant's patent application. The Manual of Patent Examining Procedure provides:

> Where the subject matter for which a patent is being sought is or has been involved in litigation, the existence of such litigation and any other material information arising therefrom must be brought to the attention of the Patent and Trademark Office; such as, for example, evidence of possible prior public uses or sales, questions of inventorship, prior art, allegations of "fraud," "inequitable conduct," or violations of duty of disclosure.

PATENT & TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE, § 2001.06(c) (orig. 7th ed. 1998).

n175 See *Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 1072, 46 U.S.P.Q.2d (BNA) 1097, 1108 (Fed. Cir. 1998),* cert. denied, *525 U.S. 876 (1998)*

(affirming antitrust judgment of nearly $ 10,000,000 against a patentee that brought infringement suit with knowledge that the patent was invalid or unenforceable).

n176 See *id. at 1068, 46 U.S.P.Q.2d at 1105.*

n177 See generally U.S. CONST. amend. I.

n178 Id.

n179 See *Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127, 137-38 (1961)* (stating that the right of petitioning the government with respect to the passage and enforcement of laws is protected by the Bill of Rights); *United Mine Workers of Am. v. Pennington, 381 U.S. 657, 670 (1965)* (efforts to influence public officials are not violations of the Sherman Act).

n180 See *Video Int'l Prod., Inc. v. Warner-Amex Cable Communications, 858 F.2d 1075, 1084 (5th Cir. 1988)* (parties who petition the government based on common-law tort doctrines cannot be prosecuted under antitrust laws even though their petitions may be motivated by anticompetitive intent).

n181 See *Professional Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc., 508 U.S. 49, 51, 26 U.S.P.Q.2d (BNA) 1641, 1644 (1993)* (recognizing that parties attempting to petition the government are generally immune from the Sherman Act).

n182 See *Pennington, 381 U.S. at 669-70* (concluding that the Sherman Act does not apply to efforts to influence public officials regardless of intent of purpose).

n183 See *Noerr, 365 U.S. at 137-38* (stating that the Sherman Act does not apply to activities comprising the mere solicitation of governmental action).

n184 See *Kottle v. Kidney Centers Northwest, 146 F.3d 1056, 1059 (9th Cir. 1998),* cert. denied, *525 U.S. 1140 (1999)* (stating that lobbying efforts designed to influence state agencies are within the sweep of the Noerr-Pennington doctrine).

n185 See *Independent Taxicab Drivers. Employees v. Greater Houston Transp. Co., 760 F.2d 607, 612-13 (5th Cir. 1985)* (the Noerr-Pennington doctrine extends to situations where the government enters into contractual relationships with private entities); *Cine 42nd Street Theater Corp. v. The Nederlander Org., Inc., 790 F.2d 1032, 1048 (2d Cir. 1986)* (private entities acting in concert with state agencies are also entitled to state immunity).

n186 See *Cardtoons, L.C. v. Major League Baseball Players Ass.n., 182 F.3d 1132, 1139, 51 U.S.P.Q.2d (BNA) 1253, 1258 (10th Cir. 1999)* (holding that Noerr-Pennington immunity applies where defendants have probable cause for litigation and make no assertions beyond the legal and factual bases for the suit).

n187 *City of Columbia v. Omni Outdoor Adver., Inc., 499 U.S. 365, 380 (1991)* (stating that the "sham" exception to the Noerr-Pennington doctrine includes situations where plaintiffs use the governmental process, rather than the outcome of the process, as an anticompetitive weapon).

n188 Id.

n189 See *California Motor Transp. Co. v. Trucking Unlimited, 404 U.S. 508, 511 (1972)* (The Sherman Act is applicable in situations where the petition is nothing more than an attempt to interfere with the business relationships of a competitor.).

n190 See id.

n191 See *Sessions Tank Liners, Inc. v. Joor Mfg., Inc., 17 F.3d 295, 301-02 (9th Cir. 1994)* (State law claims for tortious interference with prospective economic advantage are not recoverable where damages flow from governmental decisions of disinterested public officials.).

n192 See *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172, 177, 147 U.S.P.Q. (BNA) 404, 406 (1965)* (proof of a party knowingly and willfully misrepresenting facts to the Patent Office will subject the party to antitrust laws).

n193 Joint inventorship. has been defined as "when two or more persons, collaborating together, each contribute to the conception of the solution to a problem, which constitutes the invention." 1 CHISUM, supra note at 98, § 2.02[2], at 2-5 (rel. no. 72, Dec. 1999) (citing 1 W. ROBINSON, THE LAW OF PATENTS FOR USEFUL INVENTIONS, § 396 (1890)).

n194 Defensive disclosures may consist of "printed publications" as described in *35 U.S.C. § 102*(a) & (b) and will generally support and corroborate efforts to invalidate a patent flooder's patent for lack of novelty.

n195 Of course, there is no exclusive right to unpatented inventions publicly disclosed. See 2 CHISUM, supra note at 98, § 5.03[3], at 5-127 (rel. no. 51, Aug. 1994); see also *35 U.S.C. § 102*(a) (1994) (statutory bar to patent for inventions that were known, used by others, patented, or previously described in a printed publication). By patenting the core technology and disclosing peripheral developments, however, a

company can increase the level of exclusivity it enjoys. Fusion Systems for example, could have patented its core ultraviolet lamp technology, e.g. the "truly innovative" elements of the technology and then defensively disclosed the peripheral developments, e.g. the conceivable variations of that technology, such as the various shapes of the bulbs, the design of the lampbase, etc. Thus, third parties would not be able to practice the peripheral developments without also practicing the core, patented technology. See generally Spero, supra note at 10.