PROSECUTION LACHES AS A DEFENSE TO INFRINGEMENT: JUST IN CASE THERE ARE ANY MORE SUBMARINES UNDER WATER

GREGORY F. SUTTHIWAN

Abstract

The comment examines prosecution history laches as an infringement defense in the context of the pending litigation against the Jerome Lemelson Medical Education & Research Foundation. Jerome Lemelson amassed over five hundred patents during his lifetime. Of these, a few key patents have priority based on initial disclosures over forty years ago. Through multiple continuances however, the patents were not issued until decades later and are thus currently enforceable. Lemelson's foundation has been aggressively seeking royalties based on these, so called "submarine patents," against bar-code technology users. This comment discusses the problems posed by "submarine patents" and proposes guidelines for the application of prosecution history laches as a defense against their infringement.

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> The importance in working out the purpose of Congress in keeping the inventor's monopoly within the term for which the patent is granted is thus shown to be capital. Any practice by the inventor and applicant for a patent through which he deliberately and without excuse postpones beyond the date of the actual invention, the beginning of the term of his monopoly, and thus puts off the free public enjoyment of the useful invention, is an evasion of the statute and defeats its benevolent aim.[1]

INTRODUCTION

In July of 1998, Jerome Lemelson's attorney, Gerald Hosier, sent letters to over 1200 companies demanding licensing fees for use of technology alleged to be covered under Lemelson's patent portfolio.[2] Lemelson and Hosier had just favorably settled a court battle with the big three automakers.[3] This settlement, combined with the substantial legal costs to defend an infringement claim,[4] caused hundreds of companies to accept the licensing arrangements.[5] Hosier was signing approximately one license per day,[6] garnering hundreds of millions for his client over the next few years.[7]

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[1] Woodbridge v. United States, 263 U.S. 50, 56 (1923) (emphasizing Congressional intent that an inventor obtain only a "limited" monopoly). The court, upon finding that the inventor had deliberately caused the PTO to delay the issuance of his patent for nine years for the purpose of causing the term of the patent monopoly to coincide with the period resulting in a maximization of his commercial profit, held that the inventor's patent was unenforceable. *Id.* The Patent Clause of the U.S. Constitution, art. 1, § 8, cl. 8, has been interpreted to be both a grant of power and a limitation on the ability of Congress to grant monopolies. Wilson v. Rousseau, 45 U.S. (4 How.) 645, 691 (1846).

[2] Nicholas Varchaver, *The Patent King*, FORTUNE, May 14, 2001, at 203, 216.

[3] InventorEd.org, Jerome H. Lemelson, *at* http://www.inventored.org/inventors/Lemelson/bigthree.html (last visited Mar. 27, 2002).

[4] Brenda Sandburg, *Battling the Patent Trolls*, THE RECORDER (July 31, 2001), *available at* http://www.law.com/cgi-bin/gx.cgi/AppLogic+FTContentServer?pagename=law/View&c=Article&cid=ZZZ4DX7MSPC&live=true&cst=1&pc=0&pa=0.

[5] Varchaver, *supra* note 2, at 216.

[6] *Id.*

[7] Brenda Sandburg, *Inventor's Lawyer Makes a Pile From Patents*, THE RECORDER (July 31, 2001), *available at* http://www.law.com/cgi-bin/gx.cgi/AppLogic+FTContentServer?pagename=law/View&c=Article&cid=ZZZUS8IQSPC&live=true&cst=1&pc=0&pa=0&s=News&ExpIgnore=true&showsummary=0. Gerald Hosier, Lemelson's attorney, declines to say how much he has actually made from licensing Lemelson's patents. *Id.* However, by most accounts it is approximately $400 million.

Many companies refused to accept the license agreements, calling the relevant Lemelson patents "submarine patents," and arguing that because the patents relied on initial disclosures dating back to the mid-1950's, they should not be enforceable today.[8] These companies were soon sued by Lemelson. Between 1998 and 2000, seven suits have been filed against a total of 632 companies.[9]

This Comment discusses the defense of prosecution laches in relation to the submarine patents issue posed by the pending *Symbol Technologies, Inc. v. Lemelson Medical*[10] litigation. Part I begins with a background of Jerome Lemelson and his patent activity. Part II.A explores the submarine patent—why they exist and how they are harmful. Part II.B discusses the prosecution laches defense. Part III.A describes the Lemelson patents at issue in the pending litigation. Part III.B examines the requirements for a laches defense in relation to Lemelson's prosecution activity concerning the patents at issue. Part III.C follows by discussing the policy considerations surrounding application of the prosecution laches defense. Part IV then proposes a test by which courts can determine whether a patent should be subject to a prosecution laches defense.

I. JEROME LEMELSON

A. Background

To understand why one person would have patent license agreements with hundreds of companies and litigation pending against hundreds more, we must first seek to understand the individual himself. Jerome Lemelson was born in Staten Island, New York, on July 18, 1923.[11] The son of a physician and a teacher, Jerry as he was known by his family and friends, displayed an early proclivity toward invention.[12] As a child, he constructed an illuminated tongue depressor for his father to use in his medical practice.[13] After serving in the Army Air Corps engineering department during World War II, Lemelson completed his studies at New York University, earning three engineering degrees, including master's degrees in aeronautical and industrial engineering.[14]

Id. Last year, Forbes Magazine ranked him as the country's top-earning attorney with an estimated income of $40 million. *Id.* The bulk of Hosier's fortune comes from a long-standing relationship with inventor Jerome Lemelson. *Id.*

[8] *Id.*

[9] Varchaver, *supra* note 2, at 216. After the court denied a prosecution laches defense in the case against the automakers, nearly 800 companies in various fields, including semiconductor, telecommunications, and retail, have licensed Lemelson's patents. Sandburg, *supra* note 7.

[10] 277 F.3d 1361, 1363 (Fed. Cir. 2002). This case was originally brought by Symbol Technologies in March of 2000. *Id.* The case was consolidated with a similar action brought by Cognex Corp. *Id.* On January 24, 2002, the Appellate Court ruled in favor of the plaintiffs on interlocutory appeal, reversing the decision of the lower court and deciding that the infringement defense of prosecution history laches is available. *Id.*

[11] Martha Davidson, *The Lemelson Center—About the Lemelson Center: What We Do and Why We Do It, at* http://www.si.edu/lemelson/lemelson/jhl.html (last visited on Nov. 1, 2001).

[12] *Id.*

[13] *Id.*

[14] *Id.* After serving in the military Lemelson returned to New York University where he completed his studies. *Id.* Lemelson graduating in 1951 with a bachelor's degree in aeronautical

Upon graduating, Lemelson and his brother Howard, who was also an engineer, began researching ways to produce a substitute for stainless steel, which was in short supply during the war.[15] They were somewhat successful in hardening steel by infusing chromium into the metal's surface. Despite this success, they did not pursue a patent, and the process was subsequently used in Europe.[16] Lemelson continued to brainstorm and took meticulous care to record his ideas.[17] He had yet to file a patent application, but was apparently planning to do so.[18] Jerome would often ask friends and neighbors to witness and date his notebooks, of which he could fill several pages per day.[19] Howard would later recall how Jerome would often wake up during the night and jot down ideas in one of his notebooks.[20]

B. Patent and Litigation Activity

In 1951, Lemelson saw a demonstration of a punch-card controlled lathe at a metal factory in Brooklyn.[21] This sparked his interest in automated industrial machines.[22] He began developing plans for a universal robot that could, among other things, inspect for quality control using a new technology,[23] which would later become known as "machine vision."[24] His work on this idea culminated in a 150-page patent application that he submitted to the United States Patent & Trademark Office ("PTO") in 1954.[25]

In the 1950's, there was a heightened demand for children's toys due to the post-war baby boom.[26] The toy industry was seeking new product ideas[27] and Lemelson acted to fill that need. In 1953, Lemelson received his first patent, which was for a

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engineering. *Id.* He went on to earn two master's degrees in aeronautical and the other in industrial engineering, a field that encouraged creative thinking about production processes. *Id.*

[15] *Id.*

[16] *Id.*

[17] *Id.*

[18] *Id.*

[19] *Id.*

[20] *Id.* Dorothy Lemelson, who married Jerome in 1954, recalls how Jerome would rather diligently record his ideas, writing on legal pads or later recording his thoughts on tape. *Id.* He regularly transcribed his notes into the bound notebooks and solicited the signatures of those around him as witnesses. *Id.*

[21] *Id.*

[22] *Id.* The punch card machine seen by Lemelson was at the Arma metal factory in Brooklyn. *Id.*

[23] *Id.*

[24] *Machine Vision and Imaging Library, at* http://www.vision1.com/gl.shtml (last visited Oct. 23, 2001). The term machine vision refers to the use of devices for optical non-contact sensing to automatically receive and interpret images of real scenes, to obtain information or control machines or processes. *Id.*

[25] Davidson, *supra* note 11. Lemelson submitted his 150-page machine vision related patent on December 24, 1954. *Id.*

[26] *Id.* It is well known among struggling inventors that the toy industry offers a good chance of generating a quick success because the products involved are typically not very technically complex. Varchaver, *supra* note 2, at 205.

[27] Davidson, *supra* note 11.

variation of the propeller beanie toy cap.[28] Soon after, he completed his first license of an invention, which was for a toy car, to the Ideal Toy Company.[29]

It was during this era that Lemelson first felt that a large corporation had unlawfully appropriated one of his ideas.[30] In 1954, Lemelson submitted an idea to the Kellogg Corporation for a cardboard toy mask that could be cut out of the back of a cereal box.[31] Kellogg declined to use his idea; however, Lemelson pursued his idea anyway and received a patent for his particular type of mask.[32] A few years later when he saw a similar mask printed on the back of a Kellogg's box, Lemelson immediately sued.[33] The company cited instances where it had previously printed similar masks on cereal boxes.[34] The court dismissed the case, alleging unauthorized use and holding that there is no cause of action where an idea claimed to be communicated in confidence had actually already been made public by copyright or patent.[35] However, Lemelson was convinced that the idea for his particular type of mask was unlawfully used.[36] This early court battle, among others, shaped

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[28] U.S. Patent No. 2,654,973 (issued Oct. 13, 1953). Lemelson's first patent was for an improvement to the propeller beanie novelty cap toy. *See id.* Lemelson's invention was a tube leading up to the propeller that the wearer could blow into to spin the propeller. *Id.*

[29] Davidson, *supra* note 11. This invention was for a wheeled toy made from moldable plastic material. U.S. Patent No. 3,016,845 (issued Jan. 16, 1962).

[30] Davidson, *supra* note 11. Lemelson viewed the mask printed on the back of the Kellogg's cereal box to be a clear case of infringement. *Id.*

[31] Lemelson v. Kellogg Co., 259 F. Supp. 904, 906 (S.D.N.Y. 1966). Lemelson made multiple mail solicitations to Kellogg regarding the potential use of his mask design as a promotional item. *Id.* at 905. Even after Kellogg replied indicating that it had no interest in his idea, Lemelson continued to pursue his offer. *Id.* at 906. An example of one such letter is as follows:

> I am enclosing a photostatic copy of a drawing of my constructional masks, which were mailed to you yesterday. The drawing shows sketches depicting means for operating on the masks to assemble them and shape them in accordance with the instructions included with the drawings mailed yesterday. Please note the means of making all three masks (clown, gradpaw, [sic] and pirate) three dimensional. The whiskers of the grandpaw [sic] mask are curled, etc. I trust that I shall hear from you shortly.

Id. at 907.

[32] Varchaver, *supra* note 2, at 206. Lemelson's patent was directed to a play mask having plural components, which may be assembled and disassembled. U.S. Patent No. 2,914,772 (issued Dec. 1, 1959). A primary object of the invention was to provide a constructional toy, which may be worn after partial or complete assembly. *Id.* The mask was designed to be easy to put together and low in cost. *Id.*

[33] Varchaver, *supra* note 2, at 206. Five years after obtaining the patent for the mask, Lemelson sued Kellogg for infringement. *Id.* Kellogg cited multiple occasions where it had imprinted masks on boxes before. *Id.* Lemelson brought two causes of action against Kellogg. Lemelson v. Kellogg, 440 F.2d 986, 987 (2d. Cir. 1971). One cause of action was for unfair competition based on alleged unlawful appropriation of his mask designs, and the other was for infringement of a patent, which he obtained on the design in 1959. *Id.*

[34] Varchaver, *supra* note 2, at 206; *see also* Standard Mfg. Co., Inc. v. United States, 25 Cl. Ct. 1 (1991) (holding that skepticism on the part of a competitor as to whether an idea would be successful is an indication of the non-obviousness of a device that ultimately proves its commercial success).

[35] *Kellogg*, 440 F.2d at 987.

[36] Davidson, *supra* note 11. The author cites the characteristic known as "not-invented-here" ("NIH") as the reason why companies would decline to license many of Lemelson's earlier patents. *Id.* Companies would fight infringement suits in court, despite the vastly greater cost of litigation relative to licensing in many cases. *Id.*

Lemelson's world-view and undoubtedly influenced his sharp practice toward corporations going forward.[37]

Lemelson continued to invent and continued to acquire patents.[38] He also attempted to develop a business based on manufacturing his patented products.[39] These efforts, however, were met with limited success and prompted Lemelson to focus solely on his work as a professional inventor.[40] He was so acutely focused on invention that, in addition to carrying his idea notebooks with him everywhere, he brought his wife with him to tour the PTO on the return trip from their honeymoon.[41] Over the next few decades, Lemelson acquired over 500 patents.[42] Lemelson fueled his ideas, not through hands-on tinkering, but by reading a multitude of trade journals to which he subscribed.[43] By immersing himself in this wide range of technical information, Lemelson was able to create his ideas as he drew connections from one discipline to another.[44] One example of this cross disciplinary style occurred when Lemelson read of oxidation of the skin layer of NASA's space shuttle upon reentry into the atmosphere.[45] He applied this concept to devise a method for producing semiconductor insulation for use on printed circuit boards.[46]

Lemelson's method of invention would later draw criticism as his detractors brought the accusation that this was not invention, but profiteering off the inventions of others.[47] Critics, particularly those who were subject to lawsuits brought by Lemelson, argued that he never invented the key technologies for which he had patents, portraying him as an "anti-Edison."[48]

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[37] Varchaver, *supra* note 2, at 206. Lemelson's former attorney recalls that he was surprised by how aggressively his client wanted to pursue extraction of the maximum licensing amount from alleged infringers. *Id.* at 212.

[38] Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG(PHA), 1995 WL 628330, at *1 (D. Nev. June 16, 1995). Lemelson claimed to be the most prolific living inventor as of 1995. *Id.* He owned patents in a wide range of industrial technologies. *Id.* Lemelson alleged that Ford Motor Company infringed his patents in the area of bar coding and machine vision. *Id.*

[39] Davidson, *supra* note 11.

[40] *Id.* Lemelson is quoted as follows:

> In the beginning, I wanted to manufacture certain ideas I had in the toy and hobby field and become financially independent. After that, I planned to get my own lab and machine shop and develop my ideas further. I made several efforts to get into manufacturing, and they weren't very successful. I was working on a shoestring, and the money I had wasn't enough to carry me through. . . . It wasn't until my last failure in business that I realized I should become a professional inventor and spend most of my time at it.

Id. Lemelson also started a company called Licensing Management Corporation, with the intention of licensing his and other people's inventions. *Id.* At one point, his company represented NASA's spin-off technologies. *Id.* These efforts, however, were met with limited success. *Id.*

[41] *Id.*

[42] Greg Smith, *The Lemelson Situation*, *at* http://machinevisiononline.org/public/articles/articlesdetails.cfm?id=407 (last visited Mar. 27, 2002).

[43] Varchaver, *supra* note 2, at 204.

[44] *Id.* at 205.

[45] Lawrence D. Maloney, *Lone Wolf of the Sierras*, *at* http://www.manufacturing.net/dn/index.asp?layout=articleWebzine&articleId=CA151329&stt=001 (last visited Mar. 29, 2002).

[46] *Id.*

[47] Varchaver, *supra* note 2, at 204.

[48] *Id.*

Another issue that complicates the contention over the validity of some of his key patents is their lengthy prosecution times.[49] Lemelson's patent applications were typically very long, causing them to be subdivided into groups of claims to be evaluated independently.[50] This, combined with multiple continuances and the cutting-edge nature of the material, resulted in several patents issuing over thirty years after their initial filing date.[51]

C. Machine Vision

One of Lemelson's earliest machine-vision-related patents was entitled "Automatic Measurement System" and was issued on November 4, 1969.[52] Claim 1 of the patent describes electro-optical detection of variations in distances between surfaces.[53] The patent relied on initial disclosures made in Lemelson's "universal robot" application filed in 1954.[54] Through numerous continuation-in-part applications U.S. Patent No. 4,984,073 issued on January 8, 1991, also relying on priority from these initial disclosures.[55] In the meantime, the idea of using machines to optically sense an image field evolved into a technology called "machine vision" and is now used by nearly every large manufacturer.[56]

Machine vision is a technology by which computers compare an image taken of a product on an assembly line, for example, to a digital file of a known standard.[57] An argument can be made that Lemelson's early patent captured the germ of the idea for this arrangement.[58] His critics, however, point out that Lemelson never built a working machine vision system, and that the technology, as it is practiced today, is vastly different from how it was conceived in the Lemelson patents.[59] Lemelson's patents have led to an issue that is of even greater contention. That is, whether his

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[49] *See* Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG(PHA), 1995 WL 628330, at *12 (D. Nev. June 16, 1995). Several of Lemelson's patents through which he asserts rights to bar-code technology claim a priority date over thirty years prior to when the final claims were submitted. *Id.*

[50] Davidson, *supra* note 11.

[51] *Ford*, 1995 WL 628330, at *12.

[52] U.S. Patent No. 3,476,481 (issued Nov. 4, 1969).

[53] *Id.*

[54] *Ford*, 1995 WL 628330, at *10.

[55] *Id.* at *11.

[56] Brief of Amici Curiae Semiconductor Industry Association et al., Symbol Techs., Inc. v. Lemelson Med., 243 F.3d 558 (Fed. Cir. 2000) (No. 00-1583) (citing PAUL M. SWAMIDASS, THE MANUFACTURING INSTITUTE, TECHNOLOGY ON THE FACTORY FLOOR III: TECHNOLOGY USE AND TRAINING IN U.S. MANUFACTURING FIRMS, at 3, 8-9 (1998)). Potential infringers of Lemelson's patents include over two-thirds of the nation's large manufacturing companies. *Id.* The manufacturing institute conducted a study that determined the importance of bar-code technology in a modern manufacturing environment. *Id.* Over two-thirds of plants with more than 100 employees use such technology. *Id.*

[57] *Machine Vision and Imaging Library*, *supra* note 24. The term machine vision refers to the use of devices for optical non-contact sensing to automatically receive and interpret an image of a real scene, in order to obtain information and/or control machines or processes. *Id.*

[58] Varchaver, *supra* note 2, at 210.

[59] *Id.*

patents read on the ubiquitous bar-code scanner, a familiar technology that burgeoned in the 1980's.[60]

When Lemelson first applied for his patents on machine vision in the 1950's, he was focused on its use as a quality control tool for manufacturing, not for the grocery and retail uses that are widespread today.[61] In fact, it was not even Lemelson himself who first contended that his patents read on common bar-code technology.[62] In 1989, Lemelson's attorney, Gerald Hosier, was evaluating Lemelson's patents when he realized that that bar-code technology is essentially machine vision.[63] In September 1989, Hosier began amending claims to some of Lemelson's pending machine vision applications to ensure that they would read on bar-code technology.[64]

Hosier's next step was to seek licensing and royalty fees from companies in the electronics and automotive industries, informing them that, in his assessment, they were infringing Lemelson's patents.[65] Since many of the claims were method claims, Lemelson was able to sue not only producers of an infringing product, but that product's users as well.[66] A multitude of companies acquiesced, including many European and Japanese firms, who were reluctant to engage in a costly legal

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[60] Sandburg, *supra* note 7.

[61] Varchaver, *supra* note 2, at 210.

[62] *Id.* at 214.

[63] *Id.*

[64] Varchaver, *supra* note 2, at 214. Lemelson had several attorneys throughout his career. *Id.* When Lemelson fist approached Hosier in the late 1980's, Hosier was one of the few patent attorneys who specialized in the field of contingent fee patent infringement litigation. *Id.* Before establishing a partnership with Raymond Niro in 1976, Hosier was a partner at a litigation boutique in Chicago. Sandburg, *supra* note 4. One of the new partnership's early clients was George Richards, the inventor of the automatic shut-off nozzle used on gas station pumps. *Id.* Richards did not have the financial resources to take on the large companies that he felt were infringing his patent, so he implored Hosier's firm to take the case on a contingency basis. *Id.* At that time, such an arrangement was rare. *Id.* The case resulted in a successful settlement with $200,000 awarded to the client. *Id.* A few years later, Hosier left to form a solo practice that focused exclusively on contingent fee work. *Id.*

[65] Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG(PHA), 1995 WL 628330, at *13 (D. Nev. June 16, 1995). Hosier sent letters to manufacture in which he described typically that the claims of the current pending applications are being carefully drawn to read on practices currently in use. *Id.* Hosier would later defend such statements, arguing that drafting claims to read on existing technology is an acceptable use of the patent system. *Id.* In making this argument, Hosier cited the case of *State Industries, Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1235 (Fed. Cir. 1985). In this case the court described such practices as "commercial gamesmanship." *Id.* Additionally, Hosier directed the court's attention to a quote from a previous case:

> There is nothing improper, illegal or inequitable in filing a patent application for the purpose of obtaining a right to exclude a known competitor's product from the market; not is it in any manner improper to amend or insert claims intended to cover a competitor's product the applicant's attorney has learned about during the prosecution of a patent application. Any such amendment or insertion must comply with all statutes and regulation, of course, but if it does, its genesis in the marketplaces is simply irrelevant and cannot of itself evidence deceitful intent.

Kingstown Med. Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 874 (Fed. Cir. 1985).

[66] HOWARD B. ROCKMAN, THE PRACTICE OF INTELLECTUAL PROPERTY LAW 8 (1998).

confrontation.[67] However, when Hosier pursued this strategy against the big three American automakers, a prolonged court battle began.[68]

Ford, a hard-line patent litigant, argued that Lemelson's patent should not be enforced because of his delays in the application process.[69] Ford's attorneys contended that Lemelson's use of continuation applications during the prosecution of his patents had been abusive.[70] However, in reversing the district court's decision, and denying Ford's motion for summary judgement, the court reasoned that so long as delay in patent prosecution is legally permissible, an applicant cannot be punished for taking advantage of such policy.[71] The judge wrote, "While Lemelson's use of the continuation process may have exploited an open area of patent practice, the court should not intervene to regulate what Congress has not."[72] The case was settled in Lemelson's favor in June of 1998.[73]

Soon thereafter, Hosier demanded and received licensing fees from hundreds of companies in the variety of industries that use bar-code machines.[74] Many of these companies disagreed with Hosier's assessment of the scope of Lemelson's patents. However, they chose settlement over costly litigation regarding a technology they knew relatively little about.[75]

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[67] Varchaver, *supra* note 2, at 214.

[68] *Id.*

[69] *Ford*, 1995 WL 628330, at *1.

[70] *Id.*

[71] Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG (PHA), 1997 U.S. Dist. LEXIS 21497 (D. Nev. Apr. 28, 1997). The standards for summary judgment are well recognized. Summary judgment is only appropriate where the factual record shows that the moving party is entitled to a judgment as a matter of law. Hunt v. Cromartie, 526 U.S. 541, 541 (1999).

[72] *Ford*, 1997 U.S. Dist. LEXIS 21497, at *3; *see also* Northwest Airlines, Inc. v. Transport Workers Union of Am., 451 U.S. 77, 97 n.41 (1981) ("The equitable considerations advanced by petitioner are properly addressed to Congress, not to the federal courts.").

[73] Varchaver, *supra* note 2, at 216.

[74] *Id.*

[75] *Id.*

Soon, companies that were paying licensing fees began to seek compensation from the bar-code technology vendors themselves.[76] The bar-code technology vendors, which Hosier strategically decided not to sue, have mounted a legal campaign against the Lemelson Medical, Education & Research Foundation, the current holder of the late inventor's patents.[77] Led by Symbol and seven other machine vision manufactures, this coalition has set out to invalidate Lemelson's patents on behalf of their customers.[78] This effort has garnered the expressed support of the Semiconductor Industry Association, the Intellectual Property Owners Association, the National Association of Manufacturers, and the National Retail Federation.[79] A case was filed by Cognex in district court in fall of 1999.[80] Symbol filed a similar action in spring of 2000.[81] The trial court consolidated the cases.[82]

Similar to Ford, Symbol and its team have accused Lemelson of unreasonable delay during prosecution and have opined that for this reason Lemelson's patents should not be enforceable under a laches theory.[83] Also similar to *Ford*, the trial

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[76] *Id.*

[77] *Id.*

[78] *Id.*

[79] Brief of Amici Curiae Semiconductor Industry Association et al., Symbol Techs., Inc. v. Lemelson Med., 243 F.3d 558 (Fed. Cir. 2000) (No. 00-1583). The Semiconductor Industry Association ("SIA") is a non-profit trade association representing the U.S. computer chip industry. *Semiconductor Industry Association Homepage*, *at* http://www.semichips.org (last visited Nov. 3, 2001). The semiconductor industry has grown to become the nation's largest manufacturing sector in terms of revenue. *Id.* The U.S. semiconductor industry has sales in excess of $90 billion annually. *Id.* In an effort to continue the growth of this industry, U.S. semiconductor firms currently invest fourteen percent of their annual sales in research and development. *Id.* Short product life cycles and rapid technological obsolescence in the industry also mandate huge capital investments in plants and equipment. *Id.* Because of these investments in research and capital equipment and the importance of technological advances to its customers, the SIA has been an advocate of effective and efficient intellectual property laws. *Id.* The organization's efforts helped lead Congressional passage of the Semiconductor Chip Protection Act of 1984 and to the World Trade Organization's adoption of the Trade Related Intellectual Property Agreement in 1997. *Id.*

The National Association of Manufacturers ("NAM") is the largest United States based trade organization. *National Association of Manufacturers Homepage*, *at* http://www.nam.org (last visited Jan. 28, 2002). The NAM membership includes 10,000 businesses, eighty percent of which are small manufacturers, and 350 member organizations. *Id.* NAM claims that this membership indirectly represents over 18-million workers in the United States. *Id.* NAM is ranked the tenth most powerful lobbying group in Washington by *Fortune* magazine. *Id.*

The National Retail Federation ("NRF") is the world's largest retail trade association. *National Retail Federation Homepage*, *at* http://www.nrf.com (last visited Nov. 15, 2001). The NRF's membership includes leading department, specialty, independent, discount, and mass merchandise stores. *Id.* Its membership also includes key suppliers to the retail industry. *Id.* The Intellectual Property Owners Association ("IPO") is a non-profit, tax-exempt, national organization of nearly 100 large and mid-sized companies and 200 small businesses, universities, inventors, authors, executives, and attorneys. *Intellectual Property Owners Association Homepage*, *at* http://www.ipo.org (last visited Nov. 3, 2001). The IPO was founded in 1972 and represents the interests of owners of intellectual property as broadly as possible. *Id.* IPO members include manufacturers, parties to licenses and agreements, and people generally interested in patents, trademarks, and trade secrets. *Id.*

[80] Cognex v. Lemelson, 67 F. Supp. 2d 5 (D. Mass. 1999).

[81] Symbol Techs. Inc. v. Lemelson Med., 277 F.3d 1361, 1363 (Fed. Cir. 2002).

[82] *Id.*

[83] *Id.*

judge initially ruled against this defense.[84] However, in a rare instance, the Federal Circuit has decided to hear an interlocutory appeal of this decision.[85] The three industry trade groups, the Semiconductor Industry Association ("SIA"), the Intellectual Property Owners Association ("IPO"), and the National Retail Federation ("NRF"), have filed Amicus Curiae briefs in support of a laches defense.[86]

II. THE SUBMARINE PATENT AND THE LACHES DEFENSE

A. Submarine Patents and How They Are Harmful

When the authors of the Constitution established the right of Congress to protect inventors, they did so by the expressed establishment of a patent system. They authors undoubtedly saw a need to encourage invention and innovation.[87] The benefits of which are increased investment development of inventions and enjoyment of the invention by the general public. The Constitution states, "Congress shall have Power To . . . promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[88]

By enacting the patent laws, Congress established a social contract.[89] An inventor, in exchange for disclosing enabling information in his patent, is given a limited monopoly for its use or production. Before 1900, patent applicants were required to submit working models of their inventions.[90] Most of the 1900's, however, saw a substantial segment of patent practice become largely separated from tangible objects.[91] Furthermore, industry has continued to become exponentially more specialized and complex. This has resulted in increased time and other resources necessary to evaluate specialized and increasingly complex patent applications.[92]

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[84] *Id.*

[85] *Id.* An interlocutory appeal is "an appeal of a matter which is not determinable of the controversy, but which is necessary for a suitable adjudication of the merits." BLACK'S LAW DICTIONARY 94 (7th ed. 1999).

[86] *Symbol*, 277 F.3d at 1362.

[87] Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG(PHA), 1995 WL 628330, at *3 (D. Nev. June 16, 1995) ("There is no doubt that one purpose of the patent laws is to reward and encourage individual invention.").

[88] U.S. CONST. art. I, § 8, cl. 8.

[89] Todd R. Miller, *The Public's Right to Know? Or A Red-Tape Nightmare? Demanding That Best Mode Disclosure Be Updated*, 35 IDEA 261, 261 (1995) ("Patent law has been described as a contract; however, unlike most contracts, the patent law contract is a social one.").

[90] Varchaver, *supra* note 2, at 206.

[91] *Id.*; *see also* Univ. of Utah, *Patent Basics: The Nature of Invention*, *at* http://www.tto.utah.edu/ResearchersOrInventors/patent1.htm (last visited Jan. 28, 2002). The requirement for a patent is that the invention be reduced to practice. *Id.* This phrase, "reduced to practice," does not require that a working model of the invention be submitted. *Id.* It is sufficient that the invention is demonstrated to work through drawings, formulas, etc. *Id.* When it is clear that the product will work as described there is "constructive reduction to practice," regardless of whether a working model was constructed. Thus, the reduction to practice requirement can be met without actually having practiced the invention. *Id.*

[92] Revlon, Inc. v. Carson Prods. Co., 602 F. Supp. 1071, 1082 (S.D.N.Y. 1985) ("[T]he PTO is heavily burdened and overworked. . . .").

In an environment where a technically complex patent can take several years to process, it is not surprising that the same or very similar technologies are sometimes developed independently while an earlier inventor's patent is being processed. As these other inventors continue to legally develop their ideas and perhaps even bring them to market, they are wholly unaware of the "submerged" threat within the PTO. Should this patent gain approval, it resurfaces and the other inventor's previously legal activities now become infringement. Hence the term "submarine patent."[93]

Submarine patents may, upon a cursory analysis, seem to be a beneficial aspect of the patent system. That is, by rewarding the applicant who submits his application to the patent office first, assuming there is no prior art, inventiveness and prompt disclosure are encouraged. However, there are other factors that cause the existence of submarine patents to be a net social harm. These factors include unfairness, and discouragement of research and development efforts. All are explored in Part II.C.

B. The Laches Defense

The doctrine of laches can be summarized by the saying, "equity aids the vigilant and not those who slumber on their rights."[94] The purpose of laches is to promote equity by barring the prosecution of an action for relief where the party claiming certain rights has unreasonably delayed the assertion of those rights, and where a delayed assertion of those rights would result in prejudicial detriment to the opposing party.[95] The laches defense is based in equity and differs from other delay doctrines such as estoppel and fraudulent delay, in that no level of reliance or intent is required.[96]

Application of the laches defense requires that the unreasonable delay must be caused by the party against whom the defense is invoked.[97] If the delay is the result of a prolonged incapacitation of the prosecuting party, the defense may be unavailable.[98] Furthermore, the delay cannot be a result of factors beyond control of the prosecuting party.[99] The doctrine also requires that the invoking party would be materially prejudiced by a delayed exercise of the adversarial party's rights.[100]

The laches defense is usually applied under circumstances where a party has delayed in filing a complaint.[101] However, courts have broadened this doctrine to include a party's conduct during patent prosecution.[102] The history of this extension

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[93] Sandburg, *supra* note 7.

[94] Kansas v. Colorado, 514 U.S. 673, 687 (1995).

[95] A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1032-1033 (Fed. Cir. 1992).

[96] Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG(PHA), 1995 WL 628330, at *6 (D. Nev. June 16, 1995).

[97] *A.C. Aukerman*, 960 F.2d at 1032.

[98] *Id.* at 1033.

[99] *Id.* Some of the delays that have been recognized as beyond the control of the patentee are poverty and illness, negotiations with the accused, wartime conditions, and dispute over ownership of the patent. *Id.*

[100] *Id.* at 1033.

[101] *Ford,* 1995 WL 628330, at *5.

[102] *Id.*

of the doctrine dates back to a Supreme Court case from 1923.[103] In *Woodbridge v. United States*, the court applied laches where an inventor delayed issuance of his patent for over nine years.[104] In that case, Woodbridge, the inventor, applied for a patent on a ring-shaped cannon projectile.[105] Under a statute in place at the time, he sought to delay the issuance of the patent by one year, which the PTO allowed.[106] After the expiration of that one year, the PTO mistakenly failed to issue the patent.[107] Woodbridge did not notify the PTO until he requested issuance of the patent nine-and-a-half years later.[108] At that time the term of a patent was fourteen years.[109] In applying laches and dismissing his claim, the court reasoned that enforcing the patent after an unexplained nine year delay would be unfair to other inventors who had obtained patents in the area, and to the government, which was allegedly infringing the patent.[110]

The Supreme Court also recognized the laches defense in *Webster Electric Co. v. Splitdorf Electrical Co.*[111] In *Webster*, Kane, the inventor, filed a patent application in 1910 for an electrical device.[112] One year before the patent issued in 1916, Kane amended nine claims of a recently issued patent.[113] Furthermore, after the patent issued, Kane filed two additional claims in 1918.[114] These two claims were the subject of the litigation between Webster Electric and Splitdorf Electrical.[115] In applying laches, the Court stated that there was no reasonable explanation given for

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[103] Woodbridge v. United States, 263 U.S. 50, 63 (1923). In *Woodbridge*, the patent applicant was granted a delayed issuance of one year under a statute currently in force at the time. *Id.* at 52. At the end of the one year, the PTO mistakenly did not issue the patent. *Id.* at 53. The applicant waited nine years before notifying the PTO of its mistake and requesting issuance of the patent. *Id.* The applicant gave, as the reason for his inaction, that his patent was of no financial consequence at the time. *Id.* In calling his actions "designed delay," the Court held that Woodbridge had forfeited any right he had to a patent. *Id.* at 61; *see also* Woodbury Patent Planning-Mach. Co. v. Keith, 101 U.S. 479, 484 (1880) (barring enforcement of a patent because of intentional delay of more than sixteen years after the patent had initially been rejected and where the invention had gained popularity).

[104] *Woodbridge*, 263 U.S. at 63. In requesting delayed issuance of his patent, Woodbridge also sought to amend the patent claims to read on recent developments that occurred during the period of delay. *Id.* at 53. In denying his motion, the Court cited the fact that other inventors had been at work in the same field. *Id.* at 56. The Court's presumption was that to deprive others who were working on developments while Woodbridge was not pursuing his application would be inequitable. *Id.; see also* Macbeth-Evens Glass Co. v. Gen. Elec. Co., 246 F. 695, 700 (6th Cir. 1917) (holding that public policy dictates that an inventor cannot be allowed to delay prosecution of his patent for an indefinite time for his own profit).

[105] *Woodbridge*, 263 U.S. at 51 (1923).

[106] *Id.* at 52.

[107] *Id.* at 53.

[108] *Id.*

[109] *Id.* at 58

[110] *Id.* at 57.

[111] 264 U.S. 463, 465 (1924). In *Webster*, the Supreme Court recognized a laches defense and barred enforcement of the inventor's patent based on his delay in prosecution. *Id.* at 466. In its reasoning, the Court used the language, "simply stood by and awaited developments," to describe the inventor's actions. *Id.* at 465.

[112] *Id.* at 464.

[113] *Id.*

[114] *Id.*

[115] *Id.* at 465.

the eight-year delay between the initial application and the final amendments.[116] The court also opined that the fact that the last two claims were broader than original claims and not very complicated in nature indicates that the last two claims were added as an exigent afterthought rather than a logical development of the invention.[117] The Court concluded that the "delay was unreasonable, and, under the circumstances shown by the record, constitutes laches, by which the petitioner lost whatever rights it might otherwise have been entitled to."[118] There have been several appellate court decisions, which relied on these Supreme Court authorities, recognizing a prosecution laches defense.[119]

III. LEMELSON'S PATENTS, REQUIREMENTS OF THE LACHES DEFENSE, AND POLICY CONSIDERATIONS

A. Lemelson's Patents Related to the Symbol Litigation

The original disclosures on which Lemelson's later and currently in-force patents rely are contained in two of his early applications.[120] On December 24, 1954, Lemelson submitted his first application that vaguely included machine vision claims.[121] This application was Serial No. 477,647 ("'647 application").[122] After two continuations, filed in 1963 and 1966, the PTO issued Patent No. 3,476,481 entitled "Automatic Measurement System."[123]

On December 4, 1956, Lemelson filed Application Serial No. 626,211 ("'211 application").[124] This application resulted in U.S. Patent No. 3,081,379 entitled "Television Inspection System," which issued on March 12, 1963.[125] From these initial two disclosures, Lemelson filed fourteen continuation and divisional applications including the following:

1. Serial No. 267,377, a continuation-in-part application filed in March, 1963;
2. Serial No. 778,331 a continuation-in-part filed in March, 1977;
3. Serial No. 394,946 a divisional application filed in July, 1982;
4. Serial No. 411,402 a continuation-in-part application filed in September, 1989;

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[116] *Id.* at 466.

[117] *Id.*

[118] *Id.*

[119] *See* Vitamin Tech., Inc. v. Wisconsin Alumni Research Fund., 146 F.2d 941, 952 (9th Cir. 1944) (finding that an eight-year delay in patent prosecution barred enforcement); *see also* Macbeth-Evens Glass Co. v. Gen. Elec. Co., 246 F. 695, 702 (6th Cir. 1917) (holding that public policy dictates that an inventor cannot be allowed to delay prosecution of his patent for an indefinite time for his own profit).

[120] Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG(PHA), 1995 WL 628330, at *12 (D. Nev. June 16, 1995).

[121] *Id. at* *10.

[122] *Id.*

[123] *Id.* at *10-*12 (noting that Lemelson submitted over fourteen continuation and divisional applications related to machine vision patents).

[124] *Id.* at *10.

[125] *Id.*

5. Serial No. 426,080 a continuation-in-part application filed in October, 1989;
6. Serial No. 872,344 a continuation-in-part application filed in December, 1989.[126]

The applications filed in September 1989 and beyond began including claims of a different sort.[127] For the first time, and relying on priority of the '647 and '211 applications filed over thirty-five years earlier, Lemelson's applications included claims related to bar-code technology.[128] The patents issued as a result of these applications are the basis of the current litigation.[129] The most recent patent stemming from Lemelson's string of continuation applications issued in September 1994 and will be in effect until 2011, fifty-six years after the initial disclosure upon which priority is claimed.[130] The length of this delay epitomizes the absurdity of Lemelson's multiple continuations.[131]

B. Requirements of the Laches Defense in Relation to Lemelson's Prosecution Activity

The prosecution laches defense requires that: (1) the patent applicant caused an unreasonable delay during the prosecution process; and (2) this delay worked to the detriment of the party invoking the defense.[132]

1. The Delay Was Unreasonable

Lemelson seeks to attribute the multiple delays in the prosecution of his patents to technicalities at the PTO.[133] He argues that the delay is due to the PTO's restriction requirements on his applications and the fact that many of the patents took several years after the filing of the last application to issue. This explains some of the delay in obtaining a patent and is necessary considering the PTO's limited resources and the number of applications it processes. However, this explanation does not justify the delay between the initial disclosures in the 1954 and 1956 applications and the final amendments to these disclosures, which occurred much later, and which are the basis for the recent litigation.

If Lemelson had been incapacitated for a prolonged period of time between his initial and final disclosures, this delay might have been reasonable.[134] However, there is no evidence of such incapacity. In fact he was actively patenting at that

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[126] *Id.* at *11.
[127] *Id.* at *12.
[128] *Id.*
[129] *Id.*
[130] *Id.*
[131] *Id.*
[132] *Id.*
[133] *Id.*
[134] *Id.* at *13.

time.[135] Because no explanation has been offered, the court can only assume that such a long period of delay was unreasonable.

2. The Delay Is Detrimental to the Opposing Parties

The second element of the laches doctrine requires that the delay result in prejudice to the opposing parties.[136] Symbol, Cognex, and other bar code and machine vision related product manufacturers have asserted that their customers are facing infringement actions brought by Lemelson.[137] Many of these customers have agreed to pay licensing fees to avoid suit. This liability reduces the value of the products offered by companies such as Symbol and Cognex to their customers, because using such products will come with the additional cost of liability to Lemelson. Even more directly detrimental to Cognex, the machine vision manufacturer has asserted that several of its customers have demanded reimbursement from Cognex for licensing fees paid to Lemelson.[138]

C. Policy Considerations Surrounding Application of a Prosecution Laches Defense

There are a multitude of policy considerations that cut in favor of minimizing the occurrence of submarine patents, such as Lemelson's machine vision patents, wherever possible. Not the least of which is the fundamental reason for the establishment of the patent system itself—to encourage and reward invention and innovation.[139] Submarine patents diminish this effort by creating a situation in which an inventor or a corporation, even after thorough legal research, has no way of knowing whether he will have the legal right to practice a technology in which he is considering investing substantial capital and effort.

An extreme example of such potential loss of investment could occur in the automotive and semiconductor industries, where corporations spend billions of dollars and countless man-hours to bring new products to market. These two industries constitute a substantial percentage of the U.S. economy and have been subject to submarine patent infringement suits.[140] The effect submarine patents

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[135] *Id.* at *10-*12 (reciting all of Lemelson's various CIP applications).

[136] A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1033 (Fed. Cir. 1992).

[137] Symbol Techs., Inc. v. Lemelson Med., 277 F.3d 1361, 1363 (Fed. Cir. 2002).

[138] *Id.*

[139] Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 146 (1989). "The Federal patent system thus embodies a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and non-obvious advances in technology and design in return for the exclusive right to practice the invention for a period of years." *Id.* at 150-51; *see also* Shaw v. Cooper, 32 U.S. (7 Pet.) 292, 304 (1833). In *Shaw*, an invention for the improvement of firearms was mistakenly disclosed to the public through a relative of the inventor and subsequently used by the public. *Id.* The Court held that information mistakenly disclosed to the public before the patent had been applied for, although not authorized by the inventor, invalidated the patent. *Id.* at 323. "The invention passes into the possession of innocent persons who have no knowledge of the fraud, and at a considerable expense, perhaps, they appropriate it to their own use." *Id.* at 320.

[140] Brief of Amici Curiae Semiconductor Industry Association et al., Symbol Techs., Inc. v. Lemelson Med., 243 F.3d 558 (Fed. Cir. 2000) (No. 00-1583).

could have on the small company or individual inventor is less extreme in the amount of investment potentially lost, but no less important qualitatively. Individuals who develop technically complex inventions typically spend decades doing so. Additionally, many increasingly specialized small companies may rest their existence on the economic success of a single product or service. These entities, large and small, should not face an environment where an unknown threat could result in devastating loss. In such an environment, such entities would undoubtedly pare their research and development spending to pursue more immediate, even if lesser, results.[141]

Additionally, if submarine patents are enforceable, a situation is created where an inventor would have an incentive to intentionally delay issuance of his patent.[142] For example, where an inventor anticipates that his idea will not be of great economic significance until twenty or thirty years from now, and knowing that a patent issued today would expire by then, the inventor could be inclined to delay issuance of his patent so that it coincides with its period of greatest significance.[143] Furthermore, such a situation would allow initial patent filers to incorporate the benefit of having seen the independent development work of other inventors into their claim amendments, thus giving the patent owner broader coverage than he should be entitled to.[144] Allowing patent applicants to delay their applications indefinitely is also unfair to other applicants. Patent law, prior to 1995, stated that a patent will be in effect for a period of seventeen years.[145] An applicant who delays his issuance should not be entitled to a further reaching period of validity than one who submits all of his claims in a timely manner.

The problems caused by submarine patents have been mitigated by adoption of new patent rules.[146] In June 1995, as part of an effort to harmonize U.S. laws with those of other countries, the term of a U.S. patent was changed from seventeen years from the date of issuance to twenty years from the date of application.[147] Extensions of up to five years were made available for patents that require a long processing time, such as those in biotechnology and software fields.[148]

This new rule, however, does not apply to patent applications filed prior to 1995.[149] Therefore, the inequities caused by submarine patents have not been

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[141] *See Bonito Boats*, 489 U.S. at 148.

[142] Neil Gross & Otis Port, *Suddenly Detroit Has a Huge Bill to Pay*, BUSINESS WEEK (July 20, 1998), *available at* http://www.businessweek.com/archives/1998/b3587114.arc.htm.

[143] *Id.*

[144] *Id.*

[145] *Id.*

[146] *Why Not Guaranteed Patent Term: Hearing on H.R. 359 Before the House Comm. on the Judiciary*, 104th Cong. (1995), *available at* http://www.ipcreators.org/congress/104cong/hearings104/crillyt.htm (statement by Paul B. Crilly, Ph.D., Associate Prof. of Elec. Eng'g, Univ. of Tennessee-Knoxville) [hereinafter Crilly].

[147] Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809 (1994). The Uruguay Round Agreements Act amended 35 U.S.C. § 154 to change the term of a patent to 20 years measured from the filing date of the earliest U.S. application for which benefit under 35 U.S.C. §§ 120, 121, 365(c) is claimed. *See id.*

[148] MANUAL OF PATENT EXAMINATION AND PROCEDURE (MPEP) § 2710, at 2700-3 (8th ed. 2001).

[149] *See id.* (providing that utility and plant patent applications that are filed on or after June 8, 1995 but prior to May 29, 2000 are eligible for patent term extension provisions under old 35 U.S.C.

entirely eliminated. Many patents pending prior to 1995 will still issue. In fact, leading up to the change of the rule in 1995, there was a substantial surge in the number of patent applications.[150] Therefore, it is necessary for courts to adopt a standard by which the enforceability of delayed or submarine patents will be judged.[151]

IV. PROPOSAL

This Comment proposes that courts continue to recognize the defense of prosecution laches, and that they adopt a test comprised of factors to further a consistent and reliable application of the laches doctrine to patent cases.[152] As stated above, the laches defense requires that the delay must be unreasonable and that the delay was detrimental to the opposing party.[153] This defense shall only apply to patents applied for before the 1995 change in the patent term from seventeen years after the date of issuance to twenty years after the date of filing.[154] Because any unreasonable delay before this change in the law allowed a patent holder to have a lengthened window of validity, such a delay would undoubtedly be detrimental to a party that is a defendant in an infringement claim based on a patent that would otherwise have already expired.[155] Therefore, the key issue of contention will be whether the delay was unreasonable.[156]

In determining whether a prosecution delay was unreasonable for a laches defense, this Comment proposes that the court consider the following factors:

1) Whether a significant portion of the delay was caused by the applicant for reasons other than incapacity;

2) Whether the delay was longer than two years; and

3) Whether the applicant amended his claims to include products that were independently brought to market during the delay.

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§154(b), while applications filed after May 29, 2000 are eligible for patent term adjustment under the new 35 U.S.C. §154(b)).

[150] THOMAS E. ANDERSON, SOFTWARE PATENT INSTITUTE DATABASE OF SOFTWARE TECHNOLOGIES, CHANGES IN U.S. PATENT LAWS AS A RESULT OF IMPLEMENTATION OF THE GATT AND NAFTA AGREEMENTS, *at* http://www.spi.org/gatt.htm (last visited on Nov. 3, 2001).

[151] Crilly, *supra* note 146.

[152] *See* Symbol Techs., Inc. v. Lemelson Med., 277 F.3d 1361, 1366 (Fed. Cir. 2002) (holding that the laches defense should be applied with respect to patent prosecution and that the legislative history does not show any indication of intent to remove the defense). Judge Pauline Newman wrote a dissent in this case, arguing that the rules for continuing application have been long established and were codified in the 1952 Patent Act. *Id.* at 1368-69.

[153] *See* Conopco, Inc. v. Campbell Soup Co., 95 F.3d 187, 192 (Fed. Cir. 1996) (emphasizing the importance of the public good when considering laches).

[154] Crilly, *supra* note 146.

[155] Brief of Amicus Curiae Intellectual Property Owners Association, et al., Symbol Techs., Inc. v. Lemelson Med., 243 F.3d 558 (Fed. Cir. 2000) (No. 00-1583).

[156] Crilly, *supra* note 146.

The first factor, that a significant portion of the delay was caused by the applicant for reasons other than incapacity, allows for incapacity to be used as a legitimate justification for delay.[157] It also does not punish the applicant for delays that were beyond his control, such as those caused by the PTO.[158]

The second factor, that the delay be longer than two years, allows for legitimate delays caused by the applicant. Two years will allow inventors to complete further research and amend their claims.[159] However, an unexplained delay of longer than two years will constitute grounds for a finding of unreasonableness.[160] This time factor is supported by the Supreme Court decision in *Webster v. Splitdorf*, in which the Court dismissed an infringement suit brought by Webster.[161] The suit was based on two claims that were amended two years after the plaintiff's divisional application.[162]

The third factor that a court should consider is whether the applicant has amended his claims to specifically include products that were brought to market during the delay. This is a secondary factor and would not necessarily have to be present for a court to apply prosecution laches. The goal of this factor is to severely limit the practice of patent applicants monitoring recent developments and amending their claims to reflect those developments.[163] Patent applicants should not be allowed to gain the benefit of having learned from products that were developed by

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[157] A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1033 (Fed. Cir. 1992).

[158] *See id.* (listing the court listed multiple reasons that could create an equitable justification for delay and also held that a court should consider any justification offered by the plaintiff).

[159] Crilly, *supra* note 146.

[160] *See* Webster Elec. Co. v. Splitdorf Elec. Co., 264 U.S. 463, 465 (1924) (barring the patent holder's claims based on prosecution laches and stating that an unexplained two-year delay constitutes prima facie evidence of unreasonableness). *Webster* involved a plaintiff who amended claims two years after a divisional application and eight years after the initial disclosures on which the priority of the patent was based. *Id.*

[161] *Id.* at 465. The Supreme Court reasoned that the interests of the inventor must be balanced against the interests of the public. *Id.*

> We do not overlook the importance of not applying so narrowly the patent law as to discourage the inventor from exercising his creative genius, or the manufacturer or capitalist from assisting in the necessary work of bringing the invention into beneficial use; but it is no less important that the law shall not be so loosely construed and enforced as to subvert its limitations, and bring about an undue extension of the patent monopoly against private and public rights. In suits to enforce reissue patents, the settled rule of this court is that a delay for two years or more will 'invalidate the reissue, unless the delay is accounted for and excused by special circumstances, which show it to have been not unreasonable.

Id. at 466.

[162] *Id.*

[163] Ford Motor Co. v. Lemelson, No. CV-N-92-613-LDG(PHA), 1995 WL 628330, at *13 (D. Nev. June 16, 1995). Lemelson argued that this practice is a fair use of the patent system. *Id.* However, the Supreme Court spoke unfavorably of this practice in *Webster*. *Webster*, 264 U.S. at 465. In that case, Webster had amended his claims to include nine claims of a recently issued patent for the purpose of creating a cause for an interference action. *Id.* at 464. He further added two more claims, which read on recent developments that were in public use. *Id.* In holding the two latest claim unenforceable, the Supreme Court characterized the plaintiff's actions as unfair. *Id.* at 465. "[The plaintiff], so far as claims seven and eight are concerned, *simply stood by and awaited developments*." *Id.* (emphasis added.)

other entities during a delay.[164] It is unfair for an applicant to be allowed to take advantage of such learnings by amending claims to read on products that, if not for the delay, would not have been covered.[165] Additionally, it would also be unfair for other entities to be removed of the right to practice an invention several years after the fact, where they have lawfully, and perhaps at great expense, adopted such practices before such practices have been protected by a patent.[166]

V. CONCLUSION

In conclusion, the requirements proposed in this Comment would be met only by very few patents.[167] Such patents would likely be those that represent a highly inequitable attempt to exploit a loophole that existed in patent prosecution rules. While nearly all applicants wish to have their patents issued as soon as possible, the possibility that an applicant would decide that his patent would be of greater value much further in the future and attempt to extend his window through unreasonable delays still existed prior to the change of rules in 1995.[168] Such an issue admittedly applies to a very small number of patents. However, as the Lemelson issue shows, such patents can be of enormous financial consequence.[169]

It is therefore important that courts adopt a clear policy toward the treatment of submarine patents. Such a policy will ensure that companies and individuals who invest in intellectual property are not unjustly burdened by submarine patents.[170] Such a policy will also ensure that patent laws are not changed in such a way that will weaken the protection afforded to small inventors of revolutionary products.[171]

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[164] *Id.*

[165] *Id.*

[166] *See* Parks v. Booth, 102 U.S. 96, 105 (1880) (reasoning that if inventors do not keep their inventions secret, they are required to be vigilant in obtaining a patent for their protection).

> Inventors may, if they can, keep their invention secret; and if they do for any length of time, they do not forfeit their right to apply for a patent, unless another in the meantime has made the invention, and secured by patent the exclusive right to make, use, and vend the patented improvement. Within that rule and subject to that condition, inventors may delay to apply for a patent.

Bates v. Coe, 98 U. S. 31, 46 (1878).

[167] Crilly, *supra* note 146. In proposing a solution to the submarine patent issue, it is important to note that the situation presented by Lemelson's multiple continuances is rare. *Id.* Over the past twenty-two years, of the 627 potential submarine patents that have been created, sixty-seven percent of the delays were caused by PTO-issued secrecy orders that prevented the patents from issuing. *Id.* Another six percent were delayed for other reasons not caused by the applicant. This leaves a remaining 167 potentially submarine patents, which were delayed for unexplained reasons. These 167 potentially submarine patents constitute less than one-hundredth of one percent of the 2.3 million patents that have issued over the time period. *Id.*

[168] *Id.*

[169] Varchaver, *supra* note 2. Lemelson has collected over $1.5 billion in licensing fees as of May 2001. *Id.*

[170] Crilly, *supra* note 146. It is also important that any proposal to handle the few submarine patents that issue does not weaken the patent system, a system that has provided the protection necessary for corporations and individuals to create countless jobs and numerous new industries. *Id.*

[171] *Id.* The term of patents issued after the 1995 change are measured in relation to the date of application, as opposed to the date of issuance. *Id.* The defense of laches will not be applicable to

By limiting the threat of submarine patents, such a policy will further the goals of the excellent U.S. patent system.

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patents that issue under the new law, since a delay in prosecution will no longer extend the reach of the patent term. *Id.*