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IMPROVING OUR PATENT SYSTEM FOR A STRONGER AMERICA*

CARLOS J. MOORHEAD**

On December 8, 1994, President William J. Clinton signed into law the implementing legislation for the General Agreement on Tariffs and Trade ("GATT").¹ The Senate approved this legislation by a vote of 76 to 24, and the House of Representatives by a vote of 288 to 146.² GATT devotes significant attention to the Agreement on Trade Related Aspects of Intellectual Property ("TRIPS Agreement").³

* This article was originally drafted in early 1995. Since that time, H.R. 1733 was amended to reflect improvements made in response to valuable comments submitted by expert witnesses, Members, independent inventors, small business, large corporations, industry organizations, patent law associations and the Patent and Trademark Office. This amended version of H.R. 1733 was included as Title II of a more comprehensive patent bill, H.R. 3460. The Subcommittee on Courts and Intellectual Property unanimously approved this legislation by voice vote without objection on May 15, 1996, and eleven Members of the Subcommittee signed as original cosponsors of the bill. Also on May 15, 1996, the Subcommittee rejected H.R. 359 by a vote of 12-2. One June 11, 1996, the House Judiciary Committee unanimously approved H.R. 3460 by voice vote without objection. In addition, Senator Hatch, the Chairman of the Senate Judiciary Committee, introduced and advocated S. 1961. The provisions of 1961 are nearly identical to the provisions of Title II in H.R. 3460.

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¹ Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809 (1994); see also 140 CONG. REC. D1274 (daily ed. Dec. 8, 1994) (noting ratification of GATT Treaty when President Clinton signed Uruguay Round Agreements Act into law).

² Rollcall vote No. 507, 140 CONG. REC. H11534 (daily ed. Nov. 29, 1994); Rollcall vote No. 329, 140 CONG. REC. S15379 (daily ed. Dec. 1, 1994); see also Uruguay Round Agreements Act Vote Report, 103d Cong., 2d Sess. (1994) (voting record indicating approval of GATT trade agreements).

³ See Agreement on Trade-Related Aspects of Intellectual Property Rights, Dec. 15, 1993, GATT Doc. MTN/FA II-AIC, 33 I.L.M. 81 (1994); see also Jeffrey A. Divney & Gary J. Connell, *Intellectual Property Provisions of the GATT*, 23 COLO. LAW. 1069, 1069 (1994) (recognizing TRIPS Agreement as significant intellectual property provisions of GATT); Tara K. Giunta & Lily Shang, *Ownership of Information in a Global Economy*, 27 GEO. WASH. J. INT'L L. & ECON. 327, 335-36 (1994) (discussing that TRIPS Agreement provides minimum standards of intellectual property protection for patents, copyrights, and trademarks); Louis S. Sorell et al., *Changes to U.S. Patent Law Under Gatt: Summary and Practice Recommendations*, in FIFTH ANNUAL PATENT PROSECUTION WORKSHOP, at 95 (PLI Pat., Copyrights, Trademarks, & Literary Course Handbook Series No. 94-3949, 1995) (indicat-

The TRIPS Agreement contains a key patent provision for the establishment of an international standard minimum term for patent protection.⁴ In accordance with GATT, the United States is obliged to establish a minimum patent term of twenty years from the time the patent application is filed.⁵ At the time GATT was proposed, the United States provided only seventeen years of protection from the time the patent was issued.⁶ Consequently, a change in the law was required to ensure compliance.⁷

The GATT implementing legislation took a straightforward approach to complying with this obligation—it simply adopted the “twenty years from filing” term required by GATT.⁸ Since June 8, 1995, that has been the standard to measure patent term in the

ing that through TRIPS Agreement major changes have occurred in United States intellectual property laws, particularly regarding patents); John G. Byrne, Comment, *Changes on the Frontier of Intellectual Property Law: An Overview of the Changes Required by GATT*, 34 DUQ. L. REV. 121, 129 (1995) (suggesting that TRIPS Agreement resulted in major changes in patent law).

⁴ 35 U.S.C. § 154(a)(3) as amended by Uruguay Round Agreements Act, Pub. L. 103-465, § 532 (a)(1), 108 Stat. 4809, 4984-85 (1994) (providing that patent term begins on date patent is issued and ends 20 years from date application originally filed in United States); see also Divney & Connell, *supra* note 3, at 1069-70 (recognizing standard minimum patent term as significant provision of GATT); Ralph Oman, *Intellectual Property After the Uruguay Round*, 42 J. COPYRIGHT SOC'Y U.S.A. 18, 28 (1994) (noting that TRIPS Agreement protects product patents, process patents and does not permit others from marketing product made with patented process); Anthony D. Sabatelli & J.C. Rasser, *Impediments to Global Patent Law Harmonization*, 22 N. KY. L. REV. 579, 602 (1995) (indicating that TRIPS Agreement of GATT contains eight sections, each addressing different fields of intellectual property; one section specifically addresses area of patent practice providing minimum standards of patent protection and enforcement); Sorell et al., *supra* note 3, at 96-99 (providing examples to demonstrate patent term provisions).

⁵ General Agreement on Tariffs and Trade: Agreement on Trade-Related Aspects of Intellectual Property Rights, Dec. 15, 1993, Annex 1C, LEGAL INSTRUMENTS - RESULTS OF THE URUGUAY ROUND vol. 31, 33 I.L.M. 81 (1994) [hereinafter TRIPS]. See generally Jane E. R. Poters & Jean B. Fordis, *The Impact of GATT and TRIPS on U.S. Patent Law*, 10 ME. B. J. 400, 401 (1995) (detailing change in U.S. patent protection after implementation of TRIPS Agreement under GATT).

⁶ 35 U.S.C. § 154(a)(2). Prior to 1994, the patent term had been seventeen years from the date of issuance. *Id.* In order to adhere to the GATT TRIPS requirement, the patent term was changed to twenty years. *Id.*; see Jared Bobrow & Elizabeth Enayati, *Patent Practitioners Beware: Gatt Changes the Rules in U.S. Patent Law*, 7 J. PROPRIETARY RTS. 13 (1995) (detailing prior patent law and effect of GATT implementing legislation, including TRIPS agreement); Divney & Connell, *supra* note 3, at 1070 (noting that prior to 1994, United States Patent Act only protected patents for 17 years from date of issuance).

⁷ See Byrne, *supra* note 3, at 129 (indicating that GATT implementing legislation required 20 year patent term in order to comply with provisions of GATT); see also Divney & Connell, *supra* note 3, at 1070 (noting that United States was required to amend its law to comply with GATT TRIPS minimum patent term of 20 years from filing date).

⁸ Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809 (1994); see Bobrow & Enayati, *supra* note 6, at 13 (noting that GATT implementing legislation, Uruguay Round Agreements Act, amends United States statute to provide for 20 year patent term); see also Sorell, *supra* note 3, at 95-97 (stating that GATT implementing legislation adopted 20 year patent term required by GATT).

United States.⁹ At the time GATT was enacted, however, it was understood Congress would evaluate the solutions provided by GATT and assess the major problems still facing United States' inventors and industries. Three major issues still must be addressed: (1) ensuring that foreign countries continue to open their markets and provide sufficient protection for United States' inventors,¹⁰ (2) ending the practice of submarine patents, an abuse of the seventeen year term that could potentially devastate entire industries,¹¹ and (3) securing sufficient patent term protection.¹²

In 1995, I introduced House Resolution 1733 ("H.R. 1733"),¹³ a bill that addresses and resolves each of the above concerns.¹⁴ An

⁹ 35 U.S.C. § 154(a)(2) (1988); see Byrne, *supra* note 3, at 129 (noting that 20 year term became effective on June 8, 1995 and explaining impact of new law).

¹⁰ See Marshall A. Leaffer, *Protecting United States Intellectual Property Abroad: Toward a New Multiculturalism*, 76 IOWA L. REV. 273, 274 (1991) (indicating that United States has become vulnerable to piracy, expropriation, and inadequate protection in certain foreign countries).

¹¹ See Susan Gembrowski, *San Diegans Differ on Big Changes in U.S. Patent Law*, SAN DIEGO DAILY TRANSCRIPT, Aug. 14, 1995, at A1 (explaining problem of submarine patents and providing intermittent windshield wiper as example).

¹² See Giunta & Shang, *supra* note 3, at 338 (noting concerns created by TRIPS Agreement, including enforceability of its provisions); see also Sabatelli & Rasser, *supra* note 4, at 602-03 (suggesting result of TRIPS Agreement will be failure to ensure sufficient patent protection).

¹³ H.R. 1733, 104th Cong., 1st Sess. (1995). *Editorial Note*: Since the substantive writing of this article, H.R. 1733 was revised and included in another bill, H.R. 3460, which was approved unanimously by voice vote without objection in the subcommittee and full judiciary hearing.

¹⁴ See *Hearings Before the Subcomm. on Courts and Intellectual Property of the House Comm. on the Judiciary*, 104th Cong., 2d Sess. (1995) [hereinafter *Hearings Before the House Subcomm. on Courts & Intellectual Property*] (testimony of Roger L. May, Assistant General Counsel, Intellectual Property Practice Group, Ford Motor Company). May supports H.R. 1733 and explains that Ford is a "technology-driven company," designing and engineering new products to be responsive to customer's demands. *Id.* In Ford's view, "H.R. 1733 builds upon the stability and predictability provided by recent patent term changes, while H.R. 359 destroys those aspects." *Id.* Ford supports H.R. 1733 because it does not change the patent term provisions of GATT, thereby assuring "timely flow of technology necessary to keep America competitive with other nations and ensures patent protection." *Id.*; see also *Changes in U.S. Patent Policy and Their Implications for Energy and Environment Research and Developments before the Subcomm. on Energy and the Environment of the House Comm. on Science*, 105th Cong., 1st Sess. (1996) (testimony of Roger L. May, Assistant General Counsel - Intellectual Property Ford Motor Company) (arguing against passage of H.R. 359); Stacy Berg, et al., *Bill to Provide for Publication of Patent Applications*, 7 J. PROPRIETARY RIGHTS 27, 27-28 (1995) (outlining provisions of H.R. 1733); Joseph A. Fischetti, *Harmonizing U.S. Patent Laws—Help or Hindrance*, CONN. LAW TRIB., Oct. 16, 1995, at S19 (discussing congressional response to current U.S. patent laws and highlighting provisions of H.R. 1733); Gembrowski, *supra* note 11 at A1. This article notes the changes in patent law and recognizes the division existing as those involved with patents decide which rules best suit them. *Id.* The author outlines the positions espoused by the two groups an indicates the arguments for and against H.R. 1733 and H.R. 359. *Id.*; *House Panel May Act This Year on Proposed Changes in Patents*, FED. TECH. R., Nov. 9, 1995, at 3. It is indicated that H.R. 1733 supports change in patent law created by GATT implementing legislation. *Id.* In so doing, American inventors are subjected to same terms as those in

opposing bill, H.R. 359¹⁵ seeks to reverse the benefits secured in the TRIPS Agreement and to combine the current filing based system with the old issuance based system.¹⁶ The approach adopted in H.R. 359 encourages the manipulative and destructive practice of submarine patenting.¹⁷ Even worse, H.R. 359 ignores the progress made in opening foreign trade barriers to American inventors by inhibiting the United States' ability to further open these markets.¹⁸ There is before us a question as to whether we go forward and strengthen our inventors and our industries to compete in a global economy or whether we roll back the gains that we have already made.

I. FOREIGN TRADE BARRIERS: THE DESTRUCTION OF COMPETITIVENESS IN THE GLOBAL MARKETPLACE AT THE EXPENSE OF THE UNITED STATES.

Growth in the intellectual property industries has exploded in the past several years.¹⁹ For example, copyright-based industries

foreign countries. *Id.* But see Robert H. Rines & Skip Kaltenheuser, *Patent Legislation Pending*, CONN. LAW TRIB., July 3, 1995, at 21 (criticizing H.R. 1733 for providing Japanese companies with U.S. inventions allowing them to "leap frog" U.S. innovations).

¹⁵ H.R. 359, 104th Cong., 1st Sess. (1995). *Editorial Note*: Since the substantive writing of this article, H.R. 359 was voted down in the Subcommittee by a vote of 12-2.

¹⁶ See *id.* This legislation proposes that the patent term be changed to be the longer of seventeen years from date of issue or twenty years from date of filing. *Id.*; LEXIS 1995 Bill Tracking H.R. 359. On January 4, 1995 the bill was referred to committee and there are currently one hundred and thirty co-sponsors in the House. *Id.*; see also *Hearings Before the House Subcomm. on Courts & Intellectual Property*, *supra* note 14. Roger May states that "H.R. 359 seeks to return us to a system subject to abuse driven by greed—a system which is in fact hostile to those seeking to market new technologies . . . [a] backward step." *Id.*

¹⁷ See Ted Bunker, *Does Patent Law Sell Out Small Inventors?*, INVESTOR'S BUS. DAILY, May 1, 1995, at A4 (explaining how H.R. 359 would affect "submarine patents").

¹⁸ See *Hearings Before the House Subcomm. on Courts & Intellectual Property*, *supra* note 14 (testimony of William D. Budinger, Chairman and CEO of Rodel, Inc.). Mr. Budinger expresses concerns regarding H.R. 359 and believes it will reduce the field of opportunity for U.S. inventors and make the United States less attractive for manufacturing. *Id.*; see also *Changes in U.S. Patent Law and Their Implications for Energy and Environmental Research and Development Before the House Subcomm. on Energy and Environment of the Comm. on Science*, 105th Cong. 2d Sess. (1996) (testimony of William D. Budinger, Chairman & CEO, Rodell, Inc.); Rines & Kaltenheuser, *supra* note 14, at 21 (detailing effects of H.R. 359).

¹⁹ See Janet Hamilton, *What's Going on in Intellectual Property Law?*, 84 AM. SOC'Y INT'L L. PRAC. 256, 257 (1990) (indicating that intellectual property is one of few areas in which United States has trade surplus and calculating that United States received eight billion dollars in intellectual property royalties while paying only one and a quarter billion); see also John T. Masterson, Jr., *Protection of Intellectual Property Rights in International Transactions*, in THE COMMERCE DEPARTMENT SPEAKS ON INTERNATIONAL TRADE & INVESTMENT 1994, at 333-34 (PLI Corp. Law & Practice Course Handbook Series No. 863, 1994) (noting that intellectual property accounts for approximately 25% of U.S. exports, increase from 12% eight years ago).

in the United States are growing at twice the annual rate of the economy and employing new workers at almost four times the annual rate of the economy as a whole.²⁰ As far as the importance of international patent protection is concerned, the United States is already recognized as a world leader in inventing new technologies.²¹ As a result of its increased importance, intellectual property protection has become an essential feature of our trade policy.²² Negotiating and enforcing strong intellectual property agreements has taken on a new urgency because of the increased importance of intellectual property industries to our national competitiveness.²³

In testimony before the Senate Finance Committee, Ambassador Michael Kantor, the United States Trade Representative, emphasized how essential it is that America break down foreign trade barriers. Mr. Kantor stressed the following points:

²⁰ See generally STEPHEN E. SIWEK AND HAROLD FURCHTGOTT-ROTH, INT'L INTELL. PROP. ALLIANCE ECONOMISTS INC., COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: 1977-1993 (1995). Last February, the author participated in a press conference at which this report was released. This report was prepared for the International Intellectual Property Alliance by Economists, Inc. These figures are indicative of just how important the intellectual property industries are to today's economy, and to America's economic future.

In 1993, the copyright industries accounted for 3.7 percent of the U.S. Gross Domestic Product—this means \$238.6 billion. *Id.* Between 1977 and 1993, employment in U.S. copyright industries more than doubled to 3 million workers, which is 2.5 percent of the total U.S. work force. *Id.* Between 1988 and 1993, the U.S. copyright industry employment grew almost four times the annual rate of the whole economy—2.6 percent versus .7 percent. *Id.* The copyright industries contribute more to U.S. economy and employ more workers than any single manufacturing sector, including aircraft, primary metals, textiles, apparel, or chemicals. *Id.* In 1993, the U.S. copyright industries achieved estimated foreign sales of \$45.8 billion. After automobiles and parts, the copyright industry is the second largest industry in exports. *Id.*

²¹ *Intellectual Property Rights: U.S. Companies' Comparative Patent Experiences in Japan, Europe and United States Before the Subcomm. on Int'l Trade, Senate Comm. on Finance*, 102d Cong., 1st Sess. (1993) [hereinafter *Comparative Patent Experiences*] 13 (testimony of Allan I. Mendelowitz, Dir. of Int'l Trade, Finance and Competitiveness Issues of General Accounting Office); see Michael L. Doane, *TRIPS and International Intellectual Property Protection in an Age of Advancing Technology*, 9 AM. U. J. INT'L L. & POL'Y 465, 465-66 (1994). The United States is the world's leading technological innovator. *Id.*

²² See Doane, *supra* note 21, at 465-66. Strong protection of intellectual property rights is important to the United States as world leader in inventing technology. *Id.*; see also Marshall A. Leaffer, *Protecting United States Intellectual Property Abroad: Toward a New Multilateralism*, 76 IOWA L. REV. 273, 274-75, 288-98 (1991). It is noted that intellectual property has become a major component of U.S. trade and U.S. competitiveness on a global market. *Id.* To protect these interests, the United States regards intellectual property protection a necessary component of U.S. trade policy. *Id.*

²³ See Doane, *supra* note 21, at 465-66. International protection of intellectual property rights is important to the U.S. agenda. *Id.* Negotiating international trading system reforms is essential to protect intellectual property rights. *Id.*; see also Leaffer, *supra* note 22, at 288-98. The United States regards strong intellectual property agreements as a necessity. *Id.* As such, negotiating, creating, and implementing such agreements has played a primary role in U.S. trade policy. *Id.*

Th[e] global economy offers tremendous opportunities for American workers. Over 11 million workers in this country owe their jobs to exports. These jobs pay higher wages, on average, than jobs not related to trade. Every billion dollars of exports supports 17,000 jobs. Clearly, expanding trade is critical to our effort to create good, high-wage jobs. * * *

The global economy will not disappear. We cannot turn back the clock. Even if we could, we must face the fact that the United States has a mature economy and we have only four percent of the world's population. Future opportunities for growth here at home will depend in part on providing goods and services to the other 96 percent. Given this fact, opening markets, expanding trade and enforcing our trade agreements are important to fostering growth here at home. * * *

After World War II and during the Cold War, the United States used trade policy as part of the strategy to help rebuild the economies of Europe and Japan and to resist communist expansionism. We led the world in global efforts to dismantle trade barriers and create institutions that would foster global growth. * * *

But now we are no longer the sole dominant economic power in the world. We are the world's largest economy—and largest trading nation—but our economy, which represented 40 percent of the world's output following World War II, now represents 20 percent. Europe and Japan rebuilt and became tough competitors. The newly industrialized nations, such as the so-called Asian Tigers, became increasingly protective, winning a share of our market, without opening theirs equally.

Although we welcome the products, services and investment of other nations here in the United States, now we must insist that the markets of our trading partners be open to the products, services and investment of the United States. We will no longer tolerate "free riders" in the global trading system. We insist on reciprocity in our trade agreements. This is a critical change in the way we view both trade policy and foreign policy. * * *

The road to prosperity is not always smooth. Sometimes our trading partners will have economic problems, and we must remember that the success of our economy is inextricably linked to the economies of other nations. Some would have us follow the ostrich approach: if we just stick our heads in the sand, the problems of other nations will simply go away. But history has repeatedly shown cutting ourselves off from the

world is a sure formula toward a less successful and prosperous country.²⁴

I did not vote in favor of the GATT implementing legislation for a number of reasons, none of which relate to the TRIPS Agreement. On the contrary, I am certain that the copyright and patent provisions of GATT are good for the United States—these provisions have always had the support of every major national copyright, patent, and bar association that takes an interest in patent and copyright law.²⁵ This support is derived from the recognition, of American businesses, that the United States was declining in several key high technological areas due in part to a lack of strong international patent protection, especially in Japan.²⁶

II. GATT, BILATERAL AGREEMENTS WITH JAPAN AND H.R. 1733: REQUIRING THE JAPANESE GOVERNMENT TO SOLVE MANY OF THE SIGNIFICANT PROBLEMS AMERICAN INVENTORS HAVE EXPERIENCED WITH THE JAPANESE PATENT SYSTEM

At the request of several Senators, the United States General Accounting Office (“GAO”) examined and compared patent protection for United States products in the United States, Europe, and Japan. The GAO released a report of its findings in July 1993.²⁷ In this report, the GAO surveyed 346 United States firms that were top United States patent holders in the chemical, semiconductor, and biotechnological fields.²⁸ These companies had extensive experience with the Japanese patent system—ninety-two percent of the responding companies had filed patent applications in Japan in the past ten years, and sixty-eight percent had ten or more Japanese patents.²⁹

A full sixty-five percent of the firms experienced at least one difficulty with the Japanese patent system that they considered to be

²⁴ *Hearings on Trade Policy Agenda and Trade Agreements Program Before the Subcomm. on Finance, 104th Cong., 1st Sess. (1995)* (statement of Ambassador Michael Kantor, United States Trade Representative).

²⁵ See *infra* notes 42-43 and accompanying text (discussing Japanese government’s attempt to solve bilateral patent disputes with United States).

²⁶ See *Comparative Patent Experiences, supra* note 21, at 13 (discussing Japanese patent protection for United States and European patents).

²⁷ See *id.* (comparing patent protection in Japan, Europe and United States).

²⁸ See *id.* at 22.

²⁹ See *id.*

a "very great" or "great" problem to their companies.³⁰ Companies were consistently dissatisfied with the cost and length of time to obtain a patent, the scope of the claims granted, and the inability to obtain patents for pioneering inventions in Japan.³¹ Companies experienced these problems two to eight times more often in Japan than in the United States or Europe.³²

The TRIPS Agreement in GATT was effective in forcing Japan to open its system and to establish more patent protection for United States inventors and patent holders.³³ It requires Japan to allow for at least limited discovery procedures in patent infringement cases and to increase the term for patent protection.³⁴ Perhaps most importantly, GATT provided uniform standards and procedures for the international enforcement of intellectual property rights.³⁵ Despite these improvements, GATT left a great deal to be done to make Japan's patent system user-friendly to American inventors and patent holders.³⁶

As part of its survey, the GAO asked companies to identify potential changes that would improve their patent experiences in Japan.³⁷ The survey resulted in six highly requested improvements and included the percentage of companies that believed such improvements would help them to a moderate, great, or very great extent.

³⁰ See *id.* at 27.

³¹ See *Comparative Property Rights*, *supra* note 21.

³² See *id.* at 26-27.

³³ See, e.g., Mitsuo Matsushita, *A Japanese Perspective on Intellectual Property Rights and the GATT*, 1992 COLUM. BUS. L. REV. 81, 86-87. The author notes that Japanese intellectual property laws substantially conform to the standards required by the TRIPS Agreement. *Id.* Japanese law complies with the twenty year protection period after filing and of priority after filing. *Id.*

³⁴ See Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods (Annex III), GATT Doc. MTN.TNC/W/FA (Dec. 20, 1991). This is the original draft of the discovery mandates that eventually made its way into the current law. *Id.*; see also, Charles L. Gholz, *Practicing Under the New Patent Interference Rules and New Rule 131*, 77 J. PAT. & TRADEMARK OFF. SOC'Y 858, 863 (1995) (describing sanctions for failure to provide foreign discovery).

³⁵ See Monique L. Corday, *GATT v. WIPO*, 76 J. PAT. & TRADEMARK OFF. SOC'Y 121, 133-37 (1994) (detailing enforcement of GATT provisions among foreign nations).

³⁶ See, e.g., Nhat D. Phan, Note and Comment, *Leveling the Playing Field: Harmonization of Antitrust Guidelines for International Patent Licensing Agreements on the United States, Japan, and the European Union*, 10 AM. U. J. INT'L L. & POL'Y 447, 472-79 (1994) (noting differences in Japanese and American patent system and suggesting changes to make Japanese system more suitable to American inventors).

³⁷ See *id.*

First, eighty-nine percent of the respondents believed that allowing the initial filing of a patent application in English would improve their patent experiences in Japan. Seventy-four percent believed that expediting the processing of patent applications (by requiring a Japanese Patent Office action within two years after the examination has begun) would improve the process. Sixty-seven percent suggested adopting a twelve-month grace period. Sixty-three percent felt that a doctrine of equivalents should be applied. Changing from a pre-grant opposition system to a post-grant opposition system found favor with forty-nine percent of the respondents. Finally, forty-six percent felt that there should be a change from a seven-year examination deferral to a three-year examination deferral.³⁸ As a sidenote to the survey, a number of United States companies have also complained about the Japanese Patent Office practice of granting compulsory licenses.³⁹

In addition to the GATT framework, the United States and Japanese governments have addressed several of these issues in direct negotiations that resulted in two bilateral accords.⁴⁰ In these agreements, dated January and August 1994, the Japanese government agreed to make the following four major substantive changes in their patent laws to benefit United States inventors: (1) permit United States inventors to file their applications in English, (2) conclude patent examinations within thirty-six months at the request of the applicant, (3) eliminate pre-grant oppositions and consolidate post-grant oppositions, and (4) end the practice of allowing dependent patent compulsory licensing.⁴¹

³⁸ See *id.*

³⁹ See *Impact on the United States of the New GATT Patent Accords Before the Subcomm. on International Economic Policy and Trade of the House Comm. on International Relations*, 104th Cong., 1st Sess. (1995) [hereinafter *Impact of GATT Patent Accords*] (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks).

⁴⁰ See Kenneth Parks et al., *Recent Developments, International Developments, Japan Bolsters Intellectual Property Rights*, 7 No. 3 J. PROPRIETARY RTS. 33, 33 (1995) (noting Japan's amended intellectual property laws in accordance with TRIPS); cf. Nancy J. Linck & John E. McGarry, *Patent Procurement and Enforcement in Japan—A Trade Barrier*, 27 GEO. WASH. INT'L L. & ECON. 411, 411-12 (1993-94) (enumerating deficiencies in Japan's law before TRIPS agreement and discussing proposed change that includes TRIPS agreement as well as World Intellectual Property Organization (WIPO), Draft Patent Law Treaty and these bilateral agreements).

⁴¹ See *Impact of GATT Patent Accords*, *supra* note 39 (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks); see also *Proposals to Implement New patent Term and Provisional Application Are Issued*, 49 Pat. Trademark & Copyright J. (BNA) No. 1208 at 149, 151 (1994); *Bill Would Provide Early Publication of Patents*, 50 Pat. Trademark & Copyright J. (BNA) No. 1231 at 114 (1995);

In exchange for these four concessions, the United States agreed to adopt a twenty year term from filing and eighteen month publication—two changes that the United States has either already made or wanted to make anyway.⁴² In sum, the Japanese government agreed to resolve more than half of the most egregious problems identified by American patent holders in exchange for two changes in the American system that have long had the independent support of the present and past presidential administrations, United States industry, and intellectual property associations.⁴³

The Japanese government has already fulfilled its obligations under the agreements.⁴⁴ In order to satisfy our end of the bargain, we must enact H.R. 1733 as soon as possible—the United States promised to comply by January 1, 1996.⁴⁵ It is clear that any future agreements with Japan that relate to intellectual property, and possibly any other subject matter, will hinge first upon the United States honoring its commitments in these accords.⁴⁶

Linck & McGarry, *supra* note 40, at 426-29 (discussing presumed impact at bilateral negotiations prior to actual accords); cf. Angela M. Beam, Comment, *Piracy at American Intellectual Property in China*, 4 INT'L L. & PRAC. 335, 336 (1995) (asserting that intellectual property rights are being trampled by Chinese persons who counterfeit).

⁴² See Byrne, *supra* note 3, at 129-30 (1995) (noting effective date of twenty-year term as June 8, 1995); see also Lynn H. Pasahaw et al., *Recent Events Relating to Biotechnology: Law and Litigation*, CA03 ALI-ABA 151, 157 (1995) (recognizing twenty-year term implementation); Berg et al., *supra* note 14, at 27 (reporting on proposed bill for publication of patent applications eighteen months after filing).

⁴³ See *supra* notes 36-42 and accompanying text (discussing United States and Japanese agreements on extending patent protection for United States patents); see also *Business in Brief*, ATLANTA J.-CONST., Aug. 17, 1994, at D3 (reporting signed accord that will effectively end Japan's practice of allowing third parties to oppose competitor's patent before it is granted); Randy Barrett, *Opposition Growing to Patent System Changes; Leading Lawmakers and Inventors Unite to Defeat White House Patent Policy*, WASH. TECH., Sept. 21, 1994 available in WESTLAW, ALLNEWSPLUS Library, 1994 WL 3744970, at * 2-3 (posting that Japanese-United States accord has complicated United States patent system); Teresa Riordan, *U.S., Japan Sign Accord Changing Patent Policies*, AUSTIN AMERICAN-STATESMAN, Aug. 17, 1994, at D2 (noting reduced review time for patent applications under accord).

⁴⁴ See *Business in Brief*, ATLANTA J.-CONST., Aug. 17, 1994, at D3 (noting that by April 1, 1995 agreement would be in place); see also *U.S., Japan Sign Agreement on Patents*, ORLANDO SENTINEL, Aug. 17, 1994, at A14 (establishing that Japan agreed to comply by April 1, 1995).

⁴⁵ See *U.S., Japan Sign Accord to Speed Patent Process*, STAR-TRIB. (Minneapolis-St. Paul), Aug. 17, 1994, at D2 (reporting that all provisions of agreement would be in place by January 1996); see also Jeff Leads, *U.S., Japan Sign Accord on Patent Practices*, SEATTLE TIMES, Aug. 17, 1994, at D1 (recognizing United States obligations under agreement); Linck & McGarry, *supra* note 40, at 428 (noting targeted implementation date as January 1, 1996).

⁴⁶ See Linck & McGarry, *supra* note 40, at 426-29 (discussing impact of bilateral agreement and emphasizing necessity of United States cooperation).

III. H.R. 1733: THE BASIC PROVISIONS

A brief explanation of H.R. 1733's provisions is necessary before describing the additional solutions it adopts. First, the substance and rationale of the bill's primary provision is the eighteen month publication of patent applications. Under current United States law, all applications for patents in the United States are kept secret by the Patent and Trademark Office ("PTO").⁴⁷ Publication does not occur until the patent is actually granted.⁴⁸ All of the major patent systems throughout the world, with the exception of the United States, publish applications within eighteen months of the earliest effective filing date. The current system places United States inventors at a disadvantage at a time when worldwide patent protection is becoming increasingly important.⁴⁹ For example, an invention that is the subject of a patent application in Japan will be published in the Japanese language in eighteen months.⁵⁰ Inventors reviewing the Japanese patent application disclosures

⁴⁷ 35 U.S.C. § 122 (1988); see also Byrne, *supra* note 3, at 131 (noting practices under current U.S. patent law such as secret nature of patent applications).

⁴⁸ See BRADFORD J. DUFT, *PREPARING THE PATENT APPLICATION, UNDERSTANDING BIOTECHNOLOGY LAW 94* (Gale R. Peterson ed., 1993) (noting filing and prosecuting procedure in procurement of patent); see also ROBERT P. MERGES, *PATENT LAW AND POLICY 30-32* (1992) (setting forth an overview of U.S. patent system); William N. Hulsey et al., *Recent Developments in Patent Law*, 4 TEX. INTELL. PROP. L. J. 99, 110-11 (1995) (discussing PTO examination guidelines).

⁴⁹ See James P. Chandler, *The Loss of New Technology to Foreign Competitors: U.S. Companies Must Search for Protective Solutions*, 27 GEO. WASH. J. INT'L L. & ECON. 305, 313-14 (1993-94) (discussing problems of protecting intellectual properties in United States); see also Divney & Connell, *supra* note 3, at 1071 (asserting need to level playing field by amending current U.S. patent laws); Paul A. Ragusa, *Eighteen Months to Publication: Should the United States Join Europe and Japan by Promptly Publishing Patent Applications?*, 26 GEO. WASH. J. INT'L L. & ECON. 143, 143 (1993) (positing that adoption of publication scheme used by Europe and Japan would allow U.S. patent market to be competitive on global market); Louis S. Sorell et al., *Changes to U.S. Patent Law Under GATT: Summary and Practice Recommendations*, in FIFTH ANNUAL PATENT PROSECUTION WORKSHOP, at 95, 95 (PLI Pat., Copyrights, Trademarks, and Literary Property Course Handbook Series, No. G4-3949, 1995) (concluding that amended patent laws would be beneficial to American companies competing in international marketplace).

⁵⁰ See 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, 867 (1994) (stating that Japanese law calls for patent applications to be laid open for public inspection); see also John C. Lindgren & Craig J. Yudell, *Protecting American Intellectual Property in Japan*, 10 SANTA CLARA COMPUTER & HIGH TECH L.J. 1, 18-19 nn.57, 58 (1994) (citing PATENT LAW, art. 65 (Japan)) (patent applications automatically published eighteen months from filing date); The Japanese Patent Office, *Obtaining Industrial Property Rights in Japan*, at 8 (1985) (asserting that all Japanese patent applications are published eighteen months after filing). See generally JAPANESE LAWS RELATING TO INDUSTRIAL PROPERTY (AIPPI Japan 1993) (setting forth english-language version of Japan's patent law).

will have the benefit of the early disclosure in Japan.⁵¹ This is especially beneficial to domestic inventors in Japan because they receive early disclosure of the technology in their own language.

In 1994, nearly forty percent of all applications filed with the PTO claimed foreign priority and, under the laws of the country of original filing, had to be published within eighteen months.⁵² Of the remaining applications, nearly one-third were granted within eighteen months.⁵³ More importantly, just over one-half of patent applications originally filed in the United States in 1993 were also filed in one or more foreign countries.⁵⁴ Conjunctively, these statistics reveal that *approximately eighty percent of all patents filed in the United States may be available to foreign inventors in their native tongue within eighteen months.*

However in the United States, American inventors and businesses are currently deprived of the benefit of an English language publication of the technology disclosed in an application for a patent until the patent is actually issued.⁵⁵ This situation provides foreign inventors with a clear advantage relative to the United States.

⁵¹ See Cohen, *supra* note 50, at 851 (recognizing that some new Japanese patent systems are catalysts for technological development); see also Linck & McGarry, *supra* note 40, at 414 (arguing that Japanese patent system benefits domestic industry at expense of foreign patent holders in Japan); Giunta & Shang, *supra* note 3, at 349 (noting that published applications are disclosed to public prior to being patented); Sue Holloway, Comment, "Black Box" Agreements: The Marketing of U.S. Technical Know-How in the Pacific Rim, 23 CAL. W. INT'L L.J. 199, 207 (1992) (positing that time lapses in high technology fields are crucial to future development).

⁵² Letter from the United States Patent and Trademark Office evaluating data in the Automated Patent System bibliographic file for patents granted in calendar year 1994; see also Jeffrey M. Samuels, *Understanding Basic Trademark Law*, in 1995 U.S. PATENT AND TRADEMARK OFFICE (PTO) PRACTICE 413 (PLI Pat. Copyrights, Trademarks, and Literary Prop. Course Handbook Series No. G4-3947, 163, 165, 1995) (finding that in 1994 PTO received 155,376 patent and trademark applications).

⁵³ See Samuels, *supra* note 52, at 419 (discussing statistical report on number of patents granted).

⁵⁴ WORLD INTELLECTUAL PROPERTY ORGANIZATION, INDUSTRIAL PROPERTY STATISTICS 1993 24-25 (1995); see Susan E. Gustad, *Casenotes and Comments, Legal Ownership of Plant Genetic Resources-Fewer Options for Farmers*, 18 HAMLINE L. REV. 459, 461 (1995) (noting that in 1993, PTO received about 188,000 applications); Laurence Smith, *Patent Examination in the U.S. Patent and Trademark Office*, in FUNDAMENTALS OF PATENT LAW AND PRACTICE 27, 29 (1994) (finding average patent application pendency time of 18 months, from filing to issue or abandonment, in United States).

⁵⁵ Marvin Motsenbocker, Comment, *Proposed Changes to Japanese and United States Patent Law Enforcement Systems*, 3 PAC. RIM L. & POL'Y J. 389, 395 (1995) (recognizing that Japan has recently begun to accept applications in English); see Andrew Pollack, *U.S. Agreed to Alter Patents, Period of Coverage*, N.Y. TIMES, Jan. 20, 1994, at D2 (noting that Japanese Patent Organization (JPO) only accepted patent applications in Japanese). But see 35 U.S.C. § 100 et. seq. (1988) (exchanging United States patent term length for Japan's acceptance of applications in English).

H.R. 1733 provides American inventors with a prompt English-language publication of current technology.⁵⁶ Inventors would no longer be required to wait until a patent is granted to gain access to that technology.⁵⁷ Technology and ideas that would otherwise be unavailable because a patent is not granted, might also become available. American inventors would be able to take advantage of this earlier access to English-language patent application technology and build upon it more rapidly than they can in the current system. In this way, the Constitutional objective to “promote the progress of science and useful arts” is advanced.⁵⁸

Eighteen month publication helps inventors avoid the commitment of substantial resources to develop an invention based on an incomplete, erroneous assessment of its patentability.⁵⁹ In this regard, early publication provides the public an enhanced opportunity to submit prior art—relevant, prior technical information—to the PTO in connection with pending applications.⁶⁰ In some technologies, this provides a mechanism to bring the best and closest prior art to the attention of the PTO while applications are pending.

⁵⁶ See H.R. 1733, 104th Cong., 1st Sess. (1995) (posing amendments to 35 U.S.C. § 119(B) to require translation upon request).

⁵⁷ See *id.* (calling for publication of applications eighteen months after filing, thus giving inventors access to technology prior to patent protection).

⁵⁸ U.S. CONST. art. I, § 8. This section reads in pertinent part: “[t]o 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.” *Id.*; see *Gibbons v. Ogden*, 22 U.S. (9 Wheat) 1, 45 (1824) (asserting nationwide protection for inventors under U.S. Constitution); *John v. Orth, Thinking About Law Historically: Why Bother?*, 70 N.C. L. REV. 287, 291 (1991) (discussing how framers of Constitution recognized ‘useful arts’ to include those of inventors). See generally PAUL GOLDSTEIN, COPYRIGHT, PATENT, TRADEMARK AND RELATED STATE DOCTRINES CASES AND MATERIALS ON THE LAW OF INTELLECTUAL PROPERTY 20-21 (3d ed. 1993) (recognizing intent of framers of Constitution with respect to this section).

⁵⁹ See, e.g., *Patent Legislation: Hearings on H.R. 1732 and H.R. 1733 Before the Subcomm. on Courts and Intellectual Property of the House Comm. on the Judiciary*, 104th Cong., 1st Sess. (1995) [hereinafter *Patent Legislation: Hearings on H.R. 1732 and H.R. 1733*] (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks) (asserting that H.R. 1733 would permit greater third party participation).

⁶⁰ See James Anglehart, *Extending the International Phase of PCT Applications*, 77 J. PAT. & TRADEMARK OFF. SOC’Y 101, 104-05 (1995) (noting wide-spread availability of published patent applications producing greater efficiency in technology); see also Donald S. Chisum, *The Harmonization of International Patent Law*, 26 J. MARSHALL L. REV. 437, 440 (1993) (discussing effects of early publication as being improved patent examination quality); Robert W. Pritchard, *The Future Is Now—The Case for Patent Harmonization*, 20 N.C. J. INT’L L. & COM. REG. 291, 303 (1995) (positing that American inventors would benefit from knowing possibilities of patent issuance before undertaking costly procedural steps).

H.R. 1733 also promotes more efficient use of limited research and development resources by preventing duplication.⁶¹ Finally, together with the twenty year term, early publication virtually eliminates the submarine patent problem, explained *infra*.

In return for disclosure that would be made by virtue of early publication of patent applications, successful patent applicants would be given provisional rights to obtain compensation for any use of an invention disclosed in the application for patent for the time period from publication to grant.⁶² H.R. 1733 contains a "provisional rights" section that allows the patent applicant—once his patent issues—to sue for a reasonable royalty, anyone who may have used his patent after it was published.⁶³ This is a right that patent applicants do not have today.

Under current law, a problem arises if the patent application is published but does not issue for twelve months. The notice "Patent Pending," carries little weight. If someone uses a patent before it is issued, the applicant has no rights to a reasonable royalty fee.⁶⁴ Once the patent is issued, the unauthorized usage can be stopped and the applicant can recover for the time the invention was used after the patent is issued, but nothing for use prior to issue.⁶⁵

In conjunction with a twenty year term, provisional rights would ensure that each successful patent applicant obtains *at least* eighteen and a half years of patent rights (provisional rights from publication at eighteen months until grant and full rights upon grant) regardless of patent pendency.⁶⁶ If a provisional patent application is filed or if publication is requested earlier than the eighteenth month, a patent holder could obtain up to nineteen and a half years or more of patent rights.

⁶¹ See H.R. 1733, 104th Cong., 1st Sess. (1995) (providing public with early disclosures of technology—foreign or domestic); see also *Patent Legislation: Hearings on H.R. 1732 and H.R. 1733*, *supra* note 59 (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks) (supporting bill that provides for efficiency in technological advances).

⁶² See H.R. 1733, 104th Cong., 1st Sess. § 5 (1995) (allowing for recovery in time period between publication and patent issuance).

⁶³ See *id.*

⁶⁴ See William J. Brunet, *Impact of Patent Itemization Treaty on Drafting and Prosecuting U.S. and Foreign Patent Applications* in GLOBAL INTELLECTUAL PROPERTY SERIES: PRACTICAL STRATEGIES - - PATENT, at 177, 319 (PLI Patent, Copyrights, Trademarks, and Literary Property Course Handbook Series, 1991) (discussing advantages of early publication system while undermining current practices that affect no pre-patent protections).

⁶⁵ 35 U.S.C. § 281 (1988).

⁶⁶ See H.R. 1733, 104th Cong., 1st Sess. (1995).

Another provision of H.R. 1733 amends Title 35 to provide a prior art effect for published applications. To that end, prior art would include inventions described in an application for patent, filed in the United States by another and published pursuant to this law.⁶⁷

H.R. 1733 takes an additional step to protect those who may not want their application published. It proposes to amend Title 35 to enable an independent inventor to defer publication until three months after an initial patentability determination by the PTO.⁶⁸ To be eligible for this provision, an inventor must certify that he or she has not also filed the application in a foreign country (where it will inevitably be published within eighteen months). Situations are extremely rare where an independent inventor who is actively seeking an early PTO action will not obtain one before three months prior to the eighteenth month of pendency of his/her application.⁶⁹ This provision, however, ensures that such an action will be received by qualified independent inventors in a timely manner. In this way, the independent inventor is given ample opportunity to withdraw his application and to pursue the trade secret route when patentability is unlikely.

The other major component of H.R. 1733 is its refinement of the twenty year term to ensure that virtually every American inventor will gain in patent term under the new system.⁷⁰ To further ensure patent protection, it would extend the twenty year term of a patent for up to ten additional years to compensate for time lost when an applicant is involved in a proceeding to determine who is the first to invent, for time lost during a successful appeal of an examiner's decision, and for time lost due to a secrecy order.⁷¹ Current law allows extensions for only up to five years.⁷² In addition, H.R. 1733 allows up to ten years of recovery for time lost due to an unusual administrative delay of the PTO, a protection not

⁶⁷ *See id.*

⁶⁸ *See id.*

⁶⁹ *Id.*; see *Patent Legislation: Hearings on H.R. 1732 and H.R. 1733, supra* note 59 (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks) (qualifying rare circumstance to be one where independent inventor has not received some indication from PTO on his/her application prior to 18 months).

⁷⁰ *See* H.R. 1733, 104th Cong., 1st Sess. (1995).

⁷¹ *Id.*

⁷² 35 U.S.C. § 120 (1988).

afforded under current law.⁷³ This protection will further ensure that the applicant will not suffer any loss of term.

IV. UNIVERSAL SUPPORT FOR GATT CHANGES PROPOSED IN H.R. 1733

As stated earlier, the twenty year term implemented in the GATT TRIPS Agreement and the eighteen month publication provision in H.R. 1733 have long had the support of United States Presidents, Commissioners of Patents and Trademarks, and the private sector.⁷⁴ A tiny but vocal minority in the patent community has suggested that the twenty year term was somehow hidden or slipped into the GATT implementing legislation. Nothing could be further from the truth.⁷⁵

In 1986, the United States successfully urged GATT members to include intellectual property protection provisions in the Uruguay Round negotiations.⁷⁶ By 1991, the GATT members had reached the Agreement on Trade-Related Aspects of Intellectual Property Rights or TRIPS.⁷⁷ Among the provisions of this initial agreement was a proposal to adopt a twenty year term. Thus, the twenty year term has been a constant since the negotiations began more than nine years ago.

The twenty year term provisions in the TRIPS Agreement were also widely available to the members of Congress and the public. The July 1993 GAO Report referenced earlier noted that the current GATT/TRIPS accord required the United States to change its patent laws and procedures to grant patent protection for twenty years from the filing date.⁷⁸ It was also clear from speeches made by members of Congress to the House of Representatives that it

⁷³ See *id.*

⁷⁴ See Sabatelli & Rasser, *supra* note 4, at 34-38 (discussing need for patent harmonization and United States government recognition thereof); see also Hanns Ullrich, *TRIPS: Adequate Protection, Inadequate Trade, Adequate Competition Policy*, 4 PAC. RIM L. & POL'Y J. 153, 178 (1995) (noting call for legislation by U.S. authorities and describing effect of TRIPS as harmonizing international intellectual property law). See generally Kate H. Murashige, *Harmonization of Patent Laws*, 16 Hous. J. INT'L L. 591, 597-11 (1994) (arguing for international harmonization of patent laws).

⁷⁵ See Sorell et al., *supra* note 49, at 95 (finding that 20 year patent term provision had been pending in Congress for eight years without passing).

⁷⁶ *Comparative Patent Experiences*, *supra* note 21.

⁷⁷ See *id.* at 70.

⁷⁸ See *id.*

was widely known well in advance that a twenty year term was to be implemented.⁷⁹

Finally, on August 12, 1994, more than three and a half months before the House voted on GATT, the Senate and House held a public Joint Hearing on the TRIPS Agreement. Several witnesses testified both for and against the twenty year term, including Mr. Bruce Lehman, the Assistant Secretary of Commerce and Commissioner of the Patents and Trademarks; Representative Dana Rohrabacher; Mr. Gerald Mossinghoff, President of the Pharmaceutical Research and Manufacturers of America and former Commissioner of Patents and Trademarks; Mr. Kenneth F. Addison, Jr., on behalf of the United Inventors Association of the United States of America; and Mr. Robert E. Muir, on behalf of the National Association of Manufacturers.⁸⁰

After reviewing this testimony as well as the substance of eight years of TRIPS negotiations, the Members of Congress voted overwhelmingly to approve it. The GATT implementing legislation passed in the Senate by more than a three-quarters majority and in the House by nearly a two-thirds majority.⁸¹

Both the twenty year term and the eighteen month publication provision have the strong support of the current and previous presidential administrations and Commissioners of Patents and Trademarks. Five of the past six living Commissioners of Patents and Trademarks jointly issued a letter to the President, the Senate, and the House of Representatives urging the United States to adopt the twenty year term as drafted in the GATT implementing legislation.⁸²

Support from previous administrations for these provisions dates back to 1966, during the Johnson Administration. In a re-

⁷⁹ See, e.g., 140 CONG. REC. E1,526 (July 21, 1994) (statement of Rep. Dana Rohrabacher). In that address, Rep. Rohrabacher noted: "The GATT proposal is to make this [patent protection] 20 years from the time of filing." *Id.*

⁸⁰ *GATT and Intellectual Property: Joint Hearings Before The Subcomm. on Intellectual Property and Judicial Administration of the House Comm. on the Judiciary and the Subcomm. on Patents, Copyrights, and Trademarks of the Senate Comm. on the Judiciary*, 103d Cong., 2d Sess. (1994).

⁸¹ See *supra* note 3, and accompanying text.

⁸² Members of the United States Senate and Members of the United States House of Representatives include: William E. Shuyler, Jr., Commissioner of Patents and Trademarks from 1969-1971; C. Marshall Dann, Commissioner of Patents and Trademarks from 1974-1977; Gerald J. Mossinghoff, Commissioner of Patents and Trademarks from 1981-1985; Donald J. Quigg, Commissioner of Patents and Trademarks from 1985-1989; Harry F. Manbeck, Jr., Commissioner of Patents and Trademarks from 1990-1992 to the Honorable William J. Clinton.

port titled *"To Promote The Progress of . . . Useful Arts" In An Age of Exploding Technology*, the President's Commission on the Patent System advocated both early publication and a twenty year term.⁸³

In 1992, the Bush Administration released a comprehensive study of the United States patent system, also recommending early publication and a twenty year term.⁸⁴ Following the recommendations of the Bush Administration studies, the Clinton Administration also strongly endorsed these changes.⁸⁵

The twenty year term in GATT and the 18-month publication provision in H.R. 1733 also has the backing of United States industry and of every major patent, copyright, and bar association that has expressed an opinion on these topics. The American Intellectual Property Law Association and the Intellectual Property Owners Association, two of the largest and most respected intellectual property organizations, both embraced these concepts long before the TRIPS Agreement was adopted and H.R. 1733 was drafted.⁸⁶ The American Bar Association is also a supporter of these provisions.⁸⁷

⁸³ See Report of the President's Commission on the Patent System, *"To Promote The Progress of . . . Useful Arts" In An Age of Exploding Technology* 2 (1966). Recommendation VII states, "Publication of a pending application shall occur eighteen to twenty-four months after its earliest effective filing date, or promptly after allowance or appeal, whichever comes first. An applicant, for any reason, may request earlier publication of his pending complete application." *Id.* Recommendation XVIII states, "The term of a patent shall expire twenty years after its earliest effective U.S. filing date." *Id.* at 16-17, 33-34.

⁸⁴ See *Advisory Commission on Patent Law Reform*, A Report to the Secretary of Commerce 3 (1992) (recommending changes in United States patent law to effectuate greater worldwide harmonization in patent laws); see also *Patent Harmonization Act: Joint Hearings of the Senate Comm. on the Judiciary and the Subcomm. on Intellectual Property and Judicial Administration of the House Comm. on the Judiciary*, 102d Cong., 2d Sess. (1992) [hereinafter *Patent Harmonization Act: Joint Hearing*].

⁸⁵ See *Patent Legislation: Hearings on H.R. 1732 and H.R. 1733*, *supra* note 59 (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents & Trademarks); see also *Impact of GATT Patent Accords*, *supra* note 39 (statement of Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents & Trademarks). See generally *U.S. Patent Term Developments*, 7 No. 2 J. PROPRIETARY RTS. 32 (1995).

⁸⁶ See *Patent Term and Publication Reform Act of 1994: Hearings on S. 1854 Before the Subcomm. on Patents, Copyrights & Trademarks of the Senate Comm. on the Judiciary*, 104th Cong., 1st Sess. (1994) (testimony of Gary L. Newston, President of the American Intellectual Property Law Ass'n) (supporting increased harmonization of global patent laws via congressional action enacting S. 1854); see also *Patent Harmonization Act: Joint Hearing*, *supra* note 84 (statement of Robert B. Benson on behalf of American Intellectual Property Law Association and position statement by Intellectual Property Owners Association).

⁸⁷ See, e.g., American Bar Association Section of Intellectual Property Law Resolutions, letter to former House Majority Leader Richard Gephardt; *Patent Legislation: Hearings on H.R. 1732 and H.R. 1733*, *supra* note 59 (June 8, 1995) (statement of Thomas E. Smith, Chair, Section of the Intellectual Property Law Section of the American Bar Ass'n).

Key industry groups affected by changes in patent laws also support these provisions. The National Association of Manufacturers, with over 13,500 members, advocates the changes implemented by GATT and proposed in H.R. 1733.⁸⁸ While a handful of biotechnology companies oppose these changes, H.R. 1733 also has the endorsement of national Biotechnology Industry Organization ("BIO"), by far the largest association in the industry with over 560 members in forty-seven states and twenty countries. In written testimony submitted to the House Subcommittee on Courts and Intellectual Property, BIO expressed that it "will support the twenty year patent term" and "that there would be no need to set a minimum 17 year patent term from grant," so long as proper safeguards are adopted to prevent loss of term for delays beyond the control of diligent patent applicants.⁸⁹

There is little doubt as to why these changes have nearly universal support of American industry groups, businesses, and independent inventors—because together, they solve the disastrous problem of submarine patenting while granting an increased patent term to more than eighty-seven percent of all patentees.⁹⁰

⁸⁸ NATIONAL ASSOCIATION OF MANUFACTURERS, REPORT ON DOMESTIC INDUSTRY RESPONSE TO KEY HARMONIZATION ISSUES 3, 11 (Apr. 2, 1990); see also National Association of Manufacturers Response to Request of the Commissioner of Patents and Trademarks for Public Comments on Subjects Before the Advisory Commission on Patent Law Reform, 19-27 (July 1991); *Patent Harmonization Act: Joint Hearing* (Apr. 30, 1992) (statement of Robert A. Armitage, Vice President Corporate Patents & Trademarks, The UPJOHN Company, on behalf of Nat'l Ass'n of Mfrs.).

⁸⁹ See *Patent Legislation: Hearings on H.R. 1732 and H.R. 359 Before the Subcomm. on Courts and Intellectual Property of the House Comm. on the Judiciary*, 104th Cong., 1st Sess. (1995) [hereinafter *Patent Legislation Hearings on H.R. 1732 & H.R. 359* (statement of Biotechnology Industry Organization (BIO)); see also Letter from Carl B. Feldbaum, President & Charles E. Ludlam, Vice President for Government Relations, *Biotechnology Industry Organization*, to Mickey Kantor, United States Trade Representative (June 27, 1994) (on file with *Harvard University Journal of Law & Technology*).

⁹⁰ See Mark Lemley, *An Empirical Study of the Twenty-Year Patent Term*, 22 AIPLA Q.J. 369, 392-93 (1994) (concluding most patentees would benefit from 20 year patent term); see also *Hearings on H.R. 359 Before the Subcomm. on Courts and Intellectual Property of the House Comm. on the Judiciary*, 104th Cong., 1st Sess. (1995) (testimony of Professor Mark A. Lemley) (arguing that 20 year patent term will cause patent owner to gain, not lose, protection). But see Jane E.R. Potter & Jean B. Fordis, *The Impact of GATT and TRIPS on U.S. Patent Law*, 10 ME. B.J. 400, 401 (1995) (stating new law will not eliminate submarine patents); see also Richard C. Wilder, *The Effect of the Uruguay Round Implementing Legislation on United States Patent Law* 36 IDEA: J.L. & TECH. 33, 49 (1995) (believing problem of submarine patents will continue even if legislation passes).

V. THE SUBMARINE PATENT PROBLEM: UNFAIR COST TO CONSUMERS

The United States Constitution grants Congress the authority to enact laws "[t]o 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."⁹¹ The United States patent system is designed to cause inventors to disclose inventions and thereby achieve this goal to promote science and the useful arts.⁹² In return for their disclosure, inventors are granted a limited monopoly to exploit their inventions.⁹³

However, the old seventeen year term actually discouraged the timely disclosure of new technology and interfered with the patent system's primary objective of stimulating progress. Because an inventor is granted exactly seventeen years from the time a patent is granted, regardless of how long he or she delays, the inventor has no incentive to expedite the approval process of his or her patent. Under the old system, patent attorneys routinely extended deadlines for up to six months to respond to PTO actions.⁹⁴

Even worse, the seventeen year term was exploited and abused by some inventors, at a cost of hundreds of millions of dollars to industries, and ultimately consumers. This type of practice is called submarine patenting because the patent surfaces without warning to the surprise and detriment of entire industries.⁹⁵

By filing successive continuing applications on the same invention, the original applications remain secretly submerged in the PTO year after year. Under the old system, this was a legal means of intentional delay perpetrated by the inventor. The patent application was delayed by the applicant until companies grew

⁹¹ U.S. CONST. art. I, § 8, cl. 8.

⁹² See, e.g., *Scott Paper Co. v. Marcalus Mfg. Co.*, 326 U.S. 249, 255 (1945) (means to promote Constitution's goal is patent system).

⁹³ See, e.g., Amy E. Carroll, *Not Always the Best Medicine: Biotechnology & The Global Impact of U.S. Patent Law*, 44 AM. U. L. REV. 2433, 2443 (1995) (explaining limited monopoly granted by patent).

⁹⁴ See, e.g., Lemley, *supra* note 90, at 386 (1994) (explaining that six month delay by patent attorney was allowed under old law and lead to increased cost to client).

⁹⁵ See *Joint Hearings on GATT TRIPS Implementing Legislation Before the of the Subcomm. on Patents, Copyrights and Trademarks of the Senate Comm. on the Judiciary and the Subcomm. on Intellectual Property & Judicial Administration of the House Comm. on the Judiciary*, 103d Cong., 2d Sess. (1994) (statement of Robert E. Muir, General Patent Counsel, Caterpillar, Inc., on behalf of National Assoc. of Mfrs.) (asserting that 20 year patent term would halt emergence of submarine patents); Dana Rohrabacher & Paul Crilly, *The Case for a Strong Patent System*, 8 HARV. J.L. & TECH. 263, 267-69 (1995) (detailing system of submarine patenting).

around some remotely related technology or until existing companies began using some distant form of the inventor's original claim. Once an industry was firmly depended upon the technology, the inventor stopped the delays and took the necessary actions to get the patent granted (sometimes up to 30 or 40 years after filing). In a form of extortion, the inventor then demanded excessive licensing fees for continued use of the now patented process. This comes as a brutal surprise to companies who manufacture in the United States. Because it affects entire industries, the cost is ultimately shouldered by the American consumers.

The most extreme and successful abuse of the seventeen year term involves a fairly well-known United States inventor who may have helped pay for full page advertisements in leading national newspapers opposing changes in United States patent law, particularly the twenty year patent term, in order to try and preserve this abusive practice.⁹⁶ In an article published in May 1993, *The American Lawyer* explained how this inventor made millions of dollars by exploiting a submarine patent.⁹⁷

Submarine patent abusers do not disclose anything nor do they promote the progress of science and the useful arts. Just the opposite is true. They deliberately keep their "inventions" secret, thus depriving the public from using them.⁹⁸ Then, after decades of delay, they cause the patents to issue so that they can collect "royalties" from existing businesses. These submarine patents are used as strategic weapons against legitimate businesses who have used related technology to the benefit of their industries and their consumers.

This abuse of the United States patent system has been around for a long time. In fact, it was cited as a major problem as long ago as the 1966 Report of the President's Commission on the Patent

⁹⁶ See, e.g., Stewart Yerton, *The Sky's The Limit*, AMERICAN LAW., May, 1993, at 64 (detailing inventor, Jerome Lemelson's rise to wealth as result of invention of "machine vision," integral to bar code scanners, etc., and subsequent patent manipulation).

⁹⁷ See *id.* at 69 (explaining how Lemelson's attorney approached major corporations, informing them that bar code scanners and other devices used by them infringed upon Lemelson's patent, resulting in many large settlements, gaining 400 - 450 million for Lemelson in 1992 alone).

⁹⁸ See Rohrabacher & Crilly, *supra* note 95, at 267 (acknowledging allegation delaying issuance of patent may be inventor's fault); see also James P. Chandler, *The Loss of New Technology to Foreign Competitors: U.S. Companies Must Search for Protective Solutions*, 27 GEO. WASH. J. INT'L L. & ECON. 305, 323 (describing problem of submarine patents).

System.⁹⁹ There is even evidence of submarine patenting as far back as 1911, when George Selden used such techniques to gain control of the early automobile industry until Henry Ford successfully challenged his control.¹⁰⁰

The problem of extreme delays in the issuance of patents has also been recognized in the court system, and the courts have held that the proper solution rests with an action by Congress.¹⁰¹ Ironically, even the inventor that was the subject of the *American Lawyer* article argued to a court that only Congress could solve the problem of submarine patents.¹⁰² As you might expect, he vehemently opposes H.R. 1733, Congress' proposed solution.

Even a single submarine patent can wreak havoc on an industry as large as automobile manufacturers. This destructive practice also led to an unsuccessful challenge of every computer being produced by the popular computer manufacturer, Apple Computer, Inc. The patent in question had been filed in 1955 and issued in 1993.¹⁰³ While not all examples of submarine patenting are this

⁹⁹ Report of the President's Commission on the Patent System, "To Promote The Progress of . . . Useful Arts" In An Age of Exploding Technology, 33-34 (1966). The term of a United States patent now extends for a period of 17 years from the date of issuance. *Id.* Measuring the patent term from this point encourages deliberate delays in the prosecution of applications, particularly those filed primarily for speculative reasons and those having little immediate value. Another effect can be the filing of continued applications solely to delay the start of a patent term. *Id.*

The proposed change [to a 20 year from filing system] would induce the applicant promptly to present claims that he believes patentable and to avoid delaying the prosecution of the application. *Id.* Since the term of a patent stemming from a continuing application would expire on the same day as one issued on its parent application, there would be less incentive to use a continuing application for the purpose of delay. *Id.*

¹⁰⁰ See Lemley, *supra* note 90, at 378 (noting historical example of submarine patenting by George Selden, patent attorney and inventor, who obtained patent on prototype automobile in 1895).

¹⁰¹ *Application of Hilmer*, 424 F.2d 1108, 1113-14 n.6 (C.C.P.A. 1970). "If the law as it has been written by Congress creates anomalous situations, then it is for Congress to decide whether to change the law." *Id.*; *Application of Henriksen*, 399 F.2d 253, 262 (C.C.P.A. 1968). It is "unfortunate that a patent should be granted on an application . . . filed over 20 years ago . . . [i]t is our view, as the judiciary, that it is for the Congress to decide, with the usual opportunity for public hearing and debate, whether such a restriction as sought by the board is to be imposed." *Id.*

¹⁰² *Ford Motor Co. v. Lemelson*, Nos. CV-N-92-613-LDG(PHA), CV-N-92-545-LDG(PHA), 1995 U.S. Dist. LEXIS 12015, at *11 (D. Nev. June 16, 1995) (stating Jerome Lemelson's position that "courts are without any power to limit continuing application practice, and that any limitations must be imposed by Congress").

¹⁰³ See *Patent Legislation: Hearings on H.R. 1732 and H.R. 359*, *supra* note 89 (testimony of Edward Stead, Vice President, General Counsel and Secretary, Apple Computer, Inc. on behalf of Information Technology Industry Council) (illuminating circumstances surrounding patent infringement case brought against Apple Computer, Inc. wherein patent was issued in 1955 and not issued until 1993, 35 years later).

egregious, in each case the practice inhibits the goal of the United States patent system at the expense of the consuming public.

More examples of submarine patenting can be cited. The above illustrations, however, indicate that the significance of these submarine patents lies not in the number of such cases but in the destructive effects caused by them. The exact number of intentional submarine patent instances cannot be estimated to a degree of certainty—"intentions" are too subjective to determine and quantify. However, one study attempted to measure a proxy for submarine patents and estimated that between 1.6% to 20% of the patents in a particular industry could be submarine patents.¹⁰⁴ Furthermore, of the few patents that would lose four or more years under the present system, between 25-67% could be classified as submarine patents.¹⁰⁵

In addition, the testimony of one independent inventor, at a hearing before the House Subcommittee on Courts and Intellectual Property, reveals that submarine patenting may be a fairly common practice—at least on a small scale. Mr. Bill Budinger made two important points at that hearing. First, Mr. Budinger stated that he knew of approximately three hundred important patents issued by the United States PTO to foreign companies in the two years prior to the change that he believed were deliberately delayed. All of these patents will expire in the United States five to twenty-five years after they expire in their home countries. Thus, technology in these areas will be frozen in this country for five to twenty-five years while it advances in the foreign countries.¹⁰⁶ Secondly, Mr. Budinger relayed how he employed submarine patent techniques to elongate the patent term on his first invention and why it is an option that some inventors would like to keep open.¹⁰⁷

As long as there is a filing system based upon time of issuance, this abuse remains a possibility. Only Congress can solve the

¹⁰⁴ See, e.g., Lemley, *supra* note 90, at 414-15 (setting forth statistics illustrating number of submarine patents by industry).

¹⁰⁵ *Id.* at 393.

¹⁰⁶ See *Patent Legislation: Hearings on H.R. 1732 and H.R. 359, supra* note 89 (testimony of William D. Budinger, Chairman and CEO, Rodell, Inc.) (stating that 17 year patent term suggested by H.R. 359 would make American companies vulnerable to foreign competition).

¹⁰⁷ See *id.* (stating that record confirms what Budinger knew from experience—that applicants will not pursue issuance of patents because protection starts at time of filing).

problem of submarine patenting.¹⁰⁸ Congress began that solution by implementing the twenty year term in the GATT implementing legislation. Congress can continue to solve this problem by rejecting H.R. 359 and passing H.R. 1733.

VI. VIRTUALLY ALL PATENTEES GAIN PATENT TERM UNDER THE PRESENT SYSTEM AND H.R. 1733

Aside from the obvious goal to preserve the opportunity to engage in submarine patenting, there is no justification for rolling back the gains and reverting back to the old system. Claims have been made that the old system better preserves patent term.¹⁰⁹ However, a twenty year term will result in an increase in patent protection for the vast majority of patent applicants.

Clearly, any patent that is granted in less than three years will result in an increase under the present system compared to the old system. Although the figures for fiscal year 1995 are not yet available, the PTO reported that the average time period for overall pendency (from filing to issuance or abandonment) for patent applications decreased from nineteen and a half months in fiscal year 1993 to nineteen months in fiscal year 1994.¹¹⁰ For computers, pendency was reduced from twenty-eight and a half months to twenty-six and a half months in 1994. Finally, biotechnology patent pendency was reduced from twenty-two and a fifth months to twenty and four-fifths months. It is clear from these figures that the average patent holder will gain patent protection under the present system, even in industries where patents traditionally take longer to issue.

Mark Lemley, an Associate Professor at the University of Texas School of Law recently conducted a comprehensive independent study comparing these alternatives. This is the only properly con-

¹⁰⁸ See *supra* note 51 and accompanying text (discussing benefits to Japanese patent publication system).

¹⁰⁹ See *Kingsdown Medical Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 874 (Fed. Cir. 1988) (stating it's not "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"), *cert. denied*, 490 U.S. 1067 (1989); see also *State Industries, Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985). "One of the benefits of a patent system is its so-called 'negative incentive' to 'design around' a competitor's products, even when they are patented, thus bringing a steady flow of innovations to the marketplace." *Id.*

¹¹⁰ *Working for Our Customers, A Patent and Trademark Office Review* (Fiscal Year 1994), U.S. Dep't of Commerce, U.S. Patent and Trademark Office, at 9 (1994).

trolled and credible study available which compares the two systems.¹¹¹ Professor Lemley studied 2,081 recently issued and randomly selected patents. His testimony before the Subcommittee revealed five situations. First, under the most realistic set of assumptions, the average patent owner gains an average of 426 days or fourteen months of protection over the seventeen year term. Even under the most pessimistic assumptions, he or she gains 253 days or eight and a half months. Second, under the most realistic set of assumptions 87.1% of patent owners in the United States gain term under the twenty year term. Even under the most pessimistic assumptions, 76.8%, over three-quarters, gain term. Third, under the realistic assumptions, only 2.2% of patent owners would lose significant term (i.e. two or more years of protection). Under the most pessimistic assumptions, only 5.3% of all American patent owners would lose two or more years. These numbers do not even take into account the various term extension provisions that have been enacted into the new law to protect against delay due to interference, and delay due to appeal. They also do not take into account proposed additional provisional protection in H.R. 1733. Fourth, for 48% of the patents that would lose significant term, the cause for the delay was the applicant himself or herself abandoning and refiling the application in the PTO three or more times during the course of prosecution. These delays are the result of the patent owner or applicant's inability to shorten or reduce the delay, not the result of inherent delays in the patent process, and not the result of the fault of the PTO. Fifth, there is no evidence that the most important patents are the ones that take longer in the PTO. While it is impossible to identify the "most important" patents, litigated patents—the patents that applicants care enough about actually to take to court to enforce—can be identified. There is no difference between the litigated patents that are actually enforced as a result of being held valid by the courts and those that are found to be invalid. They take on average almost exactly the same amount of time. Indeed, some validly litigated patents, patents that were of sufficient im-

¹¹¹ See, e.g., Lemley, *supra* note 90, at 393 (asserting that New York study claiming average pendency is close to seven years is incorrect).

portance to invest the money in enforcing them against infringers, issued in the Patent Office in as little as eight months.¹¹²

Professor Lemley also found that the benefits of the twenty year term were consistent across industry lines. He classified each patent in his study as a general, electrical, chemical, software, or biotechnology patent. In every industry where conclusions could be drawn, a large majority of patentees would gain protection under the twenty year term. The data for the biotechnology industry was indeterminate to draw a conclusion as to whether term was gained under the most realistic set of assumptions.¹¹³

Professor Lemley's conclusions prove that nearly all patent holders will gain term under the current twenty year term. The benefits to the American consumers and to American businesses from eliminating the submarine patent problem simply outweigh the loss of term to a fraction of patentees. With the incentive for submarine patents removed, even this small fraction is likely to disappear.

CONCLUSION

Some changes in our patent system are necessary to meet the challenges of the 1990s and the next century—challenges both in the global marketplace and at home. The changes proposed in H.R. 1733 reflect a well-reasoned and informed approach to modernizing United States patent law. Together with the recent improvements implemented by GATT, H.R. 1733 will compel foreign countries to better accommodate American inventors, end the constant threat of submarine patenting, and increase patent term for most every successful patent applicant. The provisions of H.R. 359 would require the United States to violate international agreements, weaken the United States' position in future intellectual property negotiations, and encourage submarine patenting at a cost of potentially billions of dollars to consumers. For the United States to continue to move forward, the choice is clear.

¹¹² See *Patent Legislation: Hearings on H.R. 1732 and H.R. 359*, *supra* note 89 (statement of Professor Mark Lemley, Assistant Professor, University of Texas School of Law) (discussing his position that returning to 17 year patent term would be detrimental).

¹¹³ See, e.g., Lemley, *supra* note 90, at 415-16 (defining indeterminate as "not possible to predict with reasonable confidence that patentees will be either better or worse off under new law").