
COMMENT

PATENT NONUSE AND TECHNOLOGY SUPPRESSION: THE USE OF COMPULSORY LICENSING TO PROMOTE PROGRESS

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The U.S. Supreme Court has consistently and adamantly held that patents do not require patentees to use or commercialize their inventions. Rather, patents simply grant inventors the right to exclude others from using or producing their inventions. That exclusive right, once granted, cannot be taken away because of a right holder's failure to work the patent. Great societal harm results, however, when patentees fail to commercialize their patents or deliberately and strategically suppress technologies purely for financial gain.

This Comment argues that utilizing compulsory licensing to combat patent nonuse and technology suppression can help to better achieve the primary goal of the Intellectual Property Clause of the U.S. Constitution. Compulsory licensing that compensates inventors through reasonable and marketplace-based royalty rates will ensure that inventors continue to develop and disclose their research and discoveries to the public. Furthermore, by weakening intellectual property rights on a limited scale, Congress can ensure that patents are made available to the highest-value users who can best use these patents to achieve efficient societal innovation and progress. This Comment therefore questions why patentees are not required to at least make good faith efforts to practice their patents.

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INTRODUCTION

On March 19, 1787, the State of New York granted John Fitch one of the most famous state patents ever issued.¹ For a fourteen-year term, the government granted Fitch a legal monopoly and the right to be the sole and exclusive maker and user of steamboats in New York.² After only one year, however, the legislature repealed the grant because Fitch failed to adequately work the patent.³

Instead of allowing the invention and its technology to enter the public domain, the legislature subsequently awarded Robert R. Livingston the exclusive right to the steamboat “for the next 20 years.”⁴ But over the next five years, Livingston also failed to produce results that satisfactorily

¹ See 1 ERNEST BAINBRIDGE LIPSCOMB III, LIPSCOMB’S WALKER ON PATENTS § 1:7 (3d ed. 1984) (explaining the context and procedural history surrounding Fitch’s original patent “for the sole and exclusive right and privilege of making and using boats, propelled by fire or steam, within the waters of New York State,” and subsequently issued patents).

² *Id.*

³ *Id.*

⁴ *Id.*

benefited society.⁵ Thereafter, in 1803, when Robert Fulton produced the *Clermont*,⁶ a steamboat that encompassed the technology claimed in Livingston's patent, New York not only extended the patent for another twenty years, but also granted both Fulton and Livingston the right to produce steamboats and exclude others from using the invention.⁷

At first blush, the steamboat might seem completely irrelevant to modern-day patent jurisprudence. Under the Patent Act of 1790, individual states can no longer grant exclusive patent rights to inventors.⁸ Today, the U.S. Patent and Trademark Office (PTO) is the only agency in the United States permitted to grant these limited-in-time, government-approved monopolies.⁹ Furthermore, only under very limited circumstances¹⁰ can patent terms be extended past the internationally standardized term of twenty years.¹¹ However, the New York steamboat patent and the state legislature's transfer of patent rights to Livingston and Fulton, high-value users who were more capable than Fitch of producing steamboats for the benefit of society, serve as an example of the government's embrace of the original purpose of intellectual property rights: to motivate individuals to invent through short-term economic incentives in order to ensure extensive technological and societal advancement.¹²

The Supreme Court has adamantly held that patents do not require that patentees use or commercialize their inventions.¹³ Patents simply grant inventors

⁵ *Id.*

⁶ *Id.*

⁷ *Livingston v. Van Ingen*, 9 Johns. 507, 510 (N.Y. 1812), *overruled by* *N. River Steamboat Co. v. Livingston*, 3 Cow. 182 (N.Y. 1825).

⁸ Patent Act of 1790, ch. 7, § 1, 1 Stat. 109, 110 (1790).

⁹ See 35 U.S.C. §§ 1–2 (2006 & Supp. V 2012) (establishing the PTO and listing its powers and duties).

¹⁰ See, e.g., Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585, 1590-1602 (1984) (codified as amended at 35 U.S.C. § 156 (2006 & Supp. V 2012)) (allowing up to five years to be restored to a patent to compensate drug patent holders for marketing time lost while developing the product and awaiting FDA approval).

¹¹ See 35 U.S.C. § 154(a)(2) (2006 & Supp. V 2012) (specifying twenty-year U.S. patent term); see also Agreement on Trade-Related Aspects of Intellectual Property Rights art. 33, *opened for signature* Apr. 15, 1994, 1869 U.N.T.S. 299 [hereinafter "TRIPS"] (establishing the international standard patent term of twenty years for parties to the TRIPS Agreement).

¹² See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) ("The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit . . . [They are] intended to motivate the creative activity of authors and inventors . . . and to allow the public access to the products of their genius after the limited period of exclusive control has expired.").

¹³ See *Cont'l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 429 (1908) ("[I]t is the privilege of any owner of property to use or not use it, without question of motive.").

the right to exclude others from using or producing their inventions.¹⁴ That exclusive right, once granted, cannot be taken away because of a right holder's failure to work the patent.¹⁵ From an economic and public interest standpoint, however, would society not benefit from requiring patentees to at least make good faith efforts to make use of, distribute, or commercialize their patents? If the government grants an inventor a monopoly, which harms the marketplace and consumer welfare,¹⁶ what is wrong with requiring recipients of this exclusive right to actively promote the progress of the sciences and useful arts for the benefit of society?

No one would argue that the federal government should take the steps the New York state legislature took when it revoked John Fitch's patent after only one year of efforts. The government should not strip a patentee of his property rights and then arbitrarily reissue the patent to a different individual. Neither should the invention fall into the public domain if nonworking of the patent is proven. Rather, the United States should embrace the ideals and goals of patent law the New York legislature typified when it transferred the steamboat patent to a higher-value user—even if the methods it used in that redistribution of rights were ill-advised.

As established in the Intellectual Property Clause of the U.S. Constitution, the primary goal of patent law is to advance the public interest and achieve societal progress as efficiently as possible.¹⁷ Similarly, international trade agreements and the vast majority of foreign nations have recognized the great societal harms associated with nonworking of patents and suppression of technology.¹⁸ Mechanisms such as compulsory licensing, whereby “the state requires a patent holder to license his patent to another,”¹⁹ could combat patent nonuse and technology suppression and help achieve the goals outlined in the U.S. Constitution. A limited use of compulsory licensing that compensates inventors through reasonable and marketplace-based royalty rates will continue to incentivize inventors to develop and

¹⁴ See 35 U.S.C. § 154(a)(1) (“Every patent shall contain . . . a grant to the patentee . . . of the right to exclude others from making, using, offering for sale, or selling the invention . . .”).

¹⁵ *Cont'l Paper Bag*, 210 U.S. at 429-30.

¹⁶ For a simplified discussion of the costs associated with monopolies, see Tejvan R. Pettinger, *Disadvantages of a Monopoly*, ECONOMICS HELP, <http://www.economicshelp.org/microessays/markets/monopoly-diagram.html> (last visited Nov. 22, 2013).

¹⁷ See U.S. CONST. art. I, § 8, cl. 8. (establishing intellectual property rights “[t]o promote the Progress of Science and useful Arts”).

¹⁸ See *infra* Part III.

¹⁹ Joseph A. Yosick, *Compulsory Patent Licensing for Efficient Use of Inventions*, 2001 U. ILL. L. REV. 1275, 1276.

disclose their research and discoveries to the public.²⁰ Meanwhile, compulsory licensing will help ensure that the highest-value users—like Livingston and Fulton—rather than just the inventors themselves, will once again be permitted to use and commercialize new and progressive technologies to benefit society.

Part I of this Comment describes the constitutional foundation of the U.S. patent system and its purpose in granting monopolies to inventors in exchange for disclosure of their inventions. Part II then discusses the perverse incentives that patents may provide to inventors. It focuses on the societal problems that often arise when companies suppress technologies and the reasons why it might be advantageous for an inventor to decide not to work her patent. Part III examines international patent laws and the use of compulsory licensing throughout the world. Part IV discusses the history of Supreme Court patent jurisprudence and analyzes the reasons why compulsory licensing of patents has not been implemented in the United States. Finally, Part V argues for a limited use of compulsory licensing in the United States to exclusively address nonworking of patents and strategic suppression of inventions. A detailed structure is proposed that would ensure the original constitutional purpose of patents is better achieved.

I. THE U.S. PATENT SYSTEM

The Intellectual Property Clause of the U.S. Constitution grants Congress the power to “promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries.”²¹ For centuries, exclusive patent rights have been granted to inventors for the benefit of the public. But intellectual property rights have continued to evolve and rise in importance as the world has shifted toward an increasingly knowledge-based economy.

The grant of a patent comes with no affirmative duty on the part of the patent holder to use or commercialize the technology described in the patent’s claims.²² Instead, the patentee, after disclosing her invention, has the right to exclude others from using or commercializing the technology.²³

²⁰ See Ted Sichelman, *Commercializing Patents*, 62 STAN. L. REV. 341, 406-07 (2010) (“[I]n many cases, inventors would actually benefit from a fixed, low royalty rate, because it would set an enforceable reserve price for the invention.”).

²¹ U.S. CONST. art. I, § 8, cl. 8.

²² See *Cont’l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 428-30 (1908) (“[E]xclusion may be said to have been of the very essence of the right conferred by the patent, as it is the privilege of any owner of property to use or not use it, without question of motive.”).

²³ *Id.*; see also 35 U.S.C. § 271(a) (2006) (prohibiting the unauthorized use of a “patented invention during the term of the patent”); Charles Allen Black, *The Cure for Deadly Patent Practices*:

But patent rights and government-granted monopolies are a means to an end: patents are designed to spur research, development, and inventiveness for the benefit of society.²⁴ The ability to extract monopoly prices is an acceptable evil intended to advance technological development.²⁵ The system is thus in constant tension: patents do not force rights holders to take any affirmative steps to work their patents, but permitting patentees to choose not to work their government-granted monopolies thwarts the Constitution's stated goal of "promot[ing] the Progress of Science and useful Arts."²⁶

II. HOW PATENTS CAN THWART SOCIETAL PROGRESS

In recent years, the international intellectual property community has discussed at length patent law's perceived shortcomings in relation to the pharmaceutical industry. Developed and developing nations have fought bitterly over the consequences of granting entities monopoly rights for life-saving drugs and necessary medicines.²⁷ Communities devastated by AIDS and other debilitating diseases have argued passionately that it is abhorrent on a moralistic level for pharmaceutical companies to value profit over thousands, or even millions, of lives.²⁸

Preventing Technology Suppression and Patent Shelving in the Life Sciences, 14 ALB. L.J. SCI. & TECH. 397, 401-02 (2004) ("[P]atents give inventors monopolistic power to prevent non-patentees from making, using, selling, offering to sell, or importing the patented invention.").

²⁴ For one of the most revered discussions of the true purpose of patent rights, see Justice Douglas's dissent in *Special Equip. Co. v. Coe*, 324 U.S. 370, 380-84 (1945) ("It is a mistake . . . to conceive of a patent as but another form of private property. The patent is a privilege conditioned by a public purpose." (citation and internal quotation marks omitted)).

²⁵ See Amie N. Broder, *Comparing Apples to APPLs: Importing the Doctrine of Adverse Possession in Real Property to Patent Law*, 2 N.Y.U. J.L. & LIBERTY 557, 569 (2007) ("While ensuring patentees recoup the costs of innovating through a right to exclude others from using one's patent is also a motivation behind the patent system, the foremost justification for exclusion rights has always been 'generating incentives to create.'" (citation omitted)).

²⁶ U.S. CONST. art. I, § 8, cl. 8.

²⁷ For a more detailed discussion of patent issues related to the pharmaceutical industry and the advantages and disadvantages of using compulsory licensing to address international medical concerns, see generally Kristina M. Lybecker & Elisabeth Fowler, *Compulsory Licensing in Canada and Thailand: Comparing Regimes to Ensure Legitimate Use of the WTO Rules*, 37 J.L. MED. & ETHICS 222 (2009).

²⁸ See Yosick, *supra* note 19, at 1289 (recognizing that patent protection for drugs can cause prices to skyrocket, which decreases their availability and thereby harms people in developing countries who may suffer from life-threatening but treatable diseases); Dee Hon, *Battles with Big Pharma*, ADBUSTERS, Aug. 15, 2007, available at http://www.adbusters.org/magazine/73/Battles_with_Big_Pharma.html (discussing how, with the support of former President Bill Clinton, "Thailand and Brazil began overriding the patents for a costly new AIDS medicine from Merck"). For a discussion of how even the United States considered a form of compulsory licensing of "any invention relating to health care" in response to the Anthrax scare of 2001, see Kirby W. Lee,

Whether compulsory licensing should be used to combat the exorbitant prices pharmaceutical companies often charge during a drug's patent term is outside the scope of this Comment.²⁹ Rather, this Comment's main focus is situations in which a patentee fails to work her patent or consciously suppresses potentially beneficial technologies to the public's detriment. Such purely financial decisions could hinder efficient progress of the arts and sciences and may even deprive society of life-changing advancements for decades, until the patents expire.

A. Patent Nonuse and Technology Suppression

Patent law assumes that patentees will exploit their patents in order to benefit financially from government-granted monopoly rights. Studies estimate, however, that between forty and ninety percent of issued patents are never used or licensed by their owners during their terms.³⁰ By weakening intellectual property rights on a limited scale, Congress can ensure that patents are made available to the highest-value users who can help achieve efficient societal innovation and progress.³¹

"Patent nonuse occurs when a patentee fails to commercialize its patent," which may happen for a number of reasons.³² Some patents simply "ha[ve] no present commercial value."³³ Sometimes licensing negotiations with competitors or strategic partners will not be mutually beneficial and will ultimately fail.³⁴ Under these circumstances, the market seems to be signaling that these patents are not worth the expense and effort of commercialization.

Note, *Permitted Use of Patented Inventions in the United States: Why Prescription Drugs Do Not Merit Compulsory Licensing*, 36 IND. L. REV. 175, 175-76 (2003). For a more thorough discussion of compulsory licensing for pharmaceuticals under TRIPS, see generally Jon Matthews, *Renewing Healthy Competition: Compulsory Licenses and Why Abuses of the TRIPS Article 31 Standards Are Most Damaging to the United States Healthcare Industry*, 4 J. BUS. ENTREPRENEURSHIP & L. 119 (2010).

²⁹ For one analysis of this question, see Richard A. Epstein & F. Scott Kieff, *Questioning the Frequency and Wisdom of Compulsory Licensing for Pharmaceutical Patents*, 78 U. CHI. L. REV. 71, 80-83 (2011), arguing that a compulsory licensing regime for pharmaceutical patents is untenable because it would leave pharmaceutical companies unable to cover the fixed costs of developing and distributing new drugs.

³⁰ See Kurt M. Saunders, *Patent Nonuse and the Role of Public Interest as a Deterrent to Technology Suppression*, 15 HARV. J.L. & TECH. 389, 391 n.10 (2002) (citing numerous sources and studies that estimate the percentage of unused patents in practice).

³¹ See Broder, *supra* note 25, at 569 (arguing that intellectual property rights given to an inventor should be only as strong as necessary to spur subsequent innovation).

³² Saunders, *supra* note 30, at 391-92.

³³ *Id.* at 391. *But see* Sichelman, *supra* note 20, at 344 (noting that, according to one survey, though "40% of the patents held by respondents were uncommercialized[,] . . . 32% of these patents were either commercially 'very important' or 'quite important'" (citation omitted)).

³⁴ See *id.* at 391-92.

But patent nonuse can also arise from anticompetitive and strategic behaviors, where patentees deliberately suppress products or processes from the market to benefit financially.³⁵

The past century is rife with examples of powerful companies making strategic decisions that, for decades, deprived society of key advancements in technology.³⁶ Technology suppression and patent nonuse occur not only through strategic decisions made by original patent holders, but also by companies, threatened by new patented technologies, that wish to block their entry into the marketplace by acquiring the patent rights through licensing.³⁷

A company may choose to resist radical innovations it perceives as a threat to the status quo, or new developments that may disrupt its industry power and prestige.³⁸ A company's shelved patent may have more economic value because the company can generate more revenue from litigation-enforced patent licensing than by marketing the patented technology.³⁹ Patentees may also choose to block or fence a core technology by patenting potential market substitutes that competing companies could otherwise produce.⁴⁰ Lastly, companies may seek to avoid political or labor union backlash by suppressing "new technolog[ies] that will de-skill or displace workers."⁴¹

B. Consequences and Solutions

Proponents of strong intellectual property rights point to the quid pro quo that patent law represents: in exchange for disclosure, patent holders

³⁵ See *id.* at 392.

³⁶ See Sichelman, *supra* note 20, at 343 ("[M]any of the twentieth century's greatest inventions, including the television, radio, radar, and penicillin, were not commercialized until decades after they were invented.")

³⁷ See Saunders, *supra* note 30, at 414, 418-22 (explaining how exclusive licensees can "lock away the invention by refusing to use the patent or develop and commercialize the invention" and discussing numerous ways and reasons that licensees may strategically suppress patents).

³⁸ See JAMES DYSON, *AGAINST THE ODDS: AN AUTOBIOGRAPHY* 247-49 (2d ed. 2001) (explaining that a company may purchase or license a patent to "take it off the shelf to make sure nobody else uses it"); *cf.* Sichelman, *supra* note 20, at 364 (citing a European Commission survey of over 9000 European inventors finding thirty-eight percent of patents were unused by the inventors or licensed to other entities despite the majority of the patents being deemed valuable or important).

³⁹ See Jeff John Roberts, *Patent Troll Says It Owns GPS, Sues Foursquare*, GIGAOM (July 26, 2012, 4:00 PM), <http://gigaom.com/2012/07/26/patent-troll-says-it-owns-gps-sues-foursquare> (discussing a notable recent example of a "non-practicing entity" acquiring and enforcing patents through a strategic suit).

⁴⁰ See Sichelman, *supra* note 20, at 344 ("Because early patent grants reward the best *inventor*, but not necessarily the best *commercializer*, broad claims can impose unwarranted burdens on third-party commercializers.")

⁴¹ Saunders, *supra* note 30, at 419-20.

have the unfettered right to choose whether, when, and how their property will be used.⁴² But, the primary purpose of patent law according to the Intellectual Property Clause of the Constitution is to promote the progress of science and the useful arts—not to provide maximum economic compensation for rights holders.⁴³ Considering the example of Liggett & Myers Company, which patented a way to remove the majority of carcinogens from cigarette smoke during the 1960s and suppressed it until 2001, it is extremely difficult to argue that the conscious sacrifice of millions of lives over several decades was a reasonable tradeoff for protecting the strength and profitability of the cigarette industry.⁴⁴

Scholars, therefore, have recognized the law's failure to "consider seriously or to respond to the problem of technology suppression."⁴⁵ Consumers incur welfare losses when rights holders suppress beneficial patents or neglect to use them over their terms. This can delay or even preclude the public's enjoyment of new technologies and progressive inventions.⁴⁶ Additionally, patent suppression can hinder or prevent incremental innovations and improvements to original inventions that could otherwise lead to important discoveries and developments.⁴⁷

Nevertheless, Congress has, for the most part, chosen to ignore our patent system's perverse incentives for businesses, establishing that intentional nonuse of a patent by its owner or licensee is not an actionable misuse of patent rights.⁴⁸ But in recent years, it seems several Supreme Court Justices have begun to recognize the dangers inherent in the patent system's right of exclusion with no requirement of production.⁴⁹ In certain circumstances, they have recommended damages in lieu of injunctions to combat the

⁴² See Sichelman, *supra* note 20, at 377-78 (noting that "disclosure is the 'quid pro quo of the right to exclude,'" but observing that "there is relatively little social value to disclosure as an end in itself: technical knowledge put to no use is not worth much" (citation omitted)).

⁴³ See U.S. CONST. art. I, § 8, cl. 8.

⁴⁴ See Saunders, *supra* note 30, at 393-95 (discussing the strategic considerations of cigarette companies that suppressed such research and patents for over thirty years). For another situation in which technology suppression harmed the public, see *id.* at 395-96, in which the author discusses how Amgen suppressed "a wonderful advance that could save hundreds of thousands of children from anemia and death" to preserve the market for their lucrative but less effective patented drug.

⁴⁵ *Id.* at 396.

⁴⁶ *Id.* at 419.

⁴⁷ *Id.*

⁴⁸ See 35 U.S.C. § 271(d)(4) (2006) (declaring that it is not patent misuse to "refus[e] to license or use any rights to the patent").

⁴⁹ See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396-97 (2006) (Kennedy, J., concurring) ("An industry has developed in which firms use patents not as a basis for production and selling goods but, instead, primarily for obtaining licensing fees.").

detrimental effects of patent holdups in various sectors of society.⁵⁰ As the international community further shifts toward a knowledge-based economy, thus relying on intellectual property to a greater extent, compulsory licensing should be employed more readily as a means of social engineering to better promote technology competition and innovation.⁵¹

III. COMPULSORY LICENSING FOR PATENTS IN THE INTERNATIONAL ARENA

The majority of WTO member nations have more fully embraced and utilized compulsory licensing than the United States has, permitting compulsory licensing of patents in international trade agreements.⁵² Under Article 5 of the Paris Convention, member countries may grant compulsory licenses to prevent abuses that may result from a patent holder's exercise of exclusive patent rights.⁵³ The grant of a nonexclusive compulsory license to entities that intend to use the patent in the domestic market, therefore, is meant to combat abusive patent practices, including the failure of a patent holder to work a patent.⁵⁴

Article 5 of the Paris Convention, however, establishes that a compulsory license cannot be issued for failure to work a patent for at least four years after the patent application is filed or three years after the patent is issued.⁵⁵ The compulsory license can be denied if the patentee provides legitimate legal, economic, or technical reasons for nonuse.⁵⁶ In essence, compulsory licenses are available under the Paris Convention to encourage use of inventions in domestic markets and to ensure that the public is not prevented from benefiting from new and progressive technologies and inventions.⁵⁷

⁵⁰ See *id.*; see also *infra* Section IV.B.

⁵¹ See generally Saunders, *supra* note 30, at 397, 434-49 (discussing why compulsory licensing of patent rights is in the public interest).

⁵² *Id.* at 438; see also Paris Convention for the Protection of Industrial Property art. 5(A)(2)-(4), Mar. 20, 1883, 21 U.S.T. 1583 (as revised at Stockholm on July 14, 1967) [hereinafter Paris Convention] (providing for the issuance of compulsory licenses to prevent abuses).

⁵³ See *id.*

⁵⁴ See Saunders, *supra* note 30, at 436-37.

⁵⁵ Paris Convention, *supra* note 52, at art. 5(A)(4).

⁵⁶ *Id.*

⁵⁷ See Saunders, *supra* note 30, at 436-37 ("The Convention makes clear that the purpose of having a compulsory licensing statute is to protect intellectual property from being suppressed or neglected within the country of interest simply because the owner is unwilling or unable to exploit it.").

A. Trade-Related Aspects of Intellectual Property Rights (TRIPS)

In 1993, the Uruguay Round of the General Agreements on Tariffs and Trade established the TRIPS Agreement,⁵⁸ which ultimately led to the adoption of the twenty-year patent term in the United States.⁵⁹ More important, however, it acknowledged that member countries are permitted to use certain patents without the rights holder's authorization, within limits, when necessary "to protect public health and nutrition, . . . to promote the public interest in sectors of vital importance . . . [, and] to prevent the abuse of intellectual property rights."⁶⁰ Such abuse may include a patentee's imposition of unreasonable terms or engagement in practices that could "adversely affect the international transfer of technology."⁶¹

TRIPS does place some limits on compulsory licensing: "Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties."⁶² Specifically, a compulsory license is grantable, in addition to other requirements, if (1) authorization is considered on the individual merits; (2) the applicant has made efforts to obtain a license from the patentee on reasonable commercial terms, and such efforts have failed within a reasonable period of time; (3) the compulsory license is nonexclusive and nonassignable; (4) it is primarily for use in the domestic market; and (5) the patentee receives "adequate remuneration" based on the economic value of the nonexclusive license that is to be granted.⁶³ Further, the "legal validity" of any decision authorizing unlicensed use of a patented invention and establishing the requisite royalty rate must be subject to judicial review or other independent review in the member state's jurisdiction.⁶⁴

B. International Use and Acceptance of Compulsory Licensing

Consistent with the provisions of the Paris Convention and the TRIPS Agreement, "the overwhelming majority of countries that belong to the [WTO] have enacted compulsory licensing as part of their patent laws."⁶⁵

⁵⁸ See generally TRIPS, *supra* note 11.

⁵⁹ Yosick, *supra* note 19, at 1285.

⁶⁰ TRIPS, *supra* note 11, at art. 8.

⁶¹ *Id.*

⁶² *Id.* at art. 30.

⁶³ *Id.* at art. 31(a), (b), (e), (f) & (h).

⁶⁴ See *id.* at art. 31(i)-(j).

⁶⁵ Saunders, *supra* note 30, at 438-39.

Additionally, “some countries resort to compulsory licensing as a remedy for antitrust or misuse.”⁶⁶ Countries have turned to compulsory licensing for food, medicine, and other patents to overcome such market failures as rights holders blocking dependent or improvement patents through anticompetitive or strategic company behavior or refusing altogether to work or license their patents.⁶⁷ These countries have permitted compulsory licensing for these types of inventions for a variety of reasons: “to protect national security by ensuring an adequate supply of medicine, especially to combat devastating diseases like AIDS; to avoid the high costs of new drugs which developing countries cannot afford; and to encourage the retention of scientists and the development of a local pharmaceutical industry.”⁶⁸

Further, powerful and developed countries such as the United Kingdom permit compulsory licensing in a variety of situations outside the pharmaceutical context. Such licensing is permitted when a patentee refuses to license its patent on reasonable terms or its refusal to license prejudices “the establishment or development of commercial or industrial activities in the United Kingdom.”⁶⁹ In Japan, compulsory licensing is permitted when a patent has not been worked for three years and where working is “particularly necessary for the public interest.”⁷⁰ As the Indian pharmaceutical industry developed, compulsory licensing was utilized to encourage the local working of inventions for the benefit of the domestic economy.⁷¹ Lastly, Germany continues to allow compulsory licensing if “(1) the person seeking a license has unsuccessfully endeavored during a reasonable period of time to obtain from the patentee consent to use the invention under reasonable conditions usual in trade; and (2) public interest commands the grant of a compulsory

⁶⁶ *Id.* For more information regarding the U.S. patent misuse doctrine, see generally 35 U.S.C. § 271(d) (2006).

⁶⁷ See Black, *supra* note 23, at 404 (“[M]any countries will allow compulsory licensing for certain technologies related to food production and drugs . . .”); *cf. id.* at 429-30 (discussing the failure of market solutions with respect to licensing in the life sciences industry).

⁶⁸ Yosick, *supra* note 19, at 1289; see also Black, *supra* note 23, at 401 (“Unlike the United States, these societies weigh the social right to use certain forms of technologies more heavily than a patentee’s right to deny the technology to the public.”).

⁶⁹ Patents Act, 1977, c. 37, § 48(a)(3)(d) (U.K.).

⁷⁰ [Tokkyohō] [Patent Act], Act No. 121 of 1959 (as amended up to Act No. 63 of 2011), art. 83, para. 1, art. 93, para. 1 (Japan) *translated in* WORLD INTELLECTUAL PROPERTY ORGANIZATION LEX, *available at* www.wipo.int/wipolex/en/text.jsp?file_id=299486.

⁷¹ For a more thorough discussion of India’s use of compulsory licensing and the changes that have resulted from TRIPS, see Srividhya Ragavan, *Of the Inequals of the Uruguay Round*, 10 MARQ. INTELL. PROP. L. REV. 273, 290-92 (2006) (“The compulsory license provision and the government’s ability to issue licenses of right were meant to facilitate local manufacturing of inventions.”).

license.”⁷² Compulsory licenses will be granted to “ensure an adequate supply of the patented product to the domestic market” where, in addition to the above criteria, the “patentee does not work the patented invention or does not work it predominantly in Germany.”⁷³ Most WTO countries, in fact, have recognized the importance and benefits of using compulsory licensing to correct market failures and ensure the efficient progression of society.⁷⁴

C. The United States’ Reaction

United States industry participants have adamantly opposed the use of compulsory licensing, claiming that if governments allow compulsory licenses to be issued, companies will be incapable of recouping the billions of dollars spent on the research and development necessary for innovation and production.⁷⁵ Despite acceptance of compulsory licensing in limited circumstances by the vast majority of WTO members, the U.S. Congress has several times attempted and failed to pass a general compulsory licensing bill.⁷⁶ In 1973, the Hart Bill was proposed, which not only would have established the foundation for compulsory licensing of patents related to “public health, safety, energy, or protection of the environment,” but also would have granted a compulsory license for any patent that went unworked within three years of issuance or within four years of the application’s filing date.⁷⁷ This bill, as well as many other proposals in recent years, ultimately failed in the face of strong opposition from technology-heavy industries and patent practitioners.⁷⁸ As a result, Congress continues to neglect the problems of technology suppression and unworked patents.⁷⁹

⁷² See Patentgesetz [PatG] [Patent Act], May 5, 1936, BGBl. I, last amended by Gesetz [G], Jul. 31, 2009, BGBl. I at 2521, art. 24 (Ger.), translated in WORLD INTELLECTUAL PROPERTY ORGANIZATION LEX, available at www.wipo.int/wipolex/en/text.jsp?file_id=238776.

⁷³ *Id.*

⁷⁴ See Yosick, *supra* note 19, at 1289-90.

⁷⁵ See *id.* at 1276 (“Although common in other countries, including Japan, Germany, and the United Kingdom, [compulsory licensing] is rarely applied in the United States.”). *But see* Black, *supra* note 23, at 403 (explaining that, in the United States, “the government may ‘march-in’ if a producer cannot meet the public health needs,” and that “doctors and hospitals are granted immunity from damages for infringing medical patents used to care for patients”).

⁷⁶ Saunders, *supra* note 30, at 439-40.

⁷⁷ See S. 814, 94th Cong. § 7 (1975) (declaring it “an unfair act or practice . . . for the owner of a United States patent, or any licensee having sublicensing rights thereunder, to refuse or fail to license such patent . . . to any applicant in the United States on reasonable and nondiscriminatory terms, when the effect of such refusal or failure may be substantially to lessen actual or potential commerce”); see also Yosick, *supra* note 19 at 1278 (discussing the opposition to and failure of the Hart Bill and similar legislation).

⁷⁸ See Yosick, *supra* note 19, at 1278.

⁷⁹ See *id.* at 1278-79 (chronicling the absence of compulsory licensing legislation).

IV. U.S. OPPOSITION TO COMPULSORY LICENSING

While the United States has turned to compulsory licensing in certain limited circumstances, the government has generally abhorred the limiting of intellectual property rights and patent monopolies.⁸⁰ Critics of compulsory licensing argue that the threat of compelled use and the weakening of patent rights would reduce individuals' and companies' incentives to develop and disclose new inventions for the benefit of society.⁸¹ They fear that the main purpose of the patent system, to promote innovation and encourage disclosure of inventions, would be undermined.⁸² Additional arguments against compulsory licensing have ranged from claims that there is no evidence of wrongful suppression of patented technology under the current system to characterization of compulsory licensing as "socialism run rampant."⁸³ Some even believe that compulsory licensing "strikes at the very foundation of the patent system."⁸⁴

However, numerous studies have cast doubt on these critiques and predictions.⁸⁵ Some scholars have noted that compulsory licensing can

⁸⁰ See *id.* at 1277 ("The U.S. patent system has generally been hostile toward the practice of compulsory licensing.")

⁸¹ See Saunders, *supra* note 30, at 438 n.289 ("The premise here is that invention and innovation would be reduced without the reward of a twenty-year term of exclusivity. . . . [T]his position is bound closely with the linkage of patent protection to property rights theory."); Yosick, *supra* note 19, at 1291-92 (discussing arguments that compulsory licensing would discourage innovation by decreasing the return on investment, and would encourage secrecy to avoid licensing).

⁸² As Professor Oppenheimer explained,

The fundamental exchange required by utility patent law is the inventor's surrender of a trade secret in exchange for the patent, promoting progress . . . by putting the public in possession of information that the inventor could have withheld and giving the inventor the incentive of an assured term of exclusive control over the invention.

Max Stul Oppenheimer, *The Time and Place for "Technology-Shifting" Rights*, 14 MARQ. INTELL. PROP. L. REV. 269, 285 (2010) (citations omitted).

⁸³ Yosick, *supra* note 19, at 1278 (citation and internal quotation marks omitted).

⁸⁴ STAFF OF SUBCOMM. ON PATENTS, TRADEMARK & COPYRIGHTS, S. COMM. ON THE JUDICIARY, 85TH CONG., 2D SESS., STUDY NO. 12, COMPULSORY LICENSING OF PATENTS—A LEGISLATIVE HISTORY 9-10 (Comm. Print 1958).

⁸⁵ See F.M. SCHERER, *THE ECONOMIC EFFECTS OF COMPULSORY PATENT LICENSING* (1977) (discussing the economic impact of compulsory patent licensing schemes on businesses); F.M. Scherer, *Comment*, in *COMPETITION POLICY AND INTELLECTUAL PROPERTY RIGHTS IN THE KNOWLEDGE-BASED ECONOMY* 104, 105-108 (Robert D. Anderson & Nancy T. Gallini eds., 1998) (analyzing the relationship between R&D expenditures and compulsory licensing and finding that, contrary to expectations, there was "a statistically significant elevation of . . . R&D" in "companies subjected to compulsory licensing"); see also Yosick, *supra* note 19, at 1292 (explaining that the arguments that compulsory licensing would erode the foundation of the patent system, "however, overestimate the effects of a compulsory licensing system and would occur only in a system that grants licenses very liberally"). *But see* C.T. TAYLOR & Z.A. SILBERSTON, *THE ECONOMIC IMPACT OF THE PATENT SYSTEM* 349-50 (1973) (concluding that a narrowly tailored

actually provide a strong incentive for patentees and interested licensees to better use patents that otherwise would not be commercialized.⁸⁶ Additionally, not only can compulsory licensing serve a market-channeling function, but it also prevents high transaction costs and bilateral monopolies from thwarting beneficial technology transactions. A limited and controlled threat of compulsory licensing could encourage parties to eventually come to an agreement themselves rather than resort to costly litigation or nonworking of the patent.⁸⁷ The Atomic Energy Act contains a provision for compulsory licensing of inventions in the public interest related to atomic energy,⁸⁸ and the Clean Air Act contains a similar provision for inventions related to air pollution.⁸⁹ Thus, it seems that legislators are open to considering compulsory licensing when the provisions are narrowly tailored and for the public interest.

A. *The Development of U.S. Patent Jurisprudence*

Nineteenth-century courts recognized and embraced compulsory licensing for patents in a wide array of circumstances. Early federal court decisions recognized that “under a patent which gives a patentee a monopoly, he is bound either to use the patent himself or allow others to use it on reasonable or equitable terms.”⁹⁰ Focusing on the primary purpose of patents, other courts recognized that a patentee that “refuses to allow others to make useful [inventions] is not within the spirit of the provision of the constitution which assigns as a reason for securing exclusive rights to authors and inventors a desire to promote the progress of science and the useful arts.”⁹¹

When the issue finally reached the Supreme Court in the early twentieth century, however, a landmark decision validated patent nonuse as a legitimate

compulsory licensing regime would slightly discourage patenting and disclosure and would have only a marginal impact on the U.K. economy, while significantly lowering R&D across several sectors of the economy).

⁸⁶ Saunders, *supra* note 30, at 441 (noting that compulsory licensing “may also introduce dynamic efficiencies by reducing expenditures on uneconomic invent-around R&D”); Yosick, *supra* note 19 at 1293-1301 (arguing that compulsory licensing would be particularly effective at encouraging domestic use of patents and resolving “blocking patents”).

⁸⁷ See Yosick, *supra* note 19 at 1293-98 (discussing the societal consequences incurred when parties with overlapping patent claims fail to effectuate beneficial transactions or resort to litigation to settle licensing disputes).

⁸⁸ 42 U.S.C. § 2183 (2006 & Supp. V 2012).

⁸⁹ *Id.* § 7608 (2006 & Supp. V 2012).

⁹⁰ *Hoe v. Knap*, 27 F. 204, 212 (C.C.N.D. Ill. 1886).

⁹¹ *Ewart Mfg. Co. v. Baldwin Cycle-Chain Co.*, 91 F. 262, 265 (D. Mass. 1898) (internal quotation marks omitted).

exercise of patent rights.⁹² In subsequent decades, the Court consistently recognized that a patentee is not obligated to use or allow others to use a patent.⁹³ Over the past century, American companies have strategically utilized patents to suppress competing technologies that could have potentially changed the way consumers live.⁹⁴ Toward the latter part of the twentieth century, the Supreme Court suggested that the public interest may provide a basis for compulsory licensing, but this occurred in the unique context of antitrust violations.⁹⁵ The Department of Justice Antitrust Division and the Federal Trade Commission often condition approval of large mergers on the licensing of certain patents to competitors.⁹⁶ However, for the most part, patent suppression and nonuse has become an accepted intellectual property practice, despite its potential to drastically harm the public.

B. *Signs of Hope*

With the recent international expansion of patent rights and the United States' position at the forefront of intellectual property rights development, several Supreme Court Justices have revealed a newfound recognition of the dangers inherent in the U.S. patent system.⁹⁷ One such danger stems from

⁹² The Supreme Court explained,

As to the suggestion that competitors were excluded from the use of the new patent, we answer that such exclusion may be said to have been of the very essence of the right conferred by the patent, as it is the privilege of any owner of property to use or not use it, without question of motive.

Cont'l Paper Bag Co. v. E. Paper Bag Co., 210 U.S. 405, 429 (1908).

⁹³ See, e.g., Hartford-Empire Co. v. United States, 323 U.S. 386, 432 (1945) (“[A patentee] has no obligation either to use [the patent] or to grant its use to others.”); Special Equipment Co. v. Coe, 324 U.S. 370, 378-79 (1945) (“This Court has consistently held that failure of the patentee to make use of a patented invention does not affect the validity of the patent.”); Woodbridge v. United States, 263 U.S. 50, 55 (1923) (noting that “a patentee is not obliged either to make, use or vend his invention during the period of his monopoly” (citations omitted)); Crown Die & Tool Co. v. Nye Tool & Mach. Works, 261 U.S. 24, 34 (1923) (asserting as a “clearly established principle[]” the idea that Congress has not placed an “express statutory imposition upon the patentee . . . to make, use or vend his patented invention as a condition of receiving his patent”).

⁹⁴ See Sichelman, *supra* note 20, at 358 (explaining the dangers of technology suppression, noting that “[i]f an original patentee can block subsequent product improvements by others, there will be diminished *ex ante* incentives for others” to innovate and provide new products to consumers).

⁹⁵ See generally United States v. Glaxo Grp. Ltd., 410 U.S. 52 (1973) (recognizing compulsory licensing at reasonable royalty rates as a permissible antitrust remedy).

⁹⁶ Saunders, *supra* note 30, at 447.

⁹⁷ See, e.g., eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 396-97 (2006) (Kennedy, J., concurring) (noting that injunctive relief may not always serve the public interest because “[a]n industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees”).

the numerous nonpracticing entities that have profited greatly over the past few decades. Nonpracticing entities do not bring products to market; rather, they derive revenue from patents by enforcing their intellectual property rights against alleged infringers.⁹⁸ As a result, patent holdups⁹⁹ have increasingly affected technology-heavy industries, as nonpracticing entities threaten and coerce parties into licensing patents or exiting the market to avoid engaging in costly, high-stakes litigation.¹⁰⁰

Courts have therefore begun to embrace the wide discretion available to them in remedying patent infringement. Until the early twenty-first century, courts in the vast majority of circumstances granted permanent injunctions for patent infringement, whether or not the patentee had been using or commercializing the invention.¹⁰¹ But following the Supreme Court's decision in *eBay Inc. v. MercExchange, L.L.C.*,¹⁰² federal courts have begun adopting a compulsory license doctrine that largely follows the Second Circuit and Justice Kennedy's concurring approach.¹⁰³

The *eBay* majority decision established that courts should apply the traditional four-factor test for injunctive relief in cases of patent infringement.¹⁰⁴ Of particular note is Justice Kennedy's concurrence, which advocates strongly against automatically affirming a patentee's absolute right to exclude through injunctions in cases of nonpracticing patentees.¹⁰⁵ When patent holders attempt to leverage the threat of a court-issued injunction into a presuit settlement, Kennedy urges courts instead to grant damages of

⁹⁸ See Broder, *supra* note 25, at 572 (“[Nonpracticing] entities arguably invest nothing in the innovation, except the cost of acquiring the patent and the cost of pursuing potential infringers.”).

⁹⁹ Patent holdups occur when companies cannot produce certain products because they “read on” a patent that the patentee refuses to license. Troy L. Gwartney, Note, *Harmonizing the Exclusionary Rights of Patents with Compulsory Licensing*, 50 WM. & MARY L. REV. 1395, 1403 (2009); see also *id.* at 1436 (citing study results finding that “[n]onpracticing entities file 30-40% of all patent suits in the computing and electronics industries” (alteration in original)).

¹⁰⁰ See generally *eBay*, 547 U.S. at 395-97 (Kennedy, J., concurring).

¹⁰¹ See *id.* at 391 (majority opinion) (noting the “general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances” (quoting *MercExchange, L.L.C. v. eBay, Inc.*, 401 F.3d 1323, 1339 (Fed. Cir. 2005))).

¹⁰² 547 U.S. 388.

¹⁰³ See, e.g., *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1380-81 (Fed. Cir. 2008) (approving a reasonable royalty award and vacating an injunction); *Paice LLC v. Toyota Motor Corp.*, 2006 U.S. Dist. LEXIS 61600, at *11-15 (E.D. Tex. Aug. 16, 2006) (determining that a reasonable royalty would be adequate compensation and refusing to assume irreparable harm for an injunction); see also Jaideep Venkatesan, *Compulsory Licensing of Nonpracticing Patentees After eBay v. MercExchange*, 14 VA. J.L. & TECH. 26, 31 (2009) (“These courts have decided, though not always expressly, that a nonpracticing patentee is entitled only to the royalty it would have earned had the parties executed a license . . .”).

¹⁰⁴ See *eBay*, 547 U.S. at 391-93.

¹⁰⁵ See *id.* at 395-97 (Kennedy, J., concurring).

reasonable royalties.¹⁰⁶ In response to Justice Kennedy and others' belief that royalties and damages may be sufficient to adequately compensate aggrieved patentees, lower courts, including the Federal Circuit,¹⁰⁷ have begun to embrace compulsory licensing by regularly denying injunctive relief to nonworking patent holders.¹⁰⁸

The Supreme Court thus signaled that strategic and detrimental patent enforcement behavior should not be tolerated when it stands in sharp opposition to the public interest. This Comment contends that compulsory licensing can ensure that individuals will still be compensated for their investments and inventive labor through the establishment of a reasonable royalty rate, while efficient commercialization practices and increased use of emerging technologies will benefit society.¹⁰⁹ It may be wise for the federal government to heed the Supreme Court's wisdom, as well as the practices of the majority of foreign nations, and recognize the value of compulsory licensing in today's world.

V. COMPULSORY LICENSING TO ENSURE SOCIETAL PROGRESS

The incentives created by the patent system and the public's interest in technological progress and competition must be better aligned. The United States' acceptance and limited use of compulsory licensing serves as a powerful example of the proper way to limit a patentee's right to exclude. Congress, therefore, should reorient its view of patent law and once again focus on the development of science and the useful arts while protecting the proper incentive level for inventors.¹¹⁰

¹⁰⁶ *Id.*

¹⁰⁷ See, e.g., *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1313-15 (Fed. Cir. 2007) ("Under some circumstances, awarding an ongoing royalty for patent infringement in lieu of an injunction may be appropriate.").

¹⁰⁸ For a further discussion of the lower courts' decisions embracing this approach, see Venkatesan, *supra* note 103, at 39-40. See also Daniel J. Iden, Note, *Combating Joint Ventures in Suppression: Taking Inventory of the Legal Arsenal*, 96 MINN. L. REV. 278, 290-91 (2011) (noting that "consideration of public interest when . . . determining whether or not to apply a compulsory licensing regime . . . seems to have found some traction among courts, at least in effect," following *eBay*).

¹⁰⁹ Cf. Sichelman, *supra* note 20, at 363 ("[A]bout only 5% of issued patents are licensed for a royalty. . . . These low rates of licensing . . . are further evidence of under-commercialization.").

¹¹⁰ See Yosick, *supra* note 19, at 1300-01 ("It is important that compulsory licensing be allowed only where truly necessary to promote the public interest, while not significantly reducing the incentive to develop new technology.").

A. *The Benefits of Compulsory Licensing*

Compulsory licensing should be imposed in only limited circumstances—specifically, where overwhelming hardship to the public outweighs the benefits to the patent holder. The threat and actual imposition of a reasonable and equitable royalty rate can help overcome the high transaction costs, bilateral monopolies, and psychological failures that often prevent parties from reaching agreements.¹¹¹ Therefore, when patent holders fail to commercialize their intellectual property after a reasonable period of time, such patents should be subject to compulsory licensing for the benefit of society.¹¹²

Patentees who are unable or unwilling to acquire the resources necessary to bring the product to market or fail to find a suitable licensee should be subject to the market-forcing mechanism of compulsory licensing. Not only would products that would otherwise be shelved or suppressed for the patent term come to market, but they would presumably be offered at more competitive prices. The mere threat of compulsory licensing for nonuse would likely reduce the incidence of patent suppression and nonworking by persuading entities to overcome conflicts and issue licenses based on their own price valuations.¹¹³

Critics may argue that compulsory licensing would reduce investment in innovation by defeating inventors' ability to extract monopoly profits. But compulsory licensing would occur only in a very limited number of circumstances and only when a patentee is unable or unwilling to bring the invention to market. The *ex ante* incentive to invent should therefore remain strong, as few inventors consciously research, develop, and patent inventions with an already-established desire to suppress the product for the full patent term.¹¹⁴ With compulsory licensing for the remainder of the patent term,

¹¹¹ See *supra* note 87 and accompanying text. Note that TRIPS requires companies to have already attempted to obtain a license from the patentee before a compulsory license can be issued. See *supra* note 63 and accompanying text.

¹¹² See Sichelman, *supra* note 20, at 406-07 (“If the invention patentee or a licensee did not commercialize by . . . roughly five to eight years after filing[] it seems difficult to argue that providing that opportunity to a third party willing to do so under a low, but reasonable, royalty prejudices the patentee.”).

¹¹³ See Eric Bond & Kamal Saggi, *Compulsory Licensing, Price Controls, and Access to Patented Foreign Products* 4 (Vanderbilt Univ. Dep't of Econ., Working Paper No. 12-00006, 2012), available at <http://www.accessecon.com/pubs/VUECON/VUECON-12-00006.pdf> (“[C]ompulsory licensing need not actually be used: the threat to issue a compulsory license can affect the behavior of patent-holders . . .”).

¹¹⁴ Cf., e.g., Richard Tyler, *Inventor Fury as Patents Prove Too Costly to Defend*, TELEGRAPH (Mar. 8, 2012), <http://www.telegraph.co.uk/finance/yourbusiness/9130815/Inventor-fury-as-patents-prove-too-costly-to-defend.html> (quoting a technology broker who explained that he had “come to the view that the only reason [small- and medium-sized enterprises (SMEs)] should seek a patent

rights holders would continue to reap the fruits of their labor by recouping at least some of the costs incurred during research and development.¹¹⁵ In fact, establishing competitive rates without engaging in costly negotiations and incurring other transaction costs with interested licensees may lead to greater net profits for inventors.¹¹⁶

B. Proposed Framework

To ensure fairness and stability, patents should not be subject to the threat of compulsory licensing until patentees have been given a reasonable opportunity to use, commercialize, license, or assign their patents for use in the marketplace. Based on the pharmaceutical industry's passionate arguments that compulsory licensing undermines the ability to recoup the billions of dollars spent on research and development of new drugs, compulsory licensing should not be considered for the first eight years of the patent term. This safe-haven period would be granted to all patents, no matter the industry, and would actually be much longer than the time limitations placed on compulsory licensing by certain countries under TRIPS.¹¹⁷

After eight years, companies should be required to file a short document or statement detailing efforts to use, develop, or commercialize the patent, by either the original patent holder or a licensee.¹¹⁸ This report could be filed at the same time as payment of the patent's maintenance fees. Under the current structure, fees are due at the three-, seven-, and eleven-year marks.¹¹⁹ But to better align fees with the proposed compulsory licensing framework, I recommend that both the fees and the evidence necessary to avoid compulsory licensing should be due during the eighth, eleventh, fourteenth, and seventeenth years of the patent term.

is to create something that can be traded—hopefully to an entity who can afford to sue those who infringe it—unless the SME has deep pockets and limitless stamina”).

¹¹⁵ See Iden, *supra* note 108, at 298-99 (“One of the most compelling reasons for courts to assign compulsory licenses in cases of technology suppression is that it would make the patent available for public consumption and development while still compensating the patentee.”).

¹¹⁶ See *id.* at 299 (“Since others can develop or use the invention, the public is able to reap any social good able to be derived from the patent. . . . [C]ompulsory licenses might represent a reasonable compromise among the patentee, licensee, and the social good.” (footnote omitted)); see also Sichelman, *supra* note 20, at 406-07 (“[I]n many cases, inventors would actually benefit from a fixed, low royalty rate, because it would set an enforceable reserve price for the invention, which would reduce strategic negotiation and overall bargaining costs, increasing the odds of consummating a deal.”).

¹¹⁷ See *supra* Section III.B.

¹¹⁸ For a discussion of the implications of an annual reporting requirement or disclosure and justification to the public of nonuse, see Saunders, *supra* note 30, at 427-30.

¹¹⁹ See 35 U.S.C. § 41(b) (2006).

The PTO would have to review these materials, which admittedly would add a heavy burden to an already overloaded system.¹²⁰ To cover this additional cost, maintenance fees should be increased above their current rates and increase with each payment period.

Upon review, the PTO would make a decision concerning whether the patent has been sufficiently worked or whether the inventor is making an effort to bring the product to market. Should the evidence submitted not meet the necessary level of proof, the PTO would refer the matter to a specialized board for a hearing to determine whether compulsory licensing should issue and at what rate. This would provide patentees with the TRIPS-required judicial review, as well as allow further evidence and expert testimony to be submitted regarding the working of the patent.

The specialized board could be created either under the jurisdiction of the Court of Appeals for the Federal Circuit or as a separate entity to deal exclusively with compulsory licensing issues. In fact, copyright law took the latter approach when the Librarian of Congress appointed three fulltime Copyright Royalty Judges to the Copyright Royalty Board (CRB) to determine compulsory licensing rates for certain works.¹²¹

Critics and patentees may argue that third parties and specialized boards will be unable to determine reasonable and fair royalty rates, or that patentees and interested licensees are better evaluators of the worth of patents.¹²² Justice Kennedy, with three other Justices joining his concurrence, however, opined that “legal damages may well be sufficient to compensate for the infringement,” suggesting that courts are capable of determining and imposing reasonable royalty rates in a variety of contexts, including patent infringement suits.¹²³ If a CRB-type board is established for patent compulsory licensing, greater expertise is likely to be developed. Specialized judges

¹²⁰ See Andrew Brandt, *Patent Overload Hampers Tech Innovation*, PCWORLD (Feb. 27, 2006), <http://www.pcworld.com/article/124826/article.html> (discussing the severe patent backlog facing the U.S. PTO).

¹²¹ See 17 U.S.C. § 114(f) (2006) (outlining types of transmissions subject to compulsory licensing by the CRB); *id.* § 801 (2006 & Supp. V 2012) (authorizing the appointment and function of Copyright Royalty Judges). See generally *id.* § 111 (2006 & Supp. V 2012) (establishing a statutory license in secondary transmissions by cable television systems); *id.* § 112 (2006) (establishing a statutory license for ephemeral recordings used to facilitate digital transmissions); *id.* § 115 (2006 & Supp. V 2012) (establishing a statutory license for the reproduction and distribution of phonorecords of nondramatic musical works); *id.* § 118 (2006) (allowing a statutory license for the use of certain copyrighted works by noncommercial broadcasting entities); *id.* § 119 (2006 & Supp. V 2012) (establishing a statutory license for satellite retransmissions to the public for private viewing); *id.* § 122 (2006 & Supp. V 2012) (establishing a statutory license for satellite retransmissions of local television stations' broadcasts into local markets).

¹²² See Yosick, *supra* note 19, at 1298.

¹²³ See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 395-97 (2006).

focused on compulsory licensing issues would help create precedents across a wide variety of industries, which will help establish a more accurate and fair system for both patentees and the public. In the process, the expertise and efficiency inherent in a specialized board would result in lower litigation costs and greater accuracy for the parties involved.

The board likely would quickly develop expertise in compulsory licensing and be able to not only efficiently and accurately determine which patents should be subject to such licensing, but also establish reasonable royalty rates that represent competitive transactions between willing buyers and sellers in the marketplace. Following an evidentiary hearing, the board would determine licensing rates, considering such factors as economic analysis, expert testimony, past industry practices, past company practices, prior precedents, and market evidence. Establishing royalty rates based on percentages of licensee revenue will align the incentives of the patentee and licensee, ensuring that products are properly and efficiently commercialized. In addition, a revenue-based model would ensure that licensing fees do not exceed gross revenues for any interested party.¹²⁴

Borrowing language from the Bayh–Dole Act,¹²⁵ the standard used by the board for determining whether compulsory licensing should be imposed on a specific patent should be similar to whether the patent holder “has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention.”¹²⁶ The focus would be on the affirmative steps taken by the patentee, the market demand for the invention, and the public interest in scientific and artistic progress.¹²⁷ The determination, however, would not take into account many of the issues, such as exorbitantly high prices, that are often raised in regard to the pharmaceutical industry. The main goal of this compulsory licensing system is to ensure that inventions are properly practiced. In this way, the market—rather than the patentee—determines when and to what extent new technologies are incorporated into society.

If a patentee were able to prove sufficient working of the patent to avoid compulsory licensing—a relatively easy burden under this structure—

¹²⁴ Such a revenue based–royalty rate model has already been implemented in the copyright context. See Small Webcaster Settlement Act of 2002, Pub. L. No. 107-321, 116 Stat. 2780, 2782 (2002) (codified as amended at 17 U.S.C. §§ 101, 117 (2006 & Supp. V 2012)) (“Any such agreement for small commercial webcasters shall include provisions for payment of royalties on the basis of a percentage of revenue or expenses, or both, and include a minimum fee.”).

¹²⁵ Pub. L. No. 96-517, 94 Stat. 3015 (1980) (codified as amended at 7 U.S.C. § 178(j), 17 U.S.C. §§ 106, 117, scattered sections of 35 U.S.C. & 42 U.S.C. § 5908).

¹²⁶ 35 U.S.C. § 203(a)(1) (2006 & Supp. V 2012).

¹²⁷ See Saunders, *supra* note 30, at 434-36 (suggesting a similar solution that focuses on the anticompetitive use of patents as a prerequisite to compelled licensing).

judgment would be in her favor. The patentee would then be entitled to collateral estoppel on the judgment until the next maintenance fee period, immunizing the patentee from further compulsory license challenges for alleged nonuse or technology suppression until that date. But should this determination be made against the patentee, for the remainder of the patent term, the patentee would be required to license the invention—under a reasonable royalty rate—to any party that wishes to license the patent. Essentially, if a patentee is not using the monopoly rights that were given to her through the patent system, then she should not be entitled to monopoly profits. The goal is to ensure that the product enters the market to some extent, whether at the hands of the original patentee, or through compulsory licensing, which can help ensure both the local working of inventions and the diffusion of technologies.

This structure would place decisionmaking power in the hands of experts who can properly analyze the anticompetitive effects of patent nonuse and give proper weight to the public interest in disclosure, diffusion, and commercialization of beneficial technologies.¹²⁸ Flexibility and fairness in these proceedings will be crucial to ensuring that the incentive structure for inventors is not severely undermined.

It may take many years to establish reasonable royalty rate frameworks across a wide array of highly technical industries characterized by rapid marketplace innovation. The threat of compulsory licensing, however, should result in a greater number of voluntary licensing arrangements, providing further evidence of what reasonable and competitive royalty rates are in a willing buyer-and-seller marketplace. “[T]he key is to strike a balance by giving enough protection to encourage innovation, but not so much protection that it imposes excessive social burdens.”¹²⁹

CONCLUSION

The Supreme Court has noted that patent law serves a number of purposes: to incentivize inventors to devote resources to technological development, to encourage innovation and commercialization of products, and to encourage disclosure of inventions for the benefit of society.¹³⁰ The government and courts, however, have seemingly subordinated the public interest in favor of inventors’ personal economic interests. Of course, it is difficult to efficiently achieve all three purposes of patent law without recognizing one as being of

¹²⁸ See *id.* at 436 (stating that compulsory licensing would be “more flexible than current antitrust and patent misuse law”).

¹²⁹ Yosick, *supra* note 19, at 1291.

¹³⁰ See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-81 (1974).

higher importance. However, when the Constitution specifically states that exclusive rights are granted to promote the progress of science and the arts, the current patent system cannot be said to have properly balanced the inventor's incentives and financial interests with the public's interest in innovation.¹³¹

Patents are often "understood as a type of social contract between the patentee and society."¹³² Patent holders are granted limited monopolies in exchange for the disclosure of their inventions and discoveries, which foster technological development.¹³³ Yet, while society may expect that a promise of commercialization exists, or at least that the patentee will provide reasonable terms for others to use or exploit her inventions, Congress has adamantly refused to place this burden on patent holders.¹³⁴

Patent holders are largely permitted to suppress new and beneficial technologies, depriving society of the benefits of commercialization. When patents are not worked or technologies are consciously suppressed, however, courts should declare that the patentee has breached the contract.¹³⁵ Technological development and efficient use of inventions through market forces is thwarted when patent owners fail to use, license, or assign intellectual property rights for the benefit of those individuals and entities who wish to use or improve upon the technology.

It will not be easy to garner the necessary political and economic support to implement these proposed changes, but the government should be permitted to limit a patentee's exclusive rights by establishing compulsory licensing when technology has been suppressed or a patent has been unworked. The patentee would still benefit financially from the reasonable royalty, and the public would gain earlier use of the invention.¹³⁶ Compulsory licensing should only issue when the patent holder has no commercial use for her exclusive rights or has withheld inventions from the marketplace. By strictly construing the definitions of nonuse and suppression, compulsory licensing would not adversely affect the patentee's incentive to innovate. After all,

¹³¹ See Oppenheimer, *supra* note 82, at 272-73 ("The speed of technological change, particularly in the converging fields of computer software, music, video, television, and communications, coupled with the power of technology industry lobbying, have left the statutory balance tilted in favor of rewarding innovators at the expense of further innovation and of consumers.").

¹³² Saunders, *supra* note 30, at 451.

¹³³ *Id.*

¹³⁴ See generally *Cont'l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 429 (1908) (noting that Congress was aware of the policy of penalizing nonuse in other countries, and as yet had elected not to implement a similar measure in the United States).

¹³⁵ See Yosick, *supra* note 19, at 1301.

¹³⁶ See Iden, *supra* note 108, at 304-05 ("[A]warding only damages—instead of injunctions—balances the interests of the public in having use of a new invention, while still respecting the legitimate rights of the unused-patent holder.").

economic theory and patent law assume that inventors decide *ex ante* to invent to capitalize on their labor and efforts through commercialization of products and extraction of monopoly profits.¹³⁷

The Constitution grants Congress the power to decide which inventions to protect and for how long.¹³⁸ Therefore, patent rights may be subject to whatever qualifications and limitations Congress deems necessary.¹³⁹ Congress should therefore embrace compulsory licensing as a beneficial use of the power granted to it by the Constitution. By utilizing compulsory licensing to combat nonworking of patents and technology suppression, the United States will be better able to provide the proper balance between inventors' and the public's interests. Patentees will still be incentivized to disclose their inventions and will be compensated for their labor and investment. More importantly, Congress will ensure that scientific and artistic progress further flourish in the years ahead.

¹³⁷ See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-81 (1974).

¹³⁸ See U.S. CONST. art. I, § 8, cl. 8.

¹³⁹ See generally TRIPS, *supra* note 11.