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Patent Reality Checks Eliminating Patents on Fake, Impossible and Other Inoperative Inventions

Jorge L. Contreras*

Abstract

The recent assertion of patents originally held by Theranos, the defunct blood analysis company whose founders are under federal indictment for fraud, highlights the existence of patents that might claim non-existent or inoperative inventions. While such patents may ultimately be subject to validity challenges in court, their issuance nevertheless has harmful effects on markets and innovation. I propose several administrative and legislative measures directed toward the elimination of patents claiming inoperative inventions including (1) increasing USPTO efforts to detect potentially inoperable inventions, (2) heightening examination requirements, including a certification of enablement, for certain inventions, (3) enabling greater public input into the examination process, and (4) increasing penalties for fraudulent conduct before the USPTO. In addition to addressing inoperative inventions, some of these reforms could help to alleviate broader enablement concerns that have been identified by scholars over the past decade. Given the serious consequences that these issues have on markets and innovation, such measures merit serious consideration by the USPTO and Congress.

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INTRODUCTION

On March 9, 2020, two days before the World Health Organization (WHO) declared COVID-19 to be a global pandemic, a company called Labrador Diagnostics sued BioFire, a Utah-based medical device manufacturer that was about to release a diagnostic test for COVID-19. In the lawsuit, Labrador alleged that BioFire's products, which analyze blood samples for hundreds of different respiratory, gastrointestinal and other pathogens, infringed two U.S. patents that claimed various features of microfluidic testing devices. In addition to monetary damages, Labrador sought to enjoin the manufacture and sale of the infringing devices by BioFire and its French parent bioMérieux.

Labrador's surprise lawsuit against one of the first companies to develop a COVID-19 test certainly raises issues concerning its business ethics.⁴ But the most unusual, and surprising, thing about Labrador's suit was the source of the two patents that it asserted. They were two of more than one thousand patents originally assigned to Theranos,⁵ the now defunct blood analysis company founded by Stanford dropout Elizabeth Holmes in 2003. Holmes, who left the company in 2018 after settling charges brought by the Securities and Exchange Commission (SEC),⁶ is currently under federal indictment for multiple counts of criminal conspiracy and wire fraud.⁷ Holmes is named as the lead inventor on both patents asserted by Labrador.

At its peak, Theranos was valued at more than \$9 billion; it promised investors and business partners like Walgreens a portable diagnostic system that would work with no more than a pinprick of blood. But as journalist John Carreyrou first reported in the *Wall Street Journal* in 2015, 8 Theranos never produced the blood testing devices

¹ Tedros Adhanom Ghebreyesus, WHO Director-General, Opening Remarks at the Media Briefing on COVID-19 (Mar. 11, 2020), https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020.

² Labrador Diagnostics LLC v. BioFire Diagnostics, LLC, No. 1:20-cv-00348 (D. Del. filed Mar. 9, 2020). The suit also named as a defendant BioFire's French parent company, bioMérieux S.A. For additional discussion of the case see Jorge L. Contreras, *Patent Fakes – How Fraudulent Inventions Threaten Public Health, Innovation and the Economy*, BILL OF HEALTH (2020), https://papers.csm.com/sol3/papers.cfm?abstract_id=3663477.

³ U.S. Patent No. 8,283,155 (filed Oct. 8, 2009); and U.S. Patent No. 10,533,994 (filed Sept. 28, 2015).

⁴ Press coverage of the lawsuit sparked a backlash that quickly persuaded Labrador's parent company, Fortress Investments, to end the lawsuit against BioFire and bioMérieux and to offer royalty-free licenses to anyone conducting COVID-19 testing. See Craig Clough, Fortress Offers IP Rights to Fight COVID-19 After Backlash, LAW360 (Mar. 17, 2020, 5:14 PM EDT) https://www.law360.com/articles/1254102/fortress-offers-ip-rights-to-fight-covid-19-after-backlash.

⁵ Richard Lloyd, *Theranos back to the fore with Fortress assertion campaign against diagnostics business*, INTELL. ASSET MGT. (Mar. 10, 2020), https://www.iam-media.com/litigation/theranos-back-the-fore-fortress-assertion-campaign-against-diagnostics-business.

⁶ Securities & Exch. Comm. (SEC), Press Release: Theranos, CEO Holmes, and Former President Balwani Charged With Massive Fraud, Mar. 14, 2018. In her settlement of the securities fraud charges brought by the SEC in March, 2018, Holmes agreed to pay a \$500,000 penalty, be barred from serving as an officer or director of a public company for 10 years, and return a significant portion of the equity she received from Theranos. She did not, however, admit guilt to the charges.

⁷ United States v. Holmes, Indictment (N.D. Cal., filed Jun. 14, 2018).

⁸ See John Carreyrou, Hot Startup Theranos Has Struggled With Its Blood-Test Technology, Wall St. J., Oct. 16, 2015. The Theranos saga is described in detail in Carreyous's book Bad Blood: Secrets and Lies in a Silicon Valley Startup (2018), and Alex Gibney's film The Inventor: Out for Blood in Silicon Valley (HBO 2019) offer a compelling account of the sordid Theranos affair.

that brought it to national prominence and enabled it to raise hundreds of millions of dollars from investors and business partners.

By December 2017, Theranos was on the brink of collapse. At that point, Fortress Investment Group, a division of Japan's Softbank, loaned the distressed company \$100 million, secured in part by its sizable patent portfolio. When Theranos finally ceased operations in September 2018, Fortress took ownership of more than 700 Theranos patents worldwide. Fortress, which is in the business of acquiring and asserting patents, is referred to as a "patent assertion entity" (PAE) or "non-practicing entity" (NPE)—and, given its size, has recently earned the new moniker "Mega-NPE." Through its subsidiary Labrador, Fortress began to assert the Theranos patents in 2020.

Yet, according to the criminal indictment filed against Holmes and her business partner Ramesh "Sunny" Balwani, the Theranos blood analyzer never worked. Instead, to dupe business partners and investors, they allegedly used commercial third party equipment to test samples that they received. Assuming that the charges are proven, one might reasonably ask how a company that never developed its claimed technology, and went to great lengths to conceal its failures, could have obtained hundreds of patents protecting that non-existent technology. In other words, how could the U.S. Patent and Trademark Office (USPTO) issue multiple patents for a technology that was, at a minimum, incomplete, and at worst, fraudulent?

A. THREE FLAVORS OF INOPERATIVE INVENTION

The Labrador litigation sheds light on a disturbing reality about patents: more than a few of them cover inventions that were never made, or at least never worked. Concerns about fraudulent patents and patent assertions have existed since the earliest days of the patent system and were expressed by President James Madison as early as 1816.¹⁵ Today, non-existent inventions are referred to as "inoperative," ¹⁶

⁹ John Carreyrou, *Blood-Testing Firm Theranos Gets* \$100 Million Lifeline From Fortress, Wall St. J., Dec. 24, 2017. According to news reports, Fortress only disbursed \$65 million of the loan amount before Theranos defaulted. Francine McKenna, *Theranos closes deal with Fortress to shut down embattled firm*, Market Watch, (Sept. 17, 2018), https://www.marketwatch.com/story/theranos-closes-deal-with-fortress-to-shut-down-embattled-firm-2018-09-13.

¹⁰ McKenna, *supra* note 9. When Fortress extended its loan to Theranos in 2017, Theranos assigned its patents to a wholly-owned subsidiary named Theranos IP Company LLC (TIPC) and granted a security interest in the portfolio to Fortress. When Theranos defaulted on the loan conditions, Theranos assigned ownership of TIPC to Fortress. *See* Carreyrou, *supra* note 9, McKenna, *supra* note 9. In March 2020, a few days before filing suit against BioFire and bioMérieux, Fortress changed the name of TIPC to Labrador Diagnostics LLC. U.S. Pat. & Trademark Off., Assignment abstract of title for Application 12576197, accessed Jun. 3, 2021.

¹¹ Richard Lloyd, The era of the mega-NPE is upon us and that wasn't part of Big Tech's plans, INTELL. ASSET MGT., Jun. 26, 2020.

¹² Richard Lloyd, Theranos back to the fore with Fortress assertion campaign against diagnostics business, INTELL. ASSET MGT., Mar. 10, 2020.

¹³ United States v. Holmes, Indictment (N.D. Cal., filed Jun. 14, 2018).

¹⁴ I do not contend that Theranos developed no useful technology at all, nor have I reviewed all of its thousands of patent claims.

¹⁵ James Madison, Letter to Congress, Apr. 11, 1816, https://founders.archives.gov/documents/Madison/03-10-

^{02-0383 (&}quot;I recommend also that further restraints be imposed on the issue of patents to wrongful claimants, and further guards provided against fraudulent exactions of fees by persons possessed of patents") (I thank Jonathan Stroud for bringing this letter to my attention).

¹⁶ See Manual of Patent Examining Procedure (MPEP), § 2107.01, Part II, "Wholly Inoperative Inventions; 'Incredible'

and for lack of a better term, I call the patents that cover these inoperative inventions as "bad" (as in rotten, not evil) patents. I divide the world of inoperative inventions into three basic categories: Fakes, Fictions, and Mistakes.

Fakes

Some claimed inventions are simply fraudulent – their inventors know that they don't work, yet they seek patent protection anyway. Theranos is only one of numerous examples of this practice. Another prominent example arose in 2014, when the USPTO granted a patent for a human embryonic stem cell line derived from a cloned human embryo to a group of fifteen Korean inventors led by Dr. Hwang Woo Suk. ¹⁷ The patent was based on an international application filed in December 2003. In 2004, Hwang and his collaborators received global acclaim when they published their results in the prestigious journal *Science*, ¹⁸ with a follow-up *Science* article in 2005. ¹⁹ But suspicions of data falsification soon emerged, and in January 2006, Hwang's university released the results of an investigation finding that his results were fabricated. ²⁰ *Science* quickly retracted both papers and, in 2009, Hwang was convicted of fraud and research embezzlement; he received a two-year suspended prison sentence. ²¹ Nevertheless, Hwang's patent applications were unaffected, and at least one U.S. patent, assigned to a Korean biotech firm reported to be controlled by Hwang, issued in 2014. ²²

Even more recently, the journal *STAT* reported that the CEO of Athira Pharma was placed on leave for allegedly falsifying data in four scientific papers that formed the basis for the company's patents on treatments for Alzheimer's and other neurodegenerative diseases.²³

2. Fictions

Rather than perpetrating fraud, some inventors honestly, but incorrectly, believe that they have made important new discoveries. These applicants have claimed

Utility" (9th ed., Rev. 10.2019, last revised Jun. 2020).

¹⁷ Human Embryonic Stem Cell Line Prepared By Nuclear Transfer Of A Human Somatic Cell Into An Enucleated Human Oocyte, U.S. Patent No. 8,647,872 (filed Dec. 9, 2011) (issued Feb. 11, 2014).

¹⁸ Woo Suk Hwang, et al., Evidence of a Pluripotent Human Embryonic Stem Cell Line Derived from a Cloned Blastocyst, 303 Science 1669 (2004) (retracted Jan. 12, 2006).

¹⁹ Woo Suk Hwang, et al. *Patient-Specific Embryonic Stem Cells Derived from Human SCNT Blastocysts*, 308 SCIENCE 1777 (2005) (retracted Jan. 12, 2006).

²⁰ Seoul Natl. Univ., Summary of the Final Report on Professor Woo Suk Hwang's Research Allegations by Seoul National University Investigation Committee, Jan 10, 2006 https://en.snu.ac.kr/snunow/snu_media/news?md=v&bbsidx=71497. See also Barry Fox, Disgraced Cloning Pioneer Could Keep His Patents, New Scientist (Jan. 18, 2006), https://www.newscientist.com/article/dn8601-disgraced-cloning-pioneer-could-keep-his-patents/.

²¹ Choe Sang-Hun, Disgraced Cloning Expert Convicted in South Korea, N.Y. Times, Oct. 26, 2009.

²² See D. Yvette Wohn, Hwang Gets Ownership Of (Disputed) Stem Cell Technology, D. Yvette Wohn (Jan. 12, 2009), https://yvettewohn.com/2009/01/12/hwang-gets-ownership-of-disputed-stem-cell-technology/ (reporting that Seoul National University assigned the patent rights to H-Bion, a firm created by Hwang in May 2008, for approximately US\$100,000, the cost of prosecution). See also Andrew Pollack, Disgraced Scientist Granted U.S. Patent for Work Found to be Fraudulent, N.Y. Times, Feb. 14, 2014.

²³ Olivia Goldhill, *Athira Pharma CEO placed on leave amid allegations of altered images in her research papers*, STAT (Jun. 17, 2021), https://www.statnews.com/2021/06/17/athira-pharma-ceo-placed-on-leave-amid-allegations-of-altered-images-in-research-papers/ (referencing U.S. Pat. No. 8,598,118 assigned to Washington State University and exclusively licensed to Athira).

inventions ranging from miraculous cures to fantastical spacecraft.²⁴ In the 1990s, the University of Utah (progenitor of BioFire, the defendant in Labrador's patent suit), spent half a million dollars pursuing patents on the debunked "cold fusion" technology allegedly discovered by chemists Stanley Pons and Martin Fleischmann over a glass of whiskey in Pons's kitchen.²⁵ Though the University eventually gave up its efforts to patent the elusive technology, other devotees persist in researching, and patenting, cold fusion.²⁶ Some of these cold fusion "believers" are more likely to be optimists unswayed by prevailing scientific orthodoxy than outright fraudsters. Nevertheless, their patents cover technologies that do not, and in the view of most scientists, cannot ever work.²⁷

An even greater degree of optimism was exhibited by inventor Boris Volfson, who in 2005 was awarded U.S. Patent No. 6,960,975 for "a space vehicle propelled by the pressure of inflationary vacuum state" that "may move at a speed approaching . . . light-speed." Not surprisingly, Mr. Volfson's spacecraft never left the immediate orbit of his imagination.

Science fiction-inspired patents are, it turns out, popular around the world, as evidenced by a 1972 example issued to the usually-staid British Railways Board for a saucer-shaped spacecraft propelled by a laser-ignited thermonuclear fuel.²⁸ Conveniently, a "passenger cabin" is also included.

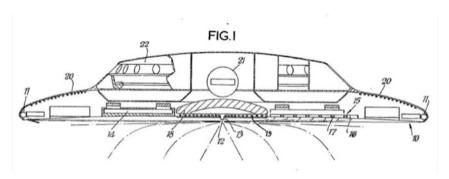


Figure from Patent GB1310990, "Space Vehicle"

²⁴ See, e.g., Extracts of Aristolochia Paucinervis Pomel and Uses Thereof, U.S. Patent No. 8,003,137 (filed May 9, 2008) (issued Aug. 23, 2011); the unlikely suggestion that the patented substance can be useful in treating cancer is discussed in Janet Freilich, *Prophetic Patents*, 53 U.C. Davis L. Rev. 663, 666 (2019); Space Vehicle Propelled By The Pressure Of Inflationary Vacuum State, U.S. Patent No. 6,960,975 (filed Mar. 14, 2005) (issued Nov. 1, 2005); Space Vehicles, GB Patent No. 1,310,990 (filed Dec. 11, 1970) (issued Mar. 10, 1972).

²⁵ Steve Nadis, *Utah university finally drops out of cold-fusion patent chase*, 393 Nature 7 (1998). *See, generally*, Gary Taubes, Bad Science: The Short Life and Weird Times of Cold Fusion (1993).

²⁶ See Stephen K. Ritter, Cold fusion died 25 years ago, but the research lives on, 94 CHEMICAL & ENGINEERING NEWS, Issue 44, p. 34 (2016) ("In 2014, [a scientist] asked Mills [the inventor] if he had ever isolated hydrinos, and although Mills had previously written in research papers and patents that he had, Mills replied that he hadn't and that it would be "a really, really huge task."). See also Lower-Energy Hydrogen Methods And Structures, U.S. Patent No. 6,024,935 (filed Mar. 21, 1997) (issued Feb. 15, 2000).

²⁷ See, e.g., Elizabeth Gibney, Google revives controversial cold-fusion experiments, 569 Nature 611, 611 (2021) (according to Oxford physicist Frank Close, "There is no theoretical reason to expect cold fusion to be possible, and a vast amount of well-established science that says it should be impossible.")

²⁸ Space Vehicle, GB Patent No. 1,310,990 (filed Dec. 11, 1970) (issued Mar. 10, 1972).

But not all fictional inventions are so farfetched. As Professor Janet Freilich has recently observed, a full 17% of the experiments described in recent U.S. chemistry and biology patents were never performed.²⁹ Rather, they were made up to illustrate potential, hoped-for uses of a patented invention. Surprisingly, these so-called "prophetic examples" are perfectly legal and can help to establish additional protected uses of a patented invention, even if those uses do not in fact work.³⁰

3. Mistakes

The problem of patents covering non-existent technologies does not end with applicants who are fraudulent or delusional. The USPTO also receives a large number of applications from inventors who believe that they have made a legitimate discovery, only to find out later—sometimes after their patents have issued—that they did not actually discover what they claimed, or anything at all. The problem arises, in part, from "gun jumping"—claiming a discovery before it is validated.³¹ Of course, such mistakes occur in science as well. The difference is that in science, when a published finding is revealed to be incorrect or based on flawed or incomplete data,³² the scientific paper making the claim can be retracted or corrected. The same is not true of patents, which, as Professor Freilich has observed, seem impervious to subsequent corrections of technical understanding.³³

This work supports prior research by Professor Freilich demonstrating, based on the methodological soundness of experiments reported in a large sample of patent documents that, in reality, "most [patented] inventions likely do not work."³⁴

B. WHY BAD PATENTS MATTER

Why does any of this matter? Some have argued that no harm is done by patents on inoperative inventions. Commenting on Mr. Volfson's improbable 2005 patent claiming an antigravity-driven spacecraft, a senior USPTO advisor opined that "[i]t

²⁹ Freilich, *Prophetic Patents*, *supra* note 24, at 668. Over the past fifteen years, numerous scholars have criticized the practice of using prophetic examples in patent applications. *See id*. at 666–67 n.10 (collecting literature).

³⁰ See discussion in Part C.3, below.

³¹ Numerous scholars have identified this problem. See, e.g., Mark A. Lemley, Ready for Patenting, 96 B.U. L. REV. 1171 (2016) ("In an important class of cases—those in which the inventor has an idea but does not yet know if it will work—the patent system encourages the inventor to patent first and figure it out later, if at all"); Lisa L. Ouellette, Pierson, Peer Review, and Patent Law, 69 Vanderbill L. Rev. 1825, 1832 (2016) ("in practice, patents often are awarded too early"), Mark A. Lemley et al., Life After Bilski, 63 STAN. L. Rev. 1315, 1330-31 (2011) (introducing "gun jumping" terminology), Christopher A. Cotropia, The Folly of Early Filing in Patent Law, 61 HASTINGS L.J. 65 (2009) ("The United States patent system is intentionally structured to encourage patent filing early in an invention's development.")

³² Some retractions result from the uncovering of scientific fraud or other unethical practices – these fall under the category of "Fakes", discussed above. In the category of "Mistakes", I address retractions resulting from the discovery of experimental design flaws, lapses in data or other inadvertent, yet invalidating, occurrences.

³³ Professor Freilich and Soomi Kim studied patents matched to disclosures in scientific papers, which are common in the biotechnology field. They report in a forthcoming article that retraction of the underlying paper had little or no effect on the examination, issuance or later citation of those patents, notwithstanding the withdrawal of the scientific claims underlying them. Janet Freilich & Soomi Kim, *Is the Patent System Sensitive to Information Quality?* (working paper, 2021) at *2, https://sites.bu.edu/tpri/files/2021/05/Freilich_Kim_Information-Quality.pdf. This phenomenon is well-illustrated by the case of Dr. Hwang, who continued to cite two retracted *Science* papers in his patent application, which was eventually granted. *See* '872 Patent, *supra* note 17.

³⁴ Janet Freilich, The Replicability Crisis in Patent Law, 95 INDIANA L.J. 431, 431 (2020).

doesn't cause any problems because the patents are useless." In a similar vein, one patent attorney said of Dr. Hwang's fraudulent stem cell technology, "[d]oes it really matter if the man made up his results? Let him try and sell it." A prevailing view, both at the USPTO and the patent bar, seems to be that patents on non-existent and impossible inventions are mere curiosities: unfortunate but ultimately harmless.

But Labrador's suit against BioFire is stark evidence to the contrary. The following are examples of the very real harms that can flow from bad patents.

- 1. A bad patent can act as prior art preventing later inventors from receiving a patent they deserve after actually developing the claimed technology.³⁷
- 2. The holder of a bad patent can enforce the patent against others who are more successful at developing the technology (i.e., a bad patent is not necessarily an unenforceable patent). Exacerbating this problem: an issued patent is presumed to be valid,³⁸ making it nontrivial to challenge when asserted. It is important to remember that such enforcement is not limited to litigation proceedings. One recent case involving an allegedly invalid patent on pet nutritional supplements illustrates the ability of patent holders, without the need to demonstrate the validity or infringement of their patents, to have listings for competing products removed from Amazon.com.³⁹
- 3. Even if a bad patent can eventually be invalidated in court (and not all can), patent litigation is costly, especially for small and medium sized enterprises (SMEs). Some may prefer to settle infringement claims rather than incur the cost of litigation, leaving the bad patent on the books for assertion against others.⁴⁰
- 4. The existence of bad patents can itself chill new research and innovation, thus reducing market entry, technology development and competition.⁴¹

More than half a century ago, the Supreme Court recognized in *Lear v. Atkins* the threat that bad patents pose to the market and innovation and identified "the important public interest in permitting full and free competition in the use of ideas which are in reality a part of the public domain."⁴² In short, bad patents allow unscrupulous actors to put fences around not-yet-invented technologies that should still be part of the public domain.

³⁵ Philip Ball, *Antigravity craft slips past patent officers*, 438 Nature 139 (2005) (quoting Alan Cohan, an adviser at the USPTO Inventors Assistance Center).

³⁶ Fox, *supra* note 20 (quoting George Schlich, a patent attorney and counsel for Stem Cell Sciences).

³⁷ This outcome may have occurred with respect to one of Theranos's patents. *See* Freilich & Kim, *supra* note 33, at 1. ³⁸ 35 U.S. Code § 282 ("A patent shall be presumed valid.... The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.").

³⁹ See Garmon Corp. v. Vetnique Labs, LLC, Case No. 19 C 8251, Memorandum Opinion and Order (N.D. Ill., Jun. 22, 2020).

⁴⁰ This preference is, in fact, the motivating business rationale behind many patent suits brought by PAEs. *See, e.g.*, Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2126 (2013). a growing number of trolls are interested in quick, low-value settlements for a variety of patents. These plaintiffs do not want to go to trial and are thus not particularly interested in the quality of their patents or whether they are infringed. Rather, they rely on the high cost of patent litigation—a median of \$5.5 million for substantial cases that go to trial, by one recent estimate—to induce the parties they sue to settle for small amounts of money rather than pay millions to their lawyers.

⁴¹ See Amgen Inc. v. Sanofi, 2021 U.S. App. LEXIS 18379, *7 (Fed. Cir. 2021) ("Drawing a broad fence around subject matter, without filling in the holes . . . discourages invention by others").

⁴² Lear, Inc. v. Atkins, 395 U.S. 653 (1969).

It is hard to imagine what might have happened if the Patent Office had allowed German aviation pioneer Otto Lilienthal, French-born engineer Octave Chanute, English machine gun inventor Sir Hiram Maxim, or the Smithsonian's Professor Samuel Langley to patent the idea of a fixed-wing piloted aircraft before Wilbur and Orville Wright had actually reduced their monumental achievement to practice. Each of these early aviation enthusiasts had conceived numerous ideas for fixed-wing aircraft, though none of them worked in practice. Would the historic flight at Kitty Hawk have happened if one of these competitors had been able to capture within the scope of broad claims the ingenious wing-warping, rudder, and propeller design eventually developed by the Wrights? Maybe not, and the history of aviation might have been changed forever.

For all of these reasons, there is a strong societal interest in preventing patents on fraudulent, imaginary and non-existent inventions from being issued and asserted.

C. EXISTING METHODS TO ADDRESS INOPERATIVE INVENTIONS

The threat of inoperative inventions is well-known, and several existing legal mechanisms have been used, with differing degrees of success, to prevent their patenting.

1. Inequitable Conduct. Every patent applicant has "a duty of candor and good faith in dealing with the [USPTO], which includes a duty to disclose ... all information known to that individual to be material to patentability."⁴⁵ The failure to comply with this duty of candor is referred to as inequitable conduct, and the USPTO's rules provide that "no patent will be granted on an application in connection with which fraud on the [USPTO] was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct."⁴⁶ While these rules are necessary, few cases of inequitable conduct are identified or pursued during prosecution.⁴⁷ Such cases are difficult for examiners to identify under existing practices, ⁴⁸ and because prosecution is largely an *ex parte* proceeding, examiners are

⁴³ See David McCullough, The Wright Brothers 28, 32, 89, 92–93, 96 (2015).

⁴⁴ The Wrights filed their own patent application on March 23, 1903, almost a year before their historic flight at Kitty Hawk on December 17 of that year. Flying Machine, U.S. Patent No. 821,393 (filed Mar. 23, 1903) (issued May 22, 1906). ⁴⁵ 36 CFR § 1.56(a).

⁴⁶ Id.

⁴⁷ See 6A Chisum on Patents § 19.03[6][a] ("The question of fraud or inequitable conduct has been most commonly raised after a patent issues"). If a patent obtained through fraud is enforced, the infringer may raise inequitable conduct as an affirmative defense and, if successful, the patent will be held unenforceable. See Precision Instrument Mfg. Co. v. Automotive Maintenance Mach. Co., 324 U.S. 806 (1945) (patent obtained through fraud or inequitable conduct is not enforceable). In addition, an antitrust claim may be brought with respect to the attempted enforcement of a patent obtained through fraud. See Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172, 177 (1965) ("the enforcement of a patent procured by fraud on the Patent Office may be violative of § 2 of the Sherman Act provided the other elements necessary to a § 2 case are present.").

⁴⁸ This is among the many problems that arise from what Professor Freilich identifies as examiners' failure to "dig" adequately into the information that they obtain about an application. *See* Janet Freilich, *Ignoring Information Quality*, 89 FORDHAM L. Rev. 2113, 2117 (2021). While examiners have broad statutory powers to request information from applicants, 37 C.F.R. 1.105, it is difficult for an examiner to know what he or she does not know. That is, unless

not aided by opposing parties with broad discovery powers. Even when potential inequitable conduct is identified during prosecution, most cases relate only to an applicant's failure to disclose prior art that could preempt some or all of its claims.

Cases of outright fraud involving the patenting of inoperative inventions appear to be much less frequent (or have at least been reported less frequently).⁴⁹ And even when such cases emerge, the USPTO appears to adopt a lenient approach that allows applicants to correct inaccurate or omitted statements without penalty.⁵⁰ For example, during the prosecution of the application claiming Dr. Hwang's discredited stem cell invention, the examiner noted that "a post-filing investigation . . . discovered that [the] applicant falsified data resulting from the claimed method," even citing a news exposé titled "Disgraced Cloning Pioneer Could Keep His Patents." Nevertheless, the examiner helpfully suggested that "[a] declaration filed under 35 U.S.C. § 1.132 attesting to data demonstrating . . . the claimed method may be sufficient to overcome the above rejection." Not surprisingly, Hwang supplied the recommended declaration⁵³ and his claims were allowed without further inquiry. ⁵⁴

- 2. Utility. Section 101 of the Patent Act requires that an invention be "useful" in order to be patented, and longstanding judicial precedent has established that inoperative inventions are not useful. However, as explained by the USPTO, "[s] ituations where an invention is found to be 'inoperative' and therefore lacking in utility are rare, and rejections maintained solely on this ground by a federal court even rarer. In order to meet this standard, an invention must be "totally incapable of achieving a useful result" and it is seldom applied outside of facially "incredible" claims to inventions such as perpetual motion machines.
- 3. *Enablement*. The most effective mechanism for avoiding the issuance of bad patents may be the so-called "enablement" requirement under Section 112 of the Patent Act. ⁵⁹ It

facts suggesting an applicant's inequitable conduct come to the examiner's attention, it is not surprising that relevant information is often not requested.

⁴⁹ Judge Randall Rader notes the expansion of the inequitable conduct doctrine from one originally directed to cases of "egregious fraud, perjury, and extortion" to its more common use today as an overarching mechanism for "eliciting prior art from a patent applicant." Randall R. Rader, *Always at the Margin: Inequitable Conduct in Flux*, 59 AM. U. L. Rev. 777, 781 (2010). Judge Rader's sentiments have been echoed by numerous commentators. *See, e.g.*, David O. Taylor, *Patent Fraud*, 83 Temple L. Rev. 49 (2010) (arguing that the doctrine of inequitable conduct should be reduced to one of patent fraud).

⁵⁰ See Chisum, supra note 47, at § 19.03[6][a][iii] (Curing Inequitable Conduct).

⁵¹ See Non-Final Office Action dated Oct. 3, 2012, U.S. Patent Application Serial No. 13/316,199, p. 5 (citing Fox, supra note 20).

⁵² *Id.* at 6.

⁵³ Response to Office Action dated Apr 3, 2013, U.S. Patent Application Serial No. 13/316,199.

⁵⁴ Notice of Allowance dated Oct. 24, 2013, U.S. Patent Application Serial No. 13/316,199.

⁵⁵ See MPEP, supra note 16, at § 2107.01, Part II (citing Newman v. Quigg, 877 F.2d 1575, 1581 (Fed. Cir. 1989); In re Harwood, 390 F.2d 985, 989 (CCPA 1968)).

⁵⁶ See MPEP, supra note 16, at § 2107.01, Part II.

⁵⁷ Brooktree Corp. v. Advanced Micro Devices, Inc., 977 F.2d 1555, 1571 (Fed. Cir. 1992).

⁵⁸ See MPEP, supra note 16, at § 2107.01, Part II. See also Cotropia, supra note 31, at 75-76.

⁵⁹The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

³⁵ U.S.C. § 112(a).

provides that each patent application must contain sufficient detail to enable one skilled in the art to practice the invention. It is (supposedly) not enough to say, "it would be nice to run a DNA test for hundreds of different pathogens using a single drop of blood—and that's my invention!" The inventor must actually inform the USPTO, and the world, how to make the claimed invention. The theory is that if the specification adequately instructs others how to make the invention, then we can assume that the inventor was able to reduce the invention to practice, and the invention is not inoperative.

There are two general ways that patents fail to meet the enablement requirement: the invention was never successfully reduced to practice, or the specification fails to describe the invention in sufficient detail. The latter stems from deficient (or overly aggressive) claim drafting, even for inventions that do, actually, work, at least under some circumstances. This type of failure is often classified as a failure under the "written description" requirement of Section 112.⁶⁰ I will focus not on written description problems, but on what I view as the more serious enablement problem: inventions that are not enabled because they were never actually reduced to practice by their inventors.

Enablement Rationales. The enablement requirement and its failings have been the subject of significant scholarly debate in recent years.⁶¹ The root of the problem is that a patent application must merely describe the steps involved in making an invention, but need not show, or even aver, that the invention will work or achieve expected results. As the *Chisum* treatise notes, so long as the specification adequately describes the invention, "an applicant need not have reduced the invention to practice prior to filing."⁶²

At a basic level, this is reasonable. The researcher who has created a new molecular entity effective against tumor cells should not have to wait until clinical trials are completed years later to claim the molecule as an anti-tumor therapy. Likewise, the inventor of a new satellite navigation system need not launch a billion dollar satellite into orbit in order to test and validate the invention. Reduction to practice can occur in the lab, before full commercial exploitation has occurred, and even if commercial or other factors might ultimately make the invention difficult or uneconomical to produce on a commercial basis. As the court held in *Coffee v. Guerrant*, A perfect invention does not necessarily mean a perfectly constructed machine, but one so constructed as to embody all the essential elements of the invention in a form that would make them practical and operative; so as to accomplish the result in a reasonable practical way."64

Likewise, the patent examiner who evaluates the application need not perform tests or experiments to verify what the applicant claims. Such a requirement would be both unreasonable and impractical. Examiners do not have laboratories, equipment or reagents at their disposal to verify every applicant's scientific assertions, nor even the luxury to read much of the scientific literature in the field. They must simply take

⁶⁰ See Ariad Pharms., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010).

⁶¹ See, e.g., Ouellette, Peer Review, supra note 31; Lemley, Ready, supra note 31; Sean Seymore, The Teaching Function of Patents, 85 Notre Dame L. Rev. 621 (2010); Cotropia, supra note 31.

^{62 3} CHISUM ON PATENTS § 7.03 (2021).

⁶³ See, e.g., Hildreth v. Mastoras, 257 U.S. 27 (1921). It is not necessary, in order to sustain a generic patent, to show that the device is a commercial success. The machine patented may be imperfect in its operation; but if it embodies the generic principle and works, that is, if it actually and mechanically performs, though only in a crude way, the important function by which it makes the substantial change claimed for it in the art, it is enough.

⁶⁴ Coffee v. Guerrant, 3 App. D.C. 497, 499 (1894).

the written description provided by the applicant at face value, judging only that it discloses the invention in enough detail that someone "skilled in the art" would be able to produce it without undue experimentation. But that is simply an assessment of the application's level of detail, not its scientific or technical merit.

Yet while it is reasonable not to require an applicant to have created every possible variant of its invention before obtaining a patent, we may have gone too far in the direction of leniency toward applicants. Today, applicants can seek patents before they have actually reduced *any* version of their invention to practice or demonstrated that their invention *can* work at all. This state of affairs seems inconsistent with early case law establishing the reduction to practice standard. The inventor of the tumor-suppressing molecule described above should at least have laboratory results suggesting a high probability that the molecule will suppress tumors, and the satellite navigation inventor should be able to demonstrate its invention through computer simulations or laboratory mock-ups.

Prophetic Examples. Among the many leniencies that are offered to applicants is the ability to support claims through the use of prophetic examples—experiments that were never conducted—in the patent specification.⁶⁵ Recently, the USPTO adopted much-needed rules requiring applicants to more clearly identify prophetic versus actual experiments.⁶⁶ This measure was adopted, in part, at the urging of Senator Thom Tillis, who based his recommendation on recent work by Professors Lisa Ouellette and Heidi Williams.⁶⁷ For obvious reasons, clarifying that experiments described in a patent specification were not actually conducted is important. Yet this clarification does not itself eliminate the fundamental problem caused by the use of prophetic examples. As Ouellette and Williams note, their proposed clarification does not address the larger question "whether patents on completely untested inventions should be allowed."⁶⁸ The time to answer that question is now.

Constructive Reduction to Practice. Another issue is the doctrine of "constructive" reduction to practice. As noted above, an inventor must reduce an invention to practice in order to obtain a patent. Yet, over the years, the doctrine of "constructive" reduction to practice has evolved to provide that the date of an inventor's reduction to practice can be established as the date on which a patent application enabling the invention under Section 112 is filed.⁶⁹ As the *Chisum* treatise observes, this rule "strikes a curious balance in terms of policy."⁷⁰ The doctrine of constructive reduction to practice has attracted significant academic criticism.⁷¹ As observed by Professor Mark Lemley, "[a]n inventor is better off filing a patent application as

⁶⁵ See, e.g., Freilich, Prophetic Patents, supra note 24.

⁶⁶ U.S. Patent & Trademark Off., Properly Presenting Prophetic and Working Examples in a Patent Application, 86 Fed. Reg. 35074 (Jul. 1, 2021).

⁶⁷ Letter from Sen. Thom Tillis to Hon. Andrei Iancu, Under Secretary of Commerce for Intellectual Property, Director, U.S. Patent & Trademark Off., Aug. 10, 2020 (citing Lisa Larrimore Ouellette & Heidi Williams, *Reforming the Patent System*, HAMILTON PROJECT (2020)).

⁶⁸ Ouellette & Williams, supra note 67, at 4.

⁶⁹ See Frazer v. Schlegel, 498 F. 3d 1283, 1288 (Fed. Cir. 2007) ("The filing of a patent application is a constructive reduction to practice of the invention disclosed therein.").

⁷⁰ 3A Chisum on Patents § 10.05[1] (2021).

⁷¹ See, e.g., Seymore, supra note 61, at 628–30 (referring to constructive reduction to practice as a "legal fiction" and proposing alternatives); Cotropia, supra note 31, at 120 (proposing the abolition of the doctrine in favor of actual reduction to practice).

early as possible, before—or perhaps instead of—building a prototype or testing the invention. . . . As against the inventor who went straight to the patent office, those who seek to build and test their inventions are at a disadvantage."⁷²

D. PATENT REALITY CHECKS

The problem of bad patents is a broad and varied one, but one thing that can help to address it is a greater focus at the patent examination stage on whether claimed inventions are real. To that end, I offer a few modest "reality checks" to help examiners more closely align patent allowances to technical realities, and to deter fraudulent behavior at the USPTO.

1. Increase Vigilance for Inoperable Inventions

At the examination stage, the USPTO should check inventor names against lists of retracted papers, 73 criminal indictments, securities investigations, disciplinary proceedings, scientific misconduct allegations and other forms of behavior that could give rise to questions about the assertions made in an application. 74 The USPTO could also flag other questionable applications such as miracle cures, cold fusion and interstellar spacecraft. 75 Finally, as Professor Freilich has suggested, when examiners conduct an initial search concerning an application, they should seek information published both before and *after* the priority date of the application. Post-priority information may not be relevant for prior art purposes, but it could identify retracted papers as well as public allegations and controversy surrounding a particular invention. 76 An application flagged for any of these reasons could be subject to heightened examination (see below). 77

Demonstrate Enablement

If an application is flagged as potentially claiming an inoperative invention, an examiner should be able to request verification that the invention has actually

⁷² Lemley, Ready, supra note 31, at 1178-79.

⁷³ Such lists are easily accessed via scientific watchdog sites such as retractionwatch.org.

⁷⁴ See Contreras, *Patent Fakes*, *supra* note 2. Professor Freilich suggests that certain examiner searching tasks could be augmented with artificial intelligence. *See* Janet Freilich, *Ignoring Information Quality*, 89 FORDHAM L. REV. 2113, 2154–55 (2021).

⁷⁵ From 1994 to 2015 the USPTO operated a "Sensitive Application Warning System" (SAWS) that flagged "sensitive applications". Some of the flagged applications involved unlikely inventions including panacea cures for conditions ranging from AIDS to baldness. It has been alleged that this system delayed prosecution of numerous applications. It is unclear why this program was eliminated. See Joe Mullin, USPTO ends "warning system" for outlandish patents, ars tecHnica (Mar. 5, 2015, 7:10 PM), https://arstechnica.com/tech-policy/2015/03/uspto-ends-program-for-patents-that-could-create-unwanted-media-coverage/.

⁷⁶ See Freilich, Information Quality, supra note 74, at 2146-47.

⁷⁷ The USPTO's reintroduction of an application monitoring system such as SAWS (see note 75, supra) could also have the benefit of triggering heightened review of enabled yet stupefyingly obvious inventions, such as the notorious dog toy shaped like a stick. U.S. Pat. No. 6,360,693, "Animal Toy" (Issued Mar. 26, 2002). See Jorge L. Contreras, Silly Patents, Common Knowledge and the Elusive Prior Art of Everyday Life (DePaul Center for Intellectual Property Law & Information Technology, Intellectual Property Scholars Conference, 2015), https://law.depaul.edu/about/centers-and-institutes/center-for-intellectual-property-law-and-information-technology/programs/ip-scholars-conference/Documents/ipsc_2015/abstracts-papers-presentation/Contreras], abstract.pdf.

been reduced to practice and adequately enabled. This verification could come in several forms. First, as several scholars have previously suggested, applicants could be required during prosecution to provide more information about the enablement of their inventions, either as a general rule or upon request of the USPTO.78 Yet this approach may be of limited value when inventors are less than forthright, as might occur with respect to fraudulent inventions. Thus, a more effective approach may be to require an applicant to demonstrate the practice of its invention to a third party auditor or peer reviewer, or to convince the reviewer that reduction to practice is both feasible and likely.⁷⁹ Among the benefits of such a review and certification, in addition to discouraging the issuance of bad patents, is the possibility of giving patents that have received a positive certification a presumption of enablement if their validity is later challenged under § 112. Such a presumption could operate to establish the "gold-plated patents" originally proposed by Professors Doug Lichtman and Mark Lemley⁸⁰ and more recently advocated by Senator Tillis to make patents that have undergone stringent validity review less vulnerable to validity challenges after issuance. 81 The designation of such patents could be recorded and displayed by the USPTO directly on patent records, making this information easily accessible to the market.⁸² These benefits could give the applicant an incentive to seek certification as to enablement, assuming that its invention is real.

3. Engage the Public

Over the years, commentators have observed that members of the public (academics, industrial researchers, software developers, etc.) are more likely to appreciate the technical challenges faced by a given invention than examiners. As such, numerous proposals have been made to enable members of the public to

⁷⁸ See Freilich, Information Quality, supra note 74, at 2145 ("Instead of requiring examiners to further dig into the quality of evidence in patent applications, the system should ask applicants to provide additional support for their statements"), Lemley, Ready, supra note 31, at 1191 ("We could, for instance, impose a stricter test for disclosing the invention to the world on an inventor who cannot point to working examples—perhaps requiring her to explain the principles behind her invention if she cannot prove that it works in practice" (thanking Josh Sarnoff for this suggestion)), Seymore, supra note 61, at 642–43 ("the examiner should have the authority to request working examples"). Professor Seymore also notes the USPTO's seldom-exercised authority to request a physical working model of an invention. Seymore, supra note 61, at 642 n.103.

⁷⁹ Unlike others, this proposal would not require every applicant to reduce its invention to practice. *See* Cotropia, *supra* note 31, at 120 (discussing a proposal "requiring all applicants to actually reduce their invention to practice—that is, actually implement the invention and observe that it works for its intended purpose-before receiving a patent"). *But see* Lemley, *Ready, supra* note 31, at 1188 ("In some fields, such as semiconductor manufacturing, designers may not be able to actually build and test their inventions without a great deal of time and money—money that inventors may not be able to pay.") Rather, it would only be imposed in situations in which the likelihood of a non-existent invention is high.

⁸⁰ Doug Lichtman & Mark A. Lemley, Rethinking Patent Law's Presumption of Validity, 60 Stan. L. Rev. 45, 50, 61–63 (2007). Cf. Michael S. Greve, Exceptional, After All and After Oil States: Judicial Review and the Patent System, 26 B.U. J. Sci. & Tech. L. 101, 142 (2020) (referring to "gold-plating" of patents resulting from judicial review under Section 145 of the Patent Act).

⁸¹ Politico, *Tech of the Town - Lawmakers Examine Ways To Improve Patent Quality*, Jun. 22, 2021 ("Ranking member Thom Tillis (R-N.C.) will . . . advocate for creating a 'gold-plated' patent that would involve a more rigorous review process, making it 'virtually impossible to challenge'—an idea Barack Obama backed during his 2008 campaign.").

⁸² For a discussion of a proposed annotation system, see Jorge L. Contreras, Shepardizing Patents, PATENTLY-O (Jun. 16, 2021), https://patentlyo.com/patent/2021/06/contreras-shepardizing-patents.html.

offer input to the USPTO with respect to particular patent applications. ⁸³ Between 2007 and 2011, the USPTO and New York Law School operated a pilot program called "Peer to Patent", which allowed "citizen-experts" to review selected patent applications (mostly relating to computing, software and business methods), to identify and rate prior art, and to offer other input to the examination process. ⁸⁴

It is not clear why the Peer to Patent program was discontinued after 2011, but it is possible that the USPTO believed that new mechanisms for challenging patents under the America Invents Act (AIA)⁸⁵ might serve a similar function. For example, as amended by the AIA, Section 122(e) of the Patent Act permits members of the public to submit to the USPTO prior art pertaining to any patent application for six months after its publication,⁸⁶ and Section 311 permits members of the public to bring an *inter partes* review (IPR) proceeding to challenge the novelty or nonobviousness of an issued patent within nine months of its issuance.⁸⁷

Neither of these procedures, however, allows challenges to the *enablement* of a patented invention.⁸⁸ Yet in order to address the issue of inoperative inventions, greater public input into enablement is required. Accordingly, the pre-issuance submission procedure under 35 U.S.C. § 122(e) should be expanded to permit members of the public to raise enablement concerns with the USPTO throughout the prosecution of a patent application, without requiring the expense or formality of a full IPR proceeding.⁸⁹ In addition to such an amendment, the USPTO may wish to consider reinvigorating and expanding the scope of the Peer to Patent program to seek information regarding enablement, as well as prior art, from the public.

4. Enhance Penalties for Fraud

As noted in Part C.1, above, the principal penalties for inequitable conduct and fraud before the USPTO are rejection of a patent application and unenforceability

⁸³ See, e.g., Ouellette, Peer Review, supra note 31, at 1842 ("it is worth experimenting with a robust peer review system to solicit input from those of extraordinary skill in the field of an application"), Robert P. Merges, As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform, 14 BERKELEY TECH. L.J. 577, 614–15 (1999) ("We need to design a system that better taps into patent validity information, much of which is in private hands.").

⁸⁴ See Naomi Allen et al., Peer to Patent: First Pilot Final Results (2012). See also Ouellette, Peer Review, supra note 31, at 1839–40 (describing program).

⁸⁵ Leahy-Smith America Invents Act, An act to amend title 35, United States Code, to provide for patent reform, Pub. L. 112-29 (Sept. 16, 2011), (codified at 35 U.S.C. § 100).

^{86 35} U.S.C. § 122(e).

^{87 35} U.S.C. § 311.

⁸⁸ These omissions have previously been pointed out, respectively, by Ouellette, *Peer Review*, *supra* note 31, at 1840–41, and Freilich, *Replicability Crisis*, *supra* note 34, at 475.

⁸⁹ Professor Ouellette proposes a more extensive peer review system for patent applications. Ouellette, *Peer Review*, *supra* note 31, at 1842–43. Professor Freilich has questioned the usefulness of expanding the scope of IPR proceedings because these proceedings do not give members of the public effective discovery mechanisms, as do litigation proceedings; though with targeted discovery, she agrees that such proceedings might be more useful. Freilich, *Information Quality*, *supra* note 74, at 2144. Interestingly, an early draft of the Endless Frontier Act, S.1260 (May 2021), would have expanded the grounds under which a person may initiate an *ex parte* reexamination under 35 U.S.C. § 302 to include "credible evidence that any claim was obtained through fraud." *See* Dennis Crouch, *Recordation Requirements and a Certificate of Unenforceability*, PATENTLY-O (May 25, 2021), https://patentlyo.com/patent/2021/05/recordation-requirements-unenforceability.html.

of an issued patent.⁹⁰ Claims under antitrust law and state fraud statutes may also be available.⁹¹ However, there is no explicit fraud remedy, either private or administrative, under the Patent Act. In fact, the America Invents Act of 2011 eliminated virtually all references to an applicant's deceptive intentions that were previously included in the Patent Act.⁹²

In many cases, the remedy of patent unenforceability may be sufficient to deter an applicant from intentionally omitting relevant prior art references—the type of conduct most frequently challenged under the inequitable conduct doctrine.⁹³ However, merely rendering a patent unenforceable when it was procured through fraudulent means seems unduly lenient, particularly when compared to penalties for fraud in other legal contexts.⁹⁴

Accordingly, the penalties for fraud on the USPTO should be expanded in the case of inoperative inventions (i.e., these procured through deception beyond the simple omission of prior art references) to include both criminal penalties and substantial fines. ⁹⁵ Similar penalties, as well as civil punitive damages, should also be available against entities responsible for the post-issuance enforcement of such patents. ⁹⁶ Such enhanced penalties are likely to reduce the chance that applicants will seek patents on inoperative inventions and that they and their assignees (patent assertion entities, in particular) will seek to enforce them.

CONCLUSION

Patents are being issued for non-existent and inoperative inventions. While some of these patents may ultimately be subject to validity challenges, the issuance of such patents nevertheless has harmful effects on the market and innovation, as demonstrated by the ill-timed lawsuit against one of the first COVID-19 test vendors. Rather than waiting for these patents to be challenged in costly litigation, the USPTO should exercise greater efforts to weed out bad patents before they are issued. Over the years, scholars have proposed various approaches to improving the utility and enablement doctrines under patent law. I join them with a few modest proposals specifically directed toward the elimination of patents on inoperative inventions, including (1) increasing USPTO vigilance to detect potentially inoperable inventions, (2) heightening examination requirements, including a certification of enablement, for questionable inventions, (3) enabling greater public input into the examination process, and (4) increasing penalties for fraudulent conduct before the USPTO. The

⁹⁰ See Part C.1, supra.

⁹¹ See supra note 47 and accompanying text.

⁹² Leahy-Smith America Invents Act, Pub. L. 112–29, Sept. 16, 2011, § 20 (deleting seven separate statutory provisions previously dealing with an applicant/patentee's "deceptive intent").

⁹³ Indeed, many observers view this remedy as excessive in the context of prior art omissions. *See, e.g.*, Aventis Pharma S.A. v. Amphastar Pharms., Inc., 525 F.3d 1334, 1349 (Fed. Cir. 2008) (Rader, J., dissenting) (referring to the unenforceability remedy as an "atomic bomb"); Christopher A. Cotropia, *Modernizing Patent Law's Inequitable Conduct Doctrine*, 24 Berkeley Tech. L.J. 723, 725-26 (2009) (describing widespread concern with remedy).

⁹⁴ Penalties for securities fraud include prison sentences and fines of up to \$5 million.

⁹⁵ See Taylor, supra note 49, at 89–90 (proposing awards of attorneys) fees against parties unable to prove allegations of inequitable conduct), Kyle R. Kroll, *Prosecuting Inequitable Conduct*, 102 MINN. L. REV. HEADNOTES 49 (2018) (proposing various mechanisms for criminal prosecution of patent inequitable conduct).

⁹⁶ See Kenneth R. Spector, Remedies for Fraud on the Patent Office, 41 Univ. CHI. L. Rev. 775, 785-87 (1974).

first two proposals could be implemented through USPTO administrative rulemaking, while the latter two would require modest adjustments to the Patent Act. In addition to addressing inoperative inventions, some of the above reforms could also help to alleviate the broader enablement concerns that have been identified by scholars over the past decade. Given the serious consequences that these issues have on markets and innovation, such measures are worth serious consideration by the USPTO and Congress.

How to Improve Trademark Law in China: Adopting Prior Use to Stop the Problem of Trademark Squatting

Junfeng Zhang*

This article analyzes the problem of trademark squatting in China and how to fix that flaw. Trademark squatting involves a trademark squatter's registering of a trademark that is used by someone else, such as in the cases of the trademarks "New Balance" and "Michael Jordan" in China. This article analyzes the present situation of Chinese Trademark Law. Drawing upon the first-to-use system in the United States, this article proposes that China adopt the first-to-use system for Chinese Trademark Law. The article also assesses the risk of adopting the first-use system in China and proposes potential ways to avoid risk.

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INTRODUCTION

When Michael Jordan goes into a store whose name is "乔丹" (which translates to Jordan in Chinese) in China, who can imagine that this store has absolutely no business with Michael Jordan? When I was young, I always thought "乔丹" meant Michael Jordan and that this brand was set up by Michael Jordan. That is one of the problems in Chinese Trademark Law. The answer to the above question is that after Michael Jordan started his own business in China using Air Jordans, he was sued for infringing the trademark of "乔丹" and he lost twice before the case went before the Chinese Supreme People's Court. Even though Michael Jordan ultimately won this case, it was just in part.¹

¹ See Qiaodan (乔丹案) [Michael Jordan], 2015 High People's Ct. Gaz. 1373 (High People's Ct. 2015) (China). See also Qiaodan (乔丹案) [Michael Jordan], 2016 High People's Ct. Gaz. 3085 (High People's Ct. 2016) (China).

How does this kind of <u>unreasonable</u> case happen so many times in China? It is due to "The Registration System" in Chapter III of Chinese Trademark Law, which establishes who may register a trademark, who will own the trademark, and sets out that China is a first-to-file system.² The Registration System in Chinese Trademark Law creates serious problems such as trademark squatting and infringing on foreign trademarks. These days, China is working on solving these problems. However, when the Trademark Office grants a trademark to someone who is virtually unrelated to it, it deprives someone related to this trademark the rights to it. This is the core problem. China promulgated the 4th Revision of Trademark Law which became effective on November 1, 2019.³ However, what is amended is not the core problem, but something based on the problem. Indeed, it is not enough, because it just governs the symptoms and not the base issue. The core problem is the first registration principle in Chinese Trademark Law, which means that if there is no change, then the core problem and associated problems will still exist.

With respect to the United States trademark system, these problems do not occur. This article analyzes the problems in the Chinese trademark system and the effect of the 4th Revision of Trademark Law. This article also analyzes the U.S. system of trademark law, mainly the Lanham Act, and how China can learn from the advantages from the U.S. trademark system to improve its own trademark system. Furthermore, it looks at how China can find a way to put these advantages into practice.

Part I provides an overall analysis of the problems in Chinese Trademark Law and compares those problems with the status quo in the United States. Part I also focuses on the origin of those problems by presenting different situations that arose from that origin. Once a good method to improve the base problem is found, every problem will be able to remedy itself. China has recognized these problems, and put efforts in place to solve them, but as mentioned above, that is not enough. Following the above analysis is an overview of the 4th Revision of Trademark Law. Afterwards, the article looks at the United States trademark laws. Part II then provides the framework of what can be done to improve the trademark law system in China and outlines some ways for further improvement of the basis of Chinese Trademark Law. Finally, Part III then turns an eye to potential criticisms to my proposals and why they may not be tenable.

I. PROBLEMS IN CHINA'S TRADEMARK LAW AND HOW THE U.S. DEALS WITH THESE PROBLEMS

China is a developing country with a rapidly growing economy, and many laws lag behind the current economy, especially Trademark Law.⁴ Many problems, such as

² See Zhonghua Renmin Gongheguo Shangbiao Fa (中华人民共和国商标法) [Trademark Law of the People's Republic of China] (promulgated by the Standing Comm. Nat'l People's Cong., Apr. 23, 2019, effective Nov. 1, 2019) 2019 STANDING COMM. NAT'L PEOPLE'S CONG. GAZ. 4 (China) [hereinafter PRC Trademark Law of 2019].

³ See Hai De Qingtian, Introduction to Trademark Law of the People's Republic of China, BAIDU (Apr. 25, 2019), https://tinyurl.com/yckznfh7.

⁴ See Jessica Martin, Two Steps Forward, One Step Back: A Need for China to Further Amend Its 2013 Trademark Law in Order to Prevent Trademark Squatting, 42 Brook, J. INT'L L. 993 (2018).

the serious issue of trademark squatting, cause too many troubles for individuals and corporations not only in China, but also in other countries who want to enter into the Chinese market.⁵ The appearance of trademark squatting gives rise to obstacles that make it hard for foreign individuals and corporations to own the legal rights to their trademarks.⁶ What's more, some individuals and corporations are malicious and extend the review time of other applications to achieve an ulterior purpose. Without a doubt, this practice costs others more money and time.⁷ In the U.S., there are no such problems due to what is known as the "prior use principle." The U.S. uses the prior use principle to deal with the different situations that arise with a growing economy, and as a result, foreign individuals' and corporations' trademarks are still better protected in the U.S. than in China.⁸

Part I explains the problems arising from the principles of prior registration and the lack of protection for foreign trademarks according to Chinese Trademark Law. The largest problem arising from the first-to-file system is trademark squatting. Even though the 4th Revision of Trademark Law makes some progress with respect to addressing this issue, the principle of prior registration has not changed and as a result, various problems still exist. We will also discuss the Lanham Act to understand what the U.S. does with these problems. The first section of Part I provides a brief overview of the problems that plague trademark law in China, the next section of Part I covers the awkward situation of foreign trademarks in China, and the final section of Part I discusses why the 4th Revision of Trademark Law is not that useful.

A. Problems with the Status Quo

This section provides a brief overview of the problems associated with trademark law in China and presents the status quo of Chinese Trademark Law. This status quo is also illustrated through practical records, procedural issues, and cases to form an overall impression. All of these materials offer procedural and practical problems that need more flexible and thorough solutions.

1. Trademark Squatting - The Principles of Prior Registration

A trademark squatter is a person or company that acquires trademarks, aiming not to use the acquired trademarks to help and demonstrate goods or services in the market, but to put forward trademark infringement claims against other persons or companies that do use them to market their products or services. Usually, squatters extort the real trademark user into giving them money before filing trademark infringement claims or directly selling the trademark to the real trademark user.

⁵ *Id.* at 994.

⁶ Id.

⁷ See Hugang & Zhaoling, Judicial Application and Judgment of the Principle of Comprehensive Review in the Administrative Litigation of Trademark Refusal, CCPIT PATENT AND TRADEMARK LAW OFFICE (Mar. 22, 2019), https://www.ccpit-patent.com.cn/zh-hans/node/5805.

⁸ See Lanham Act, 15 U.S.C. §§ 1051 – 1056 (2005).

⁹ Martin, *supra* note 4, at 1994-95.

¹⁰ Id. at 1003.

Squatters maliciously use this method to profit from others, causing the subordinate problem.¹¹ Not every trademark is very valuable and the squatters apply for trademarks in a wide range, usually numbering in the thousands. Once approved, these squatters will hoard these trademarks.¹² When one or some of these trademarks become famous or valuable, the squatter will appear and extort the individual or corporation who really made the trademark famous and valuable.¹³ After such squatters hoard large amounts of trademarks, it is difficult for others to come up with and apply for new trademarks, so these potential trademark applicants usually choose to buy one owned by squatters.¹⁴ Some individuals and corporations realize that this method is profitable and hence they flood in and hoard trademarks to sell.¹⁵ This is a vicious cycle.¹⁶

The principle of applying for prior registration refers to when two or more applicants apply for the same or similar trademarks on the same commodity or similar goods.¹⁷ The Trademark Office accepts the first application for trademark registration, and any subsequent trademark registration application is rejected.¹⁸ The application is first determined based on the date of the applicant's application for trademark registration.¹⁹ The date of application for trademark registration shall be the date on which the Trademark Office receives the application.²⁰ Therefore, the date on which the application is received by the Trademark Office is used as the criterion for determining the registration of the application, which means whoever applies first owns the trademark first.²¹ This is the core problem.

2. The Awkward Situation of Foreign Trademarks in China

The problem of trademark squatting is pervasive in China.²² If the real user of a trademark in China cannot be well protected, then how about foreign trademark users?²³ The situation of a foreign trademark user is just the same as it is for individuals and corporations in China.²⁴ Foreign trademark users can either only buy a Chinese trademark that is most related to and has the same meaning as their English trademark or choose a Chinese trademark whose pronunciation is the same as the most closely related Chinese trademark to the original English trademark.²⁵ The second approach is better, but has negative consequences because people in

¹¹ See Sunny Chang, Combating Trademark Squatting in China: New Development in Chinese Trademark Law and Suggestions for the Future, 34 Nw. J. INT'L L. & Bus. 337 (2014).

¹² See id.

¹³ See id.

¹⁴ See id.

 $^{^{15} \}textit{See Yuan Bo}, \textit{Talk About Trademark "Hoarding"}, IPR \textit{DAILY (Jan. 30, 2018)}, \text{https://zhuanlan.zhihu.com/p/33461781}.$

¹⁶ See id.

¹⁷ See PRC Trademark Law of 2019, supra note 2.

¹⁸ See id.

¹⁹ See id.

²⁰ See id.

²¹ See Yuanbo, What are the Prior Principle of Trademark Registration Application and Prior Use?, Chenhuo Trademark Network Service Platform (Jan. 16, 2019), http://www.chenhuoshangbiao.com/a/107.html.

²² Chang, supra note 11, at 339.

²³ See Michele Ferrante, Strategies to Avoid Risks Related to Trademark Squatting in China, 107 Trademark Rep. 726 (2017).

²⁴ See id.

²⁵ See id.

China regard the closely related Chinese trademark as the real product or service, not the Chinese trademark that has the same pronunciation.²⁶

For example, the cosmetic brand Kiehl's is a famous brand. When Kiehl's entered into the Chinese market, the most related Chinese trademark to their English name was "契尔氏", and the pronunciation was "Qi er shi" in Chinese. ²⁷ Kiehl's used "契尔氏" for a while, but received information that "契尔氏" had been registered before by others in China and that Kiehl's could not use it. ²⁸ Hence, Kiehl's had to choose another trademark which was not already registered and eventually changed their trademark application to "科颜氏" – whose pronunciation was "Ke yan shi", which is much different than the above most related Chinese trademark of "Qi er shi". ²⁹

A. NEW BALANCE LOST A LITIGATION AFTER USING ITS CHINESE TRADEMARK "XINBAILUN"

New Balance v. Zhou LeLun is one of the most famous cases that demonstrates what brand owners face when trying to enter the Chinese market. The famous American sportswear company New Balance had used the character combination "Xin Bai Lun" for years as the Chinese transliteration of "NEW BALANCE". The company, however, had never registered these characters as a trademark, but had instead registered a different version. In 1996, a Chinese company registered the trademark BAI LUN, which was assigned to Mr. Zhou Le Lun in 2004, who then used the trademark to establish a shoe and apparel factory that sold to local Chinese stores. Later in 2004, Zhou applied for the trademark XIN (meaning "new") BAI LUN, the Chinese mark New Balance had been using as its Chinese trademark. Upon learning that Zhou's application had been approved, New Balance filed an opposition proceeding to prevent the registration of his XIN BAI LUN trademark.

New Balance's application was rejected, but they still used the transliteration trademark "Xin Bai Lun" to advertise and promote their goods. ³⁵ Zhou then sued New Balance's Chinese subsidiary, Xinbailun (China) Co. Ltd., in the Guangzhou People's Intermediary Court, claiming trademark infringement. ³⁶ Zhou argued he registered the trademark XIN BAI LUN and held the exclusive rights to it, and Xinbailun (China) Co. Ltd. used the trademark without his authorization. ³⁷ Xinbailun (China) Co. Ltd. responded that XIN BAI LUN was just a transliteration of New Balance, was known by consumers because most consumers regard XIN BAI LUN as a symbol of New Balance, and that Zhou maliciously registered Xin Bai Lun. ³⁸

²⁶ See id.

²⁷ See Lida, Foreign Brands Enter Chinese Market, Finding Trademarks Registered, China Fighting Infringement and Counterfeiting Work Network (July 14, 2016), http://www.ipraction.gov.cn/article/xwfb/mtgd/202004/161578.html.

²⁸ See id.

²⁹ See id.

 $^{^{30}}$ Gaowo, The "New Bailun" Trademark Dispute was Finally Settled, Beijing Gaowo Intellectual Property (June 25, 2016), https://www.sohu.com/a/85985358_361113.

³¹ Id.

³² *Id*.

³³ Id.

³⁴ Xinbailun (China) Co Ltd v. Lelun Zhou (周乐伦), Guangzhou Intermediate People's Court, Guangdong Province (2013) No. 547.

³⁵ Id.

³⁶ *Id*.

³⁷ *Id*.

³⁸ See Ferrante, supra note 23, at 738; see generally Ferrante, supra note 23, at 740.

On April 24, 2015, Zhou won the case and the Guangzhou Court ordered New Balance to pay Zhou RMB 98 million (about US \$16 million), which, at the time of the decision, was the highest amount ever awarded by an intellectual property court in China; once someone owns the Chinese version trademark of a foreign company, the true owner is precluded from using that Chinese version trademark in China.³⁹

B. MICHAEL JORDAN CANNOT BE "乔丹" IN CHINA

乔丹's Chinese pronunciation is "Qiaodan", which is the Chinese version of Michael Jordan. In 2012, Michael Jordan filed a lawsuit against Qiaodan Sports Co. Ltd.⁴⁰ In the lawsuit, Jordan tried to prove Qiaodan Sports was misleading consumers by using the transliteration of Michael Jordan as a trademark and company's name.⁴¹ Jordan's attorneys argued that, although Michael Jordan did not own the trademark QIAO DAN, Chinese fans have called him that name in China since the beginning of his basketball career in the early 1980s, and therefore "Qiao Dan" had become Michael Jordan's Chinese name.⁴² According to Article 2 of the Torts Liability Law of the People's Republic of China, individuals enjoy rights to their personal name and the misuse of an individual's name is prohibited.⁴³

However, in a judgment rendered in 2015, the court rejected Michael Jordan's arguments, and pointed out that "Qiao Dan" was not the only way to transliterate or translate Michael Jordan's name, which is also a common Western surname.⁴⁴ One problem about this decision is that the court ignored the effect on Michael Jordan's reputation, thus ruling that Qiaodan Sports would be free to use the meaning of Michael Jordan.⁴⁵

In April 2015, Michael Jordan's legal team filed for a retrial at the Beijing Municipal High People's Court, which again ruled in favor of Qiaodan Sports in June 2015. 46 Michael Jordan then appealed the case to The Supreme People's Court of China. 47 On December 8, 2016, the Supreme People's Court withdrew the rights of Qiaodan Sports to use Michael Jordan's family name written in Chinese characters. 48 The Court still allowed Qiaodan's use of related trademarks registered in Pinyin, thus partially ruling against Michael Jordan. 49 This however is still a loss to Michael Jordan, even though this decision was rendered partially in his favor. 50

³⁹ See id.

⁴⁰ Qiaodan Sports Co. Ltd v. Michael Jordan, Fujian Quanzhou Intermediate People's Court, Fujian Province (2013) No. 488.

⁴¹ See Ferrante, supra note 23, at 740.

⁴² Michael Jeffery Jordan v. Qiaodan Sports Co. Ltd, Supreme People's Court of the People's Republic of China, China (2018) No. 32.

⁴³ Tort Liability Law of the People's Republic of China (promulgated by the Standing Comm. Nat'l People's Cong., Dec. 26, 2009, effective July 1, 2010) *available at* http://www.wipo.int/wipolex/en/details.jsp?id=6596 (last visited Nov. 17, 2021).

⁴⁴ Ferrante, supra note 23, at 740.

⁴⁵ See id.

⁴⁶ See Secretary of the General Office of the People's Court, Notice of the Issuance of the 22nd Batch of Guiding Cases, SUPREME PEOPLE'S COURT (Dec. 24, 2019), http://www.gzcourt.gov.cn/ck487/ck335/ck488/2020/04/08095549525.html.
⁴⁷ Id.

⁴⁸ Michael Jordan Wins Rights to His Chinese Name in Court, Bloomberg News (Dec. 7, 2016), https://www.bloomberg.com/news/articles/2016-12-08/michael-jordan-wins-rights-to-his-chinese-name-in-china-court-iwftaroy.

⁵⁰ Id.

B. What Will Happen After China Promulgates the 4th Revision of Trademark Law and What Problems Still Exist?

On April 23, 2019, the Tenth Meeting of the Standing Committee of the National People's Congress decided to amend the Trademark Law in order to implement the decision-making arrangements of the Chinese Communist Party, adapt to the economic and social development situation, strengthen intellectual property protection, further optimize the business environment, solve outstanding problems in practice, effectively curb malicious registration of trademarks, and increase the protection of trademark exclusive rights.⁵¹ This amendment involves a total of six articles, implemented on November 1, 2019. ⁵² The State Intellectual Property Office of P.R. China will study, draft, and improve the supporting laws, regulations, and departmental regulations as soon as possible in order to fully guarantee the smooth implementation of the revised contents of the Trademark Law.⁵³ However, even after the progress made due to the implementation of the 4th Revision of Trademark Law, various problems still exist.⁵⁴

Regulating Malicious Registration - Not Enough, Still Trademark Squatting

For malicious applications, the current legal provisions are relatively unclear. In recent years, even though the crackdown has been very strong, such behavior has not been effectively curbed. Meanwhile, in the regulation of malicious registration behavior, there are only principled provisions in the law, and no direct, clear and operative clauses, which leads to insufficient efforts in actual operation.⁵⁵ The aim of this revision is to stop malicious application registrations from the start, so that the trademark application registration process makes a return to its original goal: the purpose of use.⁵⁶

The "purpose of use" added in Article 4 of the 4th Revision of Trademark Law is the cornerstone for all legal norms to curb applications for registration of malicious trademarks.⁵⁷ Because the current laws do not set the "purpose of use" as a requirement for a registered trademark application, they do not examine whether the applicant has a "purpose of use" when applying to register for a trademark. The requirement of the "purpose of use" only applies in the case of objection, withdrawal, and invalidation procedures where the State Intellectual Property Office will check whether the person or registered trademark owner has a true "purpose of use".⁵⁸ According to the 4th Revision of Trademark Law, applicants should be

⁵¹ Interpretation of Issues Related to the Revision of Trademark Law, State Intellectual Property Office of P.R. China (May 9, 2019), http://www.gov.cn/zhengce/2019-05/09/content_5390029.htm.

⁵² *Id*.

⁵³ *Id*.

⁵⁴ *Id*.

⁵⁵ Id.

⁵⁶ Id.

⁵⁷ See PRC Trademark Law of 2019, supra note 2.

⁵⁸ See id.

required to submit evidence of "actual use" or a "honest use intention" at the time of registration of the trademark application.⁵⁹

Without the principle of prior registration in Chinese Trademark Law, the 4th Revision of Trademark Law makes more sense. 60 However, even though the provision has been revised, the principle has still not changed. 61 That is, if someone wants to maliciously apply for a trademark, he can still do so and will only have their mark be invalidated if the squatter cannot show he is using or used this related trademark. This is easy to achieve. 62 In China, the cost of creating a company is low and someone who wants to maliciously apply for a trademark can create several companies and incorporate this trademark into the business. 63 The applicant can prove he is using or used this trademark and that it meets the use requirements under the 4th Revision of Trademark Law. 64

There are still no clear and concrete provisions to regulate this cheating.⁶⁵ For example, the true owner usually uses the trademark prior to the malicious applicant, but no provisions deal with this conflict.⁶⁶ A true owner can claim that a malicious applicant's trademark is invalid, but this approach does not work because China's State Intellectual Property Office only focuses on whether the malicious applicant is using or used the trademark, ignoring the time period of use.⁶⁷ What's more, if someone maliciously applies for a trademark first and uses it pursuant to the minimum requirements of the 4th Revision of Trademark Law, another person may use it later and make the trademark famous. This current situation exists now.⁶⁸

2. Obligation of Trademark Agency - Unscrupulous Agencies Still Exist

At present, Chinese trademark agencies are not well-balanced, and there exist some unscrupulous agencies that assist or even directly engage in the process of filing for malicious applications as well as the hoarding of industrial chaos.⁶⁹ Some agencies set up affiliated companies to apply for trademarks, resell profits, or use their professional knowledge to maliciously squat on customers' trademarks and demand high transfer fees, which has caused adverse effects in society.⁷⁰ The 4th Revision of Trademark Law incorporates malicious registration applications into the case where the trademark agency is not allowed to accept the commission and the punishment for the trademark agency.⁷¹ This revision also serves as a reason for the agency to apply for the registered trademark, to file an objection and invalidation procedure, which

⁵⁹ Interpretation of Issues Related to the Revision of Trademark Law, *supra* note 51.

⁶⁰ See Zhichan Li, A Little Practical Suggestion and Reflections in the Fourth Revision of the Trademark Law (Apr. 24, 2019), http://dy.163.com/v2/article/detail/EDIAEOJ4051187VR.html.

⁶¹ See id.

⁶² See id.

⁶³ See id. ⁶⁴ See id.

⁶⁵ See id.

⁶⁶ See id.

⁶⁷ *Id*.

⁶⁸ See id.

⁶⁹ Interpretation of Issues Related to the Revision of Trademark Law, *supra* note 51.

⁷⁰ *Id*.

⁷¹ *Id*.

is conducive to standardizing the agency's behavior,⁷² and to purify the trademark agency market order and encourage public supervision.⁷³ The forthcoming "Several Provisions on Regulating the Registration of Trademarks" will clarify the means of supervision of agencies that use credit files, industry self-discipline measures, and the suspension of acceptance of trademark agency business.⁷⁴

This is an external measure to regulate malicious applications, however, and the problem is that after the 4th Revision of Trademark Law, trademark agencies are not affected. People who run a trademark agency are for profit, and if a malicious applicant can still work, they can still earn profits.⁷⁵ The 4th Revision of Trademark Law adds obligations that a trademark agency must follow, but breaching these obligations only leads to monetary damages. Even though there are some provisions about criminal penalties, they are not specific enough. Thus, trademark agencies do not take stopping malicious applicants seriously because they do not need to care about monetary punishment when malicious trademark applicants can always give them more money.⁷⁶

3. Increase the Money of Infringement - True Owner Still Needs to Spend Too Much Time and Money

According to the existing laws, the amount of damages for infringement of intellectual property rights is calculated by the plaintiff's loss, the defendant's benefit, reasonable multiples of license fees, and statutory compensation.⁷⁷ All four calculation methods require the plaintiff to submit corresponding evidence.⁷⁸ However, the reality is that the evidence that the plaintiff can submit to prove their loss is extremely limited.⁷⁹ Therefore, it may be difficult for the defendant to bear the compensation amount to produce the effect of "killing one and affect one hundred".80 Under this circumstance, the 4th Revision of Trademark Law will raise the punitive damages recovery amount to a maximum of five times the normal level.81 Thus, with these provisions, the Revision should be able to play a more powerful "deterrent" role. As a result, the illegal interests of infringers are deprived, leading the illegal activities of these infringers to get extremely etched out.⁸² It is possible to realize the full extent of such illegal costs by comprehensively exerting the effect of increasing the amount of damages, rationally configuring the burden of proof, rationally applying the burden of proof, using evidence to impede the system, and giving full play to bans such as pre-trial injunctions and injunctions.⁸³

⁷² *Id*.

⁷³ *Id*.

⁷⁴ Id.

⁷⁵ Huang Shuangwu, Containing Malicious Registered Trademarks Significantly Increases Illegal Costs, China Intellectual Property Information Network (May 16, 2019), http://www.iprchn.com/cipnews/news_content.aspx?newsId=116074.

⁷⁶ See id.

⁷⁷ PRC Trademark Law of 2019, supra note 2.

⁷⁸ *Id*.

⁷⁹ See id.

⁸⁰ See id.

⁸¹ Coo id

⁸² Huang Shuangwu, supra note 75.

⁸³ Id.

Increasing the monetary fines for infringement still only addresses monetary concerns, and does not cause adverse impacts to business organizations or constitute a crime. Someone may stop trademark squatting because they are afraid of high punishment, but others who are not afraid may profit more as others quit. The theory behind increasing the monetary penalty for infringement is to deter abusing trademarks, but instead, this penalty increase actually encourages trademark abuse due to only focusing on money. According to the 4th Revision of Trademark Law, although the current opposition system has reduced the number of malicious objections, it has also shortened the time for the malicious registration of trademarks. Therefore, the current provisions of the trademark opposition procedure provide some level of convenience for malicious trademark applications. The trial period of trademark oppositions is too long, and the status of objectionable trademarks is unstable, which is not conducive to the use of trademarks by dissidents and not beneficial to the rights of dissidents.

Prior to the 2nd Revision of Trademark Law in 2001, the trademark opposition procedure was reviewed by the Trademark Office and the Trademark Review and Adjudication Board at the end of two trials.⁸⁹ In 2013, the Trademark Law was amended for the third time.⁹⁰ The judgment of the Trademark Review and Adjudication Board was then reviewed by the judicial authorities.⁹¹ The trademark opposition procedure was thus changed into four levels of review: (1) the Trademark Office, (2) the Trademark Review and Adjudication Board, (3) the first instance trial (4) and the second instance trial.⁹² As a result, the resolution time for the whole procedure can be as short as three years or as long as five years or more.⁹³ This situation was not changed in the 3rd Revision of Trademark Law in 2013; for a maliciously registered trademark application, if it fails to prevent the trademark application from being approved for registration at the trademark opposition stage, then for at least 2-3 years the trademark acts as an approved registered trademark and can be used by the objector without claiming to be infringed, and any opponent cannot prevent the use of the objected-to trademark within 2-3 years.⁹⁴

C. How Does the U.S. Lanham Act Work?

The United States was one of the first countries in the world to create a trademark legal system. ⁹⁵ In 1870, the first trademark law of the United States was born. ⁹⁶ In 1946, the United States promulgated the Lanham Act, which was subsequently

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84 See id.
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⁸⁵ See id.

⁸⁶ Zhichan Li, supra note 60.

⁸⁷ Id

⁸⁸ Id.

⁸⁹ Id.

Id.
 Id.

⁹² *Id*.

⁹³ Id.

⁹⁴ Id.

⁹⁵ Bian Xiao, Features of the U.S. Trademark System, Legal Express (May 30, 2019), https://www.lawtime.cn/info/zscq/shangbiaoquan/2010101245248.html.

⁹⁶ See id.

amended in 1988.97 Problems in China are mainly attributed to the principle of prior registration. Meanwhile, in the Lanham Act, trademark registration is based on prior use.98

1. Trademark Registration for Prior Use

The U.S. trademark registration system implements the principle of "prior use", that is, the first user of the trademark is protected by law.⁹⁹ The Lanham Act requires that the actual use of trade and trademarks must be in place before the legal protection of trademarks can be obtained. 100 Although the United States introduced a registration system, "prior use" is still a prerequisite before applying for registration.¹⁰¹ In 1988, the U.S. Trademark Law was amended to allow applicants to apply for trademarks based on "intentional use" and loosened the principle of prior use. 102 In fact, any application for registration based on "intentional use" as stipulated in the 1988 amendment still had a strong "use" color. 103 Applicants can only submit the true use certificate to the Trademark Office after they have been used for 36 months. 104 After that, then it is possible to obtain a trademark. 105

There are several parts in the Lanham Act (15 U.S.C.), but what the section most relevant for this paper is subchapter I: The Principal Register. Namely, two sections from this subchapter are pertinent to this article: (1) Requirement of prior use and verification of prior use; and (2) Requirement of Bona Fide intention. Because trademark squatting makes use of the prior registration with malevolence, there is a strong need to adopt the prior use system. It is also worth noting the significance of the Bona Fide intention and the requirement of a statement for verification, since prior use alone is not sufficient.

Looking at situations in the U.S., there is no trademark squatting because of Section 1051 of the U.S. Code. This means that Section 1051 demonstrates a high effectiveness value when facing trademark squatting or similar malicious actions. 106

Section 1051 provides that the owner of a trademark used in commerce shall sign a statement verified by applicant that specifies "the mark is in use in commerce" and "to the best of the verifier's knowledge and belief, no other person has the right to use such mark in commerce either in the identical form thereof or in such near resemblance thereto as to be likely, when used on or in connection with the goods of such other person, to cause confusion, or to cause mistake, or to deceive". 107

⁹⁷ See id.

⁹⁹ How to Satisfy the Requirements for Clarifying, Substituting, or Adding a Filing Basis, or Applying for More Than One Filing Basis, United States Patent and Trademark Office (Apr. 12, 2016), https://www.uspto.gov/trademarksapplication-process/basis.

⁰⁰ Lanham Act, 15 U.S.C. §§ 1051 - 1056 (2005).

¹⁰² *Id*.

¹⁰³ *Id*.

¹⁰⁵ United States Patent and Trademark Office, supra note 99.

¹⁰⁶ Lanham Act, 15 U.S.C. §§ 1051 - 1056 (2005).

¹⁰⁷ Lanham Act, 15 U.S.C. §§ 1051 - 1056 (2005).

Multi-Level Judicial System for IP Litigation–Money and Crime

A multi-level judicial system is the most important means of protection for intellectual property. Under normal circumstances, the U.S. Federal District Court is the court of first instance jurisdiction for intellectual property infringement cases. 108 There are two types of disputes: (1) patent and trademark trial case disputes, which are generally heard in federal U.S. district courts and (2) appeals, which are heard by the U.S. Court of Appeals for the Federal Circuit, or Federal Circuit. 109 The involvement of the Federal Circuit reduced the conflict of jurisdiction at the trial level and made the patent system more stable; other disputes, such as state registered trademarks and trademark infringement cases obtained under customary law, abuse of trade secrets, unfair competition, etc. can also be tried by state trial courts in addition to federal trial district courts. 110 If the plaintiff or defendant refuses to accept the judgment of the state or federal district court, he or she may appeal to the Federal Circuit, and the judgment of the Federal Circuit is final unless any of the parties appeal to the U.S. Supreme Court.¹¹¹ In addition to judicial protections, the United States also uses administrative procedures and arbitration systems to protect intellectual property rights. 112

According to the principle of prior use, a trademark can be registered, and applicants can also choose not to register their trademarks. ¹¹³ Only if the trademark is kept in use can it also obtain legal protection. ¹¹⁴ During an infringement lawsuit, the plaintiff must provide evidence of prior use and trademark registration to show that they own the rights to the trademark. ¹¹⁵ After a trademark has been registered for five years, other users of that same trademark will likely not succeed in a dispute. ¹¹⁶ The registered trademark owner has the right to assert their rights when their mark is infringed, and ask for economic compensation. ¹¹⁷ If a company or an individual is not registered but they are a prior user, that prior user of the trademark can only ask the court to stop the use of the trademark infringement, and cannot obtain corresponding economic compensation. ¹¹⁸

The protection of registered trademarks in the United States is achieved through the assessment of heavy penalties for counterfeiting. ¹¹⁹ For personal counterfeiters, a first-time offender will be fined \$250,000 or sentenced to five years of imprisonment, and then subsequent offenses yield a fine of \$1 million or a prison sentence of 15

¹⁰⁸ US Trademark Law: Characteristics of the US Trademark System, World Trademark (Feb. 1, 2019), http://www.21etm.com/events/2019-02-01/11376.html.

¹⁰⁹ See id.

¹¹⁰ See id.

¹¹¹ See id.

¹¹² See id.

¹¹³ Jacqui Pryor, What Is a Trademark and How Do You Register One?, QUICK OFF THE MARK (May 30, 2017), http://www.quickoffthemark.com.au/blog/trademark-register-one/.

¹¹⁴ Lanham Act, 15 U.S.C. §§ 1051 – 1056 (2005).

¹¹⁵ *Id*.

¹¹⁶ *Id*.

¹¹⁷ *Id*.

¹¹⁸ Id.

¹¹⁹ World Trademark, supra note 108.

years or less. 120 The trademark laws also specify the content of unfair competition litigation and treats the infringement of registered trademarks as part of unfair competition. 121

3. The Importance of the American Intellectual Property Lawyer Association

The way to resolve disputes in the United States is through court trials. Trial times are long, and the agency as well as litigation fees paid by the parties in an average trial are relatively large. 122 Therefore, most parties to such a suit hope to resolve the dispute directly through consultations between lawyers. 123 In fact, many cases have been resolved in this way, which has become a major feature of the US judicial system's handling of intellectual property disputes. 124 Lawyers engaged as intellectual property attorneys have their own organization—the American Intellectual Property Lawyers Association. 125 It is a community organization of intellectual property lawyers in the United States, and is also responsible for organizing members to study new situations and new problems in the emergence of intellectual property rights, coordinate the relationship between members and various parties, and organize members to carry out exchanges and cooperation with others. 126 It has additionally played an active role in helping lawyers successfully complete various mediation and litigation tasks. 127

II. PROPOSALS FOR THE 4^{TH} REVISION OF TRADEMARK LAW: CHANGING THE METHOD TO APPLY CHINESE TRADEMARK LAW

To solve the most serious problem in Chinese Trademark Law, a highly effective solution exists. Everything according to Chinese Trademark Law demonstrates the need to change the trademark application process. Many provisions are also established pursuant to the first-to-file registration provision. It is obvious that trademark squatters will keep flooding in if the first-to-file registration system still exists. As analyzed above, someone who may want to maliciously apply for a trademark can still do so and will not have their mark invalidated under the first-to-file registration system. Harmonizing the Chinese trademark registration system with the concept of prior use in Chinese Trademark Law is necessary and it will

¹²⁰ Id.

¹²¹ Id.

¹²² See also Wang Desheng, U.S. Intellectual Property Protection System and Supervision (July 30, 2012), http://www.istis.sh.cn/list/list.aspx?id=7478.

¹²³ *Id*.

¹²⁴ *Id*.

¹²⁵ *Id*.

¹²⁶ *Id*.
¹²⁷ *Id*.

¹²⁸ See Part I.

make trademark law clearer. The most important point is that this approach changes the first-to-file system thoroughly, to make it more helpful and efficient. The first part of this proposal suggests a replacement of the first-to-file system with the doctrine of prior use, and also details a draft provision. The second part of this proposal discusses the feasibility and coherence of the suggested draft provision with respect to China and the U.S. The final part of this proposal discusses some auxiliary measures to support the prior use system.

A. Introducing the Prior Use System of Applying for Trademark Registration from the U.S. Legal System

Changing the way that a trademark becomes registered in China would mean making a significant change to Chinese trademark law, similar to changing the heart of a human being. To ensure one's heart is compatible with one's body, the heart must first be above all functional. Then the process in which to install the new heart shall run smoothly, and the process in which to support the healthy function of the heart will also operate effectively. Hence, this new method should be modified to meet the requirements and work well enough to provide enough energy and revitalization to the overall body of trademark law.

1. Draft of "The Prior Use" Provision

Section 22, Chapter II in Chinese Trademark Law discusses the current process of applying for a trademark, which presently states that whoever applies first will own the trademark. This is the first-to-file registration provision. ¹²⁹ Changing this provision to follow prior use rules is the solution. To make the concept of prior use from the U.S. legal system work well in Chinese Trademark Law, it is necessary to add legal certainty to the proposed provision. After introducing the U.S. legal concept of prior use, the below draft of § 22 draws the core of the Lanham Act out and extracts it, and then applies those principles to Chinese Trademark Law in a compatible fashion by preserving essential parts from the original provision.

Here is the original provision:

§ 22, Chapter II

- (1) An applicant for trademark registration shall fill in the product category and product name according to the prescribed commodity classification table and submit an application for registration.
- (2) Applicants for trademark registration can apply for registration of the same trademark for multiple categories of goods in one application.
- (3) Relevant documents such as trademark registration applications may be submitted in writing or in a data message.

¹²⁹ PRC Trademark Law of 2019, supra note 2.

And here is the revised provision proposed by this paper:

§ 22, Chapter II

- (1) An applicant for trademark registration shall fill in the product category and product name according to the prescribed commodity classification table and submit an application for registration.
- (2) Applicants for trademark registration can apply for registration of the same trademark for multiple categories of goods in one application.
- (3) Relevant documents such as trademark registration applications may be submitted in writing or in a data message.
- (4) Applicant shall submit an application for registration with a written statement that verifies use of the product name. Using the product name means that applicant shall verify that he or she runs a real business with the product name in commerce.
- (5) Applicant shall apply for a trademark with a Bona Fide intention to use the trademark applied for. Whenever trademark owners are found guilty of malicious registration or false registration for selling trademarks and to earn profits, the trademark will be revoked if a related party requests its revocation.
- (6) After 1 year from applicant's usage of the product name, if applicant does not apply for a trademark for the product name, this product name will not be in protection and others can apply for the trademark regardless of whether they are using the product name or not. For applicants from other countries, the date counts from the day when they enter the Chinese market. This provision also applies to translation of foreign trademarks in Chinese and other languages.

The revised § 22, Chapter II maintains Clause (1), (2), (3) as they are all procedural provisions describing how to register a trademark and are hence essential. The previous Section 22, Chapter II does not state that he who applies is also who owns a trademark. Hence, Clause (4) adds the prior use and standards for proof of use to make § 22 more consummate than before. Also, the intention element goes into effect by regulating former actions without *Bona Fide* intention. Last but not least, the grace period that runs after the day an applicant uses a product name aims to encourage and push potential applicants to apply for a trademark.

2. Feasibility and Coherence Between China and the U.S.

The above draft provision is proposed to fit the structure of Chinese Trademark Law, pursuant to the present structure of Chinese Trademark Law, and elements from 15 U.S.C. 1051 are adjusted and modified to be compatible with Chinese Trademark Law provisions as well. Even though China adopts a Civil Law System while the U.S. adopts a Common Law System, the principle of the trademark law system in both countries protects exclusive trademark rights. This is the core and universal similarity that runs through all trademark law, regardless of the country. Protecting the exclusive rights of a trademark is the direct purpose of all trademark

¹³⁰ See Lanham Act, 15 U.S.C. § 1051 (2005).

¹³¹ Mi Mengmeng, *Introduction to Trademark Legal System*, BAIDU (Dec. 5, 2015), https://baike.baidu.com/item/% E5%95%86%E6%A0%87%E6%B3%95%E5%BE%8B%E5%88%B6%E5%BA%A6.

laws. 132 Only by determining and recognizing the exclusive rights of a trademark can the order of commodity circulation be steady and the interests of consumers be guaranteed. 133 In the gross aggregate, the purpose of trademark law as applied by both China and the U.S. has coherence. This means it is feasible to introduce provisions from one country to another if their purpose is the same. On the other hand, as man-made law, statutory provisions serve a special purpose. So long as the purpose of these provisions is consistent with one another, man-made law from other countries can go into the same effect with modification and adjustment according to the specific requirements of China. 134

3. Assistant Measures to Implement "Prior Use"

Solving this above-described problem is like using rocks to fill a bottle. After you put a big rock in the bottle, you need more smaller rocks to fully fill it. This paper proposes a big rock with respect to Chinese Trademark Law, but this rock is not enough pursuant to the requirements of China. Assistant measures for introducing prior use are small rocks that can further improve China's trademark law system.

A. REASONABLY RESTRICT THE TRANSFER OF THE APPLICANT'S REGISTERED TRADEMARK

One reason why trademark squatting is so serious is that it is profitable and the trademark squatters will only release the marks after they receive a payment from the real owners. ¹³⁵ A trademark is like a daily commodity: it can be bought and sold any time at any price. With the prior trademark registration system, people can apply for a trademark that is used by others and sell it, which is a profitable practice that is performed frequently in China. ¹³⁶ Reasonably restricting the transfer of registered trademarks allows trademark ownership to be acquired for the purpose of use, not sale. For instance, if someone owns a trademark but never uses it, he or she cannot transfer it because obviously he or she applied for the trademark to sell it, but not to use it. Because people cannot make a profit through applying for a trademark, malicious registration rates could decrease. For those who apply for a trademark with *Bona Fide* intent, obtain it, and still want to transfer that trademark after registering it, they would still be able to transfer it without any obstacles because they would meet the requirements of prior use.

B. SET UP A CHINESE INTELLECTUAL PROPERTY LAWYERS ASSOCIATION

In China, there is only the Chinese Bar Association Intellectual Property Professional Committee and it serves the country, not parties to litigation.¹³⁷ Its functions are actively implementing the national intellectual property strategy and

¹³² *Id*.

¹³³ Id.

¹³⁴ See Mingming Xiao, The Instrumentality and Purpose of Law, People's Court Daily (2015).

¹³⁵ See Kitsuron Sangsuvan, Trademark Squatting, 31 Wis. INT'L L.J. 252, 286 (2013).

¹³⁶ See id. at 259.

¹³⁷ Main Deeds of the Intellectual Property Committee of the All China Lawyers Association, NATIONAL INTELLECTUAL PROPERTY STRATEGY NETWORK (Sep. 2, 2013), http://www.nipso.cn/onews.asp?id=18716.

expanding the field of lawyers' intellectual property legal services. ¹³⁸ There is a strong need for a dispute settlement body like in the U.S., which means setting up a Chinese Intellectual Property Lawyers Association is a good idea. ¹³⁹ Because the big rock—the prior use doctrine—cannot solve the problem of the true trademark owner still needing to spend too much time and money to assert his or her rights, the lawyer association idea works well with the proposed draft because it can help address this issue. For instance, lawyers can make use of Clause (5) § 22 in the proposed draft to help true owners claim rights; this not only saves time, but also money. Another significant benefit of the lawyer association is that it is a better way to adapt to new situations and solve new problems in the emergence of intellectual property rights. ¹⁴⁰

B. Benefits of Adopting Prior Use

Trademark squatting is increasing and a reoccurring nightmare arising among many trademark infringement disputes. With the globalization of the world economy, the importance and necessity of trademark protection within brand protection is increasingly highlighted. Adopting the doctrine of prior use can help trademark law face the coming challenges well and deal with persistent problems such as trademark squatting. Italy

1. Eradicate Trademark Squatting

As mentioned at the beginning of this paper, the reason why Chinese Trademark Law should introduce the doctrine of prior use is because of trademark squatting.¹⁴⁴ Granting prior registration without reviewing whether the applicant is using the trademark or not is the root of trademark squatting. There are two kinds of entities who conduct trademark squatting, one is an individual, and the other is an agency, so the following discussion will show how both parties will be extinct after integrating the concept of prior use into current Chinese trademark law provisions.

In the above proposed draft provision, Clause 5 says that an applicant shall submit a statement that verifies he or she is using the product name, which means that the applicant cannot apply for any trademark that is being used by others but not by himself or herself. At the same time, even though an applicant obtains a trademark that he or she is not the true owner of, Clause 6 says that *Bona Fide Intent* is essential when applying for a trademark; thus, the true owner can assert

¹³⁸ Id.

¹³⁹ Desheng, supra note 122.

¹⁴⁰ See id.

¹⁴¹ See id.

¹⁴² See Dima Basma, The Nature, Scope, and Limits of Modern Trademark Protection: A Luxury Fashion Industry Perspective, The University of Manchester (2016), https://www.research.manchester.ac.uk/portal/en/theses/the-nature-scope-and-limits-of-modern-trademark-protection-a-luxury-fashion-industry-perspective(0a0db7f8-56a0-4d4e-9c2b-afb30abc415a).html.

¹⁴³ Bei Sai, Advantages and Benefits of the "Use First" Principle of U.S. Trademark Registration, CLOUD IP PLATFORM (Apr. 30, 2020), https://www.saibeiip.com/ipr/trademark-d3990.html.

¹⁴⁴ See Part I.

their rights by repealing that applicant's trademark because he or she did not possess a *Bona Fide Intent*. ¹⁴⁵

While individuals can never apply for a trademark that he or she never uses, affiliated agencies engaged in trademark squatting will disappear as time goes on. Where there is profit is where the agencies will also be, so when there is no more profit in a given field, the number of agencies there will collapse. Maybe some agencies are strong enough to create an illusion that they meet the requirements of use and succeed in applying for a trademark. Clause 6 will put this conduct to an end because these agencies will have violated the *Bona Fide Intent* requirement.

2. Foreign Trademark Owners Have the Opportunity to Protect Their Rights

When some corporations apply for a Chinese trademark, they may find that their trademark has been registered by others in China based on provisions from the former trademark law. According to Clauses 5 and 6 in the proposed draft, foreign trademark owners have a one-year grace period to claim their trademark rights if their trademarks have been malevolently registered by others. If their trademarks have not been registered by others, their trademarks (for instance, well known trademarks), are still strongly protected before they apply for the trademark officially because of this one-year grace period.¹⁴⁶

3. Expense for True Owner to Claim Rights Will Decrease

According to former Chinese Trademark Law provisions, the true owner must demur when a trademark is being used by others or sue them when that trademark has been registered by others. When a case goes to court, it means that the true owner must put in a lot of time and money. The Chinese Intellectual Property Lawyers Association will help a lot because lawyers can precipitate intercession. Therefore, when the path to claiming rights becomes fast and effective, there is no need for the true owner to spend a lot of time and money to claim their rights. The true owner can also repeal a trademark under Clause 5 in the proposed draft and apply it pursuant to Clause 4.

III. CRITICISMS ON ADOPTING FIRST-TO-USE INSTEAD OF FIRST-TO-FILE IN CHINA

There may be resistance for adopting a first-to-use system because the proposal will thoroughly change the way to apply for a trademark in China. Owning a

¹⁴⁵ See Part II.

¹⁴⁶ See, e.g., Yicun Chen, The Impact of ACTA on China's Intellectual Property Enforcement, Nat'l L. Rev. (2012), http:// www.natlawreview.com/article/impact-acta-china-s-intellectual-property-enforcement ("Enforcement of the international IP agreements like ACTA is difficult for many developing countries partly because the developed countries have set the intellectual property standards..... [S]ince China and many other developing countries lack technological innovation, the incentives provided by intellectual property rights (for investment in research and development) are not meaningful."); see generally Leroy J. Pelicci Jr., China and the Anti-Counterfeiting Trade Agreement-ACTA Faith, or ACT Futility?: An Exposition of Intellectual Property Enforcement in the Age of Shanzhai, 1 Penn St. J. L & Int'l Aff. 121 (2012).

trademark is related to certain kinds of benefits among different parties, so any changes to this preexisting structure or arrangement of rights will most likely meet obstructions. People who disagree with the above proposal may say that because the first-to-file system has been adopted by Civil Law countries for so long that it should not be changed. Thus, the final part of this paper focuses on potential criticisms aimed towards implementing a first-to-use system in Chinese Trademark Law and how to deal with these potential criticisms.

A. Conflicts Between Proposals and Previous Trademark Owner

The first potential criticism of the proposal to consider is that the proposal is not practical because it infringes on the rights of previous trademark owners. Here is an example: If I maliciously registered and succeeded in acquiring a trademark on May 19, 2019, and after one day, on May 20, 2019, my proposal was approved and effective, are my trademark rights legal, or illegal? It looks like my trademark shall be revoked if some related persons submit a written paper to claim their rights, but the answer is that my rights are still valid and would be still effective regardless of whatever these related parties may do or allege. The reason behind this is the maxim of "Nulla poena sine lege", a fundamental principle in China, and it applies to all departments of law, and means that there is to be no penalty without a previous law. 147 No matter how unreasonable something looks pursuant to a present law, as long as it is valid according to a previous law and is done before a present law becomes effective, the conduct is still valid. 148 This means that if someone applied for a trademark and finished all the procedures before the above proposals become effective, then he would be the legal owner of a trademark because his actions are valid pursuant to the previous law. Based on the above, this criticism is not tenable and there is no conflict between the above proposed provisions and previous trademark owners because proposals only regulate subsequent actions. 149

B. Doctrine of Foreign Equivalents

The second potential criticism of the above proposal to consider is the meaning of the doctrine of foreign equivalents. The doctrine of foreign equivalents is a rule applied in United States trademark law which requires courts and the Trademark Trial and Appeal Board to translate foreign words when determining whether they are registrable as trademarks, or are confusingly similar to existing marks.¹⁵⁰ The doctrine is intended to protect consumers within the United States from confusion or deception caused by the use of terms in different languages.¹⁵¹ People may say that the protection for foreign trademarks, whether well-known or not, is not necessary because the doctrine of foreign equivalents will deal with that issue. The doctrine of foreign equivalents is a widely-used principle, but China does not adopt it. For

¹⁴⁷ See Li Li, Nulla Poena Sine Lege in China: Rigidity or Flexibility, 43 Suffolk U. L. Rev. 655 (2010).

¹⁴⁸ Id

¹⁴⁹ Id.

¹⁵⁰ Trademark Manual of Examining Procedure § 1207.01(b)(vi) (July 2021).

¹⁵¹ See Mark S. Mulholland, Doctrine Of Foreign Equivalents In Trademarks Of Growing Importance Resulting From Increase In International Trade, 4 13 N.Y. INT'L L. REV. 1 (2000).

instance, "Michael Jordan" is a trademark in the United States, and if you want to apply for "乔丹" or "Qiaodan" in the United States, it will be regarded as a trademark that is confusingly similar with the existing "Michael Jordan" trademark and you will fail in registering that mark. As a comparison, you can apply for "Michael Jordan", "乔丹", or "Qiaodan" separately, so it is necessary to regulate problems like this. The above proposal from this paper gives foreign trademarks an opportunity to eliminate actions that exploit an advantage due to differences in language. This criticism is not justified because adopting the doctrine of equivalents is not compatible with existing Chinese Trademark Law, so mirroring its principles somewhat in Chinese Trademark Law is a feasible approach.

CONCLUSION

The new amendment to Chinese Trademark Law was implemented on November 1, 2019, and people are waiting to see whether the changed laws work through new developments. The upcoming changes to Chinese Trademark Law look promising, but these changes will likely not be enough to prevent trademark squatters from targeting well-known foreign trademarks. Trademark squatting is able to persist largely due to the inherent complexity of the language as well as a lack of enforcement of existing laws. The basic rule results in the basic problem, which means that the first-to-file system in Chinese Trademark Law unquestionably leads to trademark squatting. Even though China is trying to eradicate trademark squatting by adapting to the development of intellectual property, these efforts are still not enough. In other words, the first-to-file system is simply inadequate in solving China's trademark squatting problems. Instead and in summary, adopting the prior use doctrine is the best way to improve Chinese Trademark Law.

¹⁵² State Intellectual Property Office of P.R. China, *supra* note 51.

¹⁵³ Chang, supra note 11, at 358.

¹⁵⁴ Id.