

## THE VIRTUES OF VIRTUAL MARKING IN PATENT REFORM

Corey McCaffrey\*

INTRODUCTION.....	367
I. PATENT MARKING.....	371
A. <i>Marking and Notice</i> .....	371
B. <i>False Marking</i> .....	374
C. <i>Virtual Marking</i> .....	375
II. VIRTUALLY THERE: PATENT REFORM.....	376
A. <i>History of Patent Marking Law</i> .....	377
B. <i>The Patent Reform Act of 2009 and the America Invents Act of 2011</i> .....	378
C. <i>The Proposed Virtual Marking Amendment</i> .....	379
III. VIRTUAL MARKING IMPLEMENTATIONS.....	380
A. <i>Research in Motion: An Attenuated Marking Site</i> .....	380
B. <i>Callaway Golf: Driving Closer to the Green</i> .....	382
IV. VIRTUAL MARKING REALITY .....	384
A. <i>Virtues</i> .....	384
B. <i>Vices</i> .....	394
V. IMPLEMENTATION AND ENFORCEMENT .....	398
A. <i>Amending the Amendment</i> .....	398
B. <i>Leveling the Playing Field</i> .....	398
C. <i>Alternatives to a Public Registry</i> .....	399
CONCLUSION.....	400

### INTRODUCTION

The world is full of reminders that we are surrounded by inventions. When we see a light bulb, we remember Thomas Edison.<sup>1</sup> When we hear a telephone, we recall Alexander Graham Bell.<sup>2</sup> But when we plot equations

---

\* J.D. Candidate, Northwestern University School of Law, 2011; M. Eng., Massachusetts Institute of Technology, 2006; S.B., Massachusetts Institute of Technology, 2005. My thanks go to my adviser, Professor Erik Maurer, attorney at Banner & Witcoff, Ltd., for his insight and guidance. I am also grateful for the support I received from Danielle Levine, Doug Winnard, Debra Lefler, and the rest of the editorial board of the *Northwestern University Law Review*, as well as Professor Justin Gray of Foley & Lardner LLP. I am especially thankful for the support of my loving wife, Michelle Desnick, Esq. and our beautiful baby girl, Ayelet.

<sup>1</sup> See U.S. Patent No. 223,898 (filed Nov. 4, 1879) (specifying an “Improvement in Electric Lamps”).

<sup>2</sup> See U.S. Patent No. 174,465 (filed Feb. 14, 1876) (specifying an “Improvement in Telegraphy”).

with a Texas Instruments (TI) graphing calculator, do we think of Ann Phipps? After all, like so many other products, the back of the TI-83 Plus is clearly marked with a list of patent numbers,<sup>3</sup> including two naming Phipps as an inventor.<sup>4</sup>

In all probability, few of us know that Phipps was not only a product manager in TI's Consumer Products Division<sup>5</sup> but that she was also one of the inventors of a "Calculator with Table Generation Capability."<sup>6</sup> By marking the back of the calculator with the number of this patent, TI asserted that the TI-83 Plus embodied this invention. Yet, of all of the potentially relevant patents assigned to TI, Phipps's patents were two of only three listed on the back of this calculator.<sup>7</sup> Surely, TI's primary intention was not to help make Phipps famous. More likely, TI marked patents on its product for legal effect.

Patent marking is defined by the United States Patent Act as the act of physically labeling a product or its packaging with the identification numbers of patents that ostensibly protect the inventive ideas embodied in the product.<sup>8</sup> The purpose of patent marking is to help prevent innocent infringement.<sup>9</sup> Marking provides constructive notice that a product is protected by the listed patent(s).<sup>10</sup> Notably, there are also penalties for abuses of the patent marking system, known as "false marking."<sup>11</sup>

This Comment argues in favor of permitting "virtual marking," whereby a patentee would be permitted to mark products with reference to a web-

<sup>3</sup> Next to other manufacturing and Federal Communications Commission (FCC) disclosures, the back of the TI-83 Plus reads "U.S.A. PATENTS / BREVETS / PATENTES 4823311 5377130 5532946." Photograph of Back of TI-83 Plus (on file with author).

<sup>4</sup> See U.S. Patent No. 5,532,946 (filed Sept. 11, 1995); U.S. Patent No. 5,377,130 (filed Jan. 26, 1993).

<sup>5</sup> See Press Release, Texas Instruments, Texas Instruments TI-82 Graphics Calculator Gives Secondary Students New Tools for Understanding Functions (Mar. 30, 1993), [http://education.ti.com/educationportal/sites/US/nonProductSingle/about\\_press\\_release\\_cg-388.html](http://education.ti.com/educationportal/sites/US/nonProductSingle/about_press_release_cg-388.html).

<sup>6</sup> See '946 Patent.

<sup>7</sup> See *supra* note 4.

<sup>8</sup> See 35 U.S.C. § 287(a) (2006).

<sup>9</sup> *DSW, Inc. v. Shoe Pavilion, Inc.*, 537 F.3d 1342, 1348 (Fed. Cir. 2008) ("The purpose of the notice requirement is to provide 'protection against deception by unmarked patented articles.' The idea is to prevent innocent infringement." (citation omitted) (quoting *Wine Ry. Appliance Co. v. Enter. Ry. Equip.*, 297 U.S. 387, 398 (1936))). "Innocent" infringement is infringement without intent or knowledge, as patent infringement is a strict liability offense. See 5 DONALD S. CHISUM, CHISUM ON PATENTS § 16.02[2] (2005). The Court of Appeals for the Federal Circuit has exclusive jurisdiction over appeals arising from issues in patent law. 28 U.S.C. §§ 1295(a), 1338 (2006).

<sup>10</sup> 35 U.S.C. § 287(a). "Constructive notice" of a patent creates the presumption that the alleged infringer has knowledge of the patent. See BLACK'S LAW DICTIONARY 1164 (9th ed. 2009) (defining constructive notice).

<sup>11</sup> 35 U.S.C. § 292(a). Briefly, "false marking" arises when a manufacturer labels a product with incorrect or misleading patent numbers. See *infra* Part II.B.

site that provides information about the product's patent protection.<sup>12</sup> For example, imagine that instead of marking the back of a calculator with "Pat. 5532946," TI marked it with "Patents: <http://ti.com/patents/calculators>," and that website displayed nothing but "Pat. 5532946."<sup>13</sup> At first glance, the distinction might seem trivial, but even this simple example of virtual marking has far-reaching implications for patent marking law.

The major advantage of virtual marking is that it untangles marking from the manufacturing process. Physical marking is expensive, inflexible, and increasingly inapplicable (e.g., for services and Internet products, which have no physical embodiment). For example, patentees must change their marks when their patents expire or become invalid in the course of litigation. But high manufacturing costs prevent patentees from changing their marks cheaply and efficiently.<sup>14</sup> Virtual marking would enable patentees to change their marks as quickly and easily as posting to a blog or sending an e-mail message.

Patent marking has become a hot-button issue recently. In the wake of a recent opinion from the Federal Circuit, which noted that enforcing the prohibition against false marking is an "important public policy,"<sup>15</sup> the number of lawsuits alleging false marking skyrocketed last year.<sup>16</sup> In February 2010, a single individual filed twenty-eight lawsuits in the Northern District of Illinois alone,<sup>17</sup> and he continued to file more throughout the year.<sup>18</sup> Fortunately, virtual marking enables patentees to change marks

<sup>12</sup> The author uses the terms "manufacturer" and "patentee" loosely to connote the class of entities upon which the Patent Act imposes a duty to mark. See 35 U.S.C. § 287(a) (referring to "[p]atentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States"). The parties involved are typically business entities, though individuals can also be liable for false marking or patent infringement.

<sup>13</sup> The simplicity of this example is not merely academic. BlackBerry manufacturer Research In Motion had a similarly simplistic site. See *infra* text accompanying note 93.

<sup>14</sup> See, e.g., *Pequignot v. Solo Cup Co. (Pequignot I)*, 646 F. Supp. 2d 790, 793 (E.D. Va. 2009) ("Solo estimates that it would have cost over \$500,000 to replace all of the inner rings—the parts containing the patent engravings—and \$1.5 million to replace the cavities in their entirety."), *aff'd in part, vacated in part*, 608 F.3d 1356 (Fed. Cir. 2010).

<sup>15</sup> *Forest Grp., Inc. v. Bon Tool Co. (Forest Group III)*, 590 F.3d 1295, 1304 (Fed. Cir. 2009).

<sup>16</sup> To track over 700 false marking lawsuits that have been filed since January 1, 2010, see Justin E. Gray, *False Marking Case Information*, GRAY ON CLAIMS, <http://www.grayonclaims.com/false-marking-case-information> (last updated Mar. 16, 2011); see also McDonnell Boehnen Hulbert & Berg-hoff LLP, *False Patent Marking*, <http://www.falsemarking.net> (last visited Mar. 18, 2011) (asserting that hundreds of false marking suits have been filed since January 1, 2010).

<sup>17</sup> Ameet Sachdev, *Manufacturers Face Patent-Suit Headaches*, CHI. TRIB., Mar. 2, 2010, § 6, at 17, available at [http://www.chicagotribune.com/business/ct-biz-0302-chicago-law-patents--20100301\\_0,233340.story](http://www.chicagotribune.com/business/ct-biz-0302-chicago-law-patents--20100301_0,233340.story).

<sup>18</sup> See Gray, *supra* note 16 (listing false marking suits by litigant Thomas Simonian); Justin E. Gray, *Filing of New False Patent Marking Cases Again Picking up Steam*, GRAY ON CLAIMS, <http://www.grayonclaims.com/home/2010/7/23/filing-of-new-false-patent-marking-cases-again-picking-up-st.html> (last visited Mar. 18, 2011) (indicating that Simonian had filed forty false marking lawsuits by August 25, 2010).

more easily and cheaply, thereby improving their ability to avoid potential false marking liability.

Several companies, including Research in Motion (RIM) and Callaway Golf, have already tried using some form of virtual marking.<sup>19</sup> Today, virtual marking does not comply with current patent marking law, but in March 2011 the Senate passed a bill that explicitly amends current law to authorize virtual marking, and the House is considering a bill that would do the same.<sup>20</sup> Unfortunately, the amendment leaves much to be desired, and Congress should take several steps to ensure that virtual marking law improves upon existing marking law.

Accordingly, this Comment makes two arguments. First, the virtual marking amendment should provide clearer guidelines to courts, which will ultimately be responsible for determining whether a particular virtual marking website complies with the statute. For example, the amendment should protect the privacy of members of the general public by prohibiting virtual marking websites from tracking visitors. Second, the government should either provide a public product registry or provide stringent guidelines for patentee or third-party marking websites.<sup>21</sup>

Part I introduces current patent marking and notice law. Part II provides a short history of patent marking law and an overview of the latest patent reform efforts in Congress, including a discussion of the proposed virtual marking amendment included in both the Patent Reform Act of 2009 and the America Invents Act of 2011. Part III presents two case studies of companies that recently used virtual marking, which highlight the inadequacy of the proposed virtual marking amendment. Part IV analyzes the likely impact of virtual marking and proposes several modifications to address the shortcomings of the amendment recently passed by the Senate.

---

<sup>19</sup> See *Callaway Golf Patents*, CALLAWAYGOLF.COM, <http://www.callawaygolf.com/Global/en-US/Legal/CallawayGolfPatents.html> (last visited Feb. 1, 2010) (image of former website on file with author); *Patent Information*, RESEARCH IN MOTION, <http://www.rim.com/patents> (last visited Nov. 9, 2009) (image of former website on file with author). Both of these websites have been taken down, but some of RIM's pages have been archived. See *Archive of RIM's Patents Website*, WEBARCHIVE.ORG, [http://web.archive.org/web/\\*/http://rim.net/patents](http://web.archive.org/web/*/http://rim.net/patents) (last visited Mar. 18, 2011).

<sup>20</sup> See *America Invents Act*, H.R. 1249, 112th Cong. § 15(a)(1) (as reported by H. Comm. on the Judiciary, Apr. 14, 2011); *America Invents Act*, S. 23, 112th Cong. § 4(b) (as passed by Senate, Mar. 8, 2011). Section 4(b) of the 2011 bill is identical to section 4(e) of the 2009 bill, which expired when the 111th Congress adjourned. See S. 515, 111th Cong. § 4(e) (as reported by S. Comm. on the Judiciary, Apr. 2, 2009).

<sup>21</sup> Chicago-based intellectual property asset management company Ocean Tomo launched a product registry service on February 8, 2010. Press Release, Ocean Tomo, *Ocean Tomo First to Directly Match Patents to Products* (Feb. 8, 2010), <http://www.patentmarking.com/patentmarking/newsFiles/Patent%20Marking%20Release%202--8-10.pdf>; see also *infra* text accompanying notes 178–79 (discussing the benefits of authorizing privately run registries).

## I. PATENT MARKING

A. *Marking and Notice*

In general, an unlicensed manufacturer that duplicates a patented invention may be liable to a patentee for infringement in a civil action.<sup>22</sup> The law permits patentees to recover damages<sup>23</sup> or seek an injunctive remedy.<sup>24</sup> Infringement need not be willful; even an innocent manufacturer that independently invents a previously patented idea can be strictly liable for infringement.<sup>25</sup> However, if the infringement is willful, the infringer can be liable for treble damages.<sup>26</sup>

To mitigate some of the risk to an innocent infringer, § 287 of the Patent Act limits the potential damages that a patentee could otherwise recover.<sup>27</sup> In particular, under § 287(a) the infringer is only liable if it had notice that the article was patented.<sup>28</sup> Marking enables the patent holder to provide constructive notice by labeling its product with the identification numbers of the patents protecting it.<sup>29</sup> The advantage of marking over filing a law-

<sup>22</sup> 35 U.S.C. § 271(a) (2006) (“[W]hoever without authority makes . . . any patented invention . . . infringes the patent.”); *id.* § 281 (“A patentee shall have remedy by civil action for infringement of his patent.”).

<sup>23</sup> *Id.* § 283.

<sup>24</sup> *Id.* § 284.

<sup>25</sup> See *In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc) (“Because patent infringement is a strict liability offense, the nature of the offense is only relevant in determining whether enhanced damages are warranted.”).

<sup>26</sup> See 35 U.S.C. § 284 (permitting enhanced damages at the discretion of the court); *Beatrice Foods Co. v. New Eng. Printing & Lithographing Co.*, 923 F.2d 1576, 1578 (Fed. Cir. 1991) (holding that an award of enhanced damages requires a showing of willful infringement).

<sup>27</sup> See 35 U.S.C. § 287.

<sup>28</sup> *Id.* § 287(a) (“[N]o damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter . . .”); see also *DSW, Inc. v. Shoe Pavilion, Inc.*, 537 F.3d 1342, 1348 (Fed. Cir. 2008) (“The purpose of the notice requirement . . . is to prevent innocent infringement.” (citation omitted)).

<sup>29</sup> 35 U.S.C. § 287(a) (“Patentees . . . may give notice to the public that [any patented article] is patented, either by fixing thereon the word ‘patent’ or the abbreviation ‘pat.’, together with the number of the patent . . .”). Marking intellectual property to give notice to the public is not unique to patent law. For example, with respect to federal trademark law, marketing material often includes the ® symbol next to registered trade names, brand names, logos, and slogans to give notice that they are registered marks. See 15 U.S.C. § 1111 (2006).

In copyright law, there is no duty to mark a copy of a copyrighted work, but an alleged infringer cannot claim the defense of innocent infringement if the alleged infringer had access to a marked copy. See 17 U.S.C. § 401(d) (2006) (concerning visually perceptible copies marked with the © symbol); *id.* § 402(d) (concerning phonorecords of sound recordings marked with the ℗ symbol). Thus, innocent infringement might involve, for example, making a copy of an unmarked book that the infringer reasonably believed was in the public domain.

Finally, the Vessel Hull Design Protection Act imposes a duty to mark vessel hull and deck designs. Pub. L. No. 105-304, § 502, 112 Stat. 2860, 2905–07 (1998) (codified at 17 U.S.C. §§ 1301–1332 (2006)). Otherwise, if the design infringer did not have actual written notice before undertaking infring-

suit—another way of providing notice<sup>30</sup>—is that compensable infringement occurs, and thus damages begin to accrue, at an earlier point in time.

A common misconception about patent marking is that it offers patentees a perquisite of “extra” damages. In fact, the statute imposes a *duty* to mark. The penalty for failure to mark is a limitation on damages for infringement.<sup>31</sup> That is, if the infringer did not have notice, the patentee cannot recover damages that accrued before a lawsuit was filed.

Not all patentees, however, have a duty to mark. For example, in each of these three scenarios no such duty exists<sup>32</sup>: (1) a patentee owns the patent for a machine but does not manufacture it,<sup>33</sup> (2) a patentee owns a process but does not manufacture anything that embodies the process,<sup>34</sup> and (3) a patentee owns a process and manufactures an article that embodies the process.<sup>35</sup> Because these patentees do not have a duty to mark, § 287 does

ing activities, the design owner must reimburse the infringer’s reasonable expenditures and contractual obligations before obtaining an injunction. 17 U.S.C. § 1307.

<sup>30</sup> 35 U.S.C. § 287(a) (“Filing of an action for infringement shall constitute . . . notice.”).

<sup>31</sup> *Id.* (“In the event of *failure* so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice.” (emphasis added)).

<sup>32</sup> The scenarios refer to processes and machines. “Process” (or “method”) and “machine” (or “apparatus”) are terms of art in patent law. For example, a business method may be patentable as a process even if it is not tied to a particular machine. *See id.* § 101 (establishing that new and useful processes and machines are patentable); *see also* *Bilski v. Kappos*, 130 S. Ct. 3218, 3226 (2010) (rejecting the Federal Circuit’s test that a claimed process is only patentable under § 101 if it is tied to a machine or apparatus or it “transforms a particular article into a different state or thing” (quoting *In re Bilski*, 545 F.3d 943, 944 (Fed. Cir. 2008))).

<sup>33</sup> *Wine Ry. Appliance Co. v. Enter. Ry. Equip. Co.*, 297 U.S. 387, 397 (1936) (holding that the marking statute did not “impose a new and different burden upon non-producing patentees” thereby depriving them of the right “to claim damages from an infringer unless and until he could be run down and served with actual notice”). Although the Supreme Court decided *Wine Railway* under older patent laws, the Federal Circuit has repeatedly applied its holdings under the current Patent Act. *See, e.g.*, *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1219 (Fed. Cir. 2002) (“Although *Wine Railway* interpreted a predecessor to the current patent marking statute, we have applied *Wine Railway* to the modern statutory counterpart . . .”).

<sup>34</sup> *Wine Ry.*, 297 U.S. at 395 (finding that Congress did not intend to permit “process patents and patents under which nothing has been manufactured” to be “secretly infringed with impunity”); *Bandag, Inc. v. Gerrard Tire Co.*, 704 F.2d 1578, 1581 (Fed. Cir. 1983) (explaining that “the notice requirement of this statute does not apply where the patent is directed to a process or method” because there is no “patented article” to mark).

<sup>35</sup> This scenario is more complicated because, unlike the first two scenarios in which the patentee does not manufacture anything, it arguably involves a manufactured article available to mark. It is further complicated by the fact that a single patent can contain both process and apparatus claims and that the patentee chooses which claims within a patent to assert in an infringement action. In this third scenario, if the patentee asserts *only* process claims, then the patentee still has no duty to mark the manufactured article to give notice of a patent that contains both process and apparatus claims. *See* *Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1308, 1317 (Fed. Cir. 2009) (“Because Rexam asserted only the method claims of the ’839 patent, the marking requirement of 35 U.S.C. § 287(a) does not apply.”). However, if the patentee in this third scenario asserts both process and appa-

not bar them from seeking damages that may have accrued before the infringer had notice of the infringed patent.<sup>36</sup> The Supreme Court's rationale for exempting the nonmanufacturing patentees from the marking requirement is that "[p]enalty for failure implies opportunity to perform."<sup>37</sup> These nonmanufacturing patentees have no opportunity to physically mark their products, so they are exempt from the penalty.

Being exempt from the duty to mark, however, is a double-edged sword for nonmanufacturing patentees.<sup>38</sup> Although nonmanufacturing patentees need not mark anything to seek damages for infringement occurring before the infringer had notice of the patent, those damages are limited to a "reasonable royalty"—what the infringer would have reasonably paid to license the patent during the time period preceding the lawsuit filing date.<sup>39</sup> On the other hand, manufacturing patentees who satisfy their duty to mark may seek greater damages in the form of lost profits for the additional time period that marking protects, from the initiation of infringement of the marked article to the filing of the lawsuit.<sup>40</sup>

To recover under the marking statute, patentees must satisfy the requirement that marking be "consistent and continuous."<sup>41</sup> Courts have de-

---

ratus claims from the patent, and the article was not marked, then the plaintiff is barred from seeking pre-lawsuit damages for *both* the process and apparatus claims. *See Am. Med. Sys., Inc. v. Med. Eng'g Corp.*, 6 F.3d 1523, 1539 (Fed. Cir. 1993) ("[B]oth apparatus and method claims of the '765 patent were asserted. . . . Therefore, we conclude that AMS was required to mark its product pursuant to section 287(a) in order to recover damages under its *method* claims. . . ." (emphasis added)).

<sup>36</sup> *E.g., Tex. Digital Sys.*, 308 F.3d at 1220 ("The recovery of damages is not limited where there is no failure to mark, i.e., where the proper patent notice appears on products or where there are no products to mark."); *see also supra* notes 32–35 (describing three scenarios in which there is no duty to mark).

<sup>37</sup> *Wine Ry.*, 297 U.S. at 395.

<sup>38</sup> A nonmanufacturing patentee is often referred to as a "non-practicing entity" (NPE) or, pejoratively, a "patent troll." *See Has the Enemy of Patent Trolls Become One?*, CIOINSIGHT (Dec. 5, 2005), <http://www.cioinsight.com/c/a/Trends/Has-the-Enemy-of-Patent-Trolls-Become-One> ("In 2001, when he was assistant general counsel at Intel Corp., Peter Detkin famously coined the term 'patent troll' to describe firms that acquire patents only to extract settlements from companies on dubious infringement claims.").

<sup>39</sup> *See* 35 U.S.C. § 284 (2006); Roger D. Blair & Thomas F. Cotter, *An Economic Analysis of Damages Rules in Intellectual Property Law*, 39 WM. & MARY L. REV. 1585, 1595 n.43 (1998) (defining reasonable royalty as "the royalty that willing parties would have agreed to had they negotiated a license under the patent" (citing 7 DONALD S. CHISUM, CHISUM ON PATENTS § 20.03 (1997))).

<sup>40</sup> Blair & Cotter, *supra* note 39, at 1595 n.43 ("Lost profits, in [the] form of sales diversion, price erosion, or increased expense, are an appropriate basis for recovery when the patent owner (or an exclusive licensee) exploits the lawful exclusive rights of the patent directly by manufacture, use or sale." (citing CHISUM, *supra* note 39, § 20.03)). Some indirect damages may be recoverable as well. *See Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1546–47 (Fed. Cir. 1995) (holding that damages could include recovery for lost sales for a device not covered by the patent in suit).

<sup>41</sup> *See, e.g., Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1446 (Fed. Cir. 1998) ("In order to satisfy the constructive notice provision of the marking statute, Nike must have shown that substantially all of the Air Mada Mid shoes being distributed were marked, and that once marking was begun, the marking was substantially consistent and continuous.").

veloped this standard because § 287 does not expressly define what is required to comply with the marking statute.<sup>42</sup> In general, a patentee fails to meet this standard if it neglects to mark some of the manufactured articles or stops marking the articles altogether for some period of time.<sup>43</sup> Compliance under this standard is a question of fact, and the patentee has the burden of proving compliance.<sup>44</sup>

If Congress amends § 287 to permit virtual marking, courts will have the challenge of determining what form of virtual marking complies with the consistent-and-continuous standard under the statute.<sup>45</sup> For example, if a company's virtual marking website experiences server downtime, a court will have to decide whether that constitutes a violation of the continuous prong of the consistent-and-continuous standard.

### B. False Marking

Patentees who mark their products with incorrect patent numbers risk exposure to charges of false marking. To shield against the power accorded to patentees by § 287, § 292 prohibits false marking to deter patentees from deceitful abuse of the system.<sup>46</sup> Proscription against false marking has existed since the inception of marking law and remains largely unchanged from its historical origins.<sup>47</sup> Currently, a patentee can be fined up to \$500 for each offense.<sup>48</sup> False marking claims are relatively easy to file.

Even though § 292 is a criminal statute,<sup>49</sup> it provides a qui tam action, meaning that any individual can sue in a civil action on behalf of the United

<sup>42</sup> See 35 U.S.C. § 287(a) (explaining only that marking is achieved “by fixing thereon the word ‘patent’ or the abbreviation ‘pat.’, together with the number of the patent, or when . . . this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice”).

<sup>43</sup> See, e.g., *Nike*, 138 F.3d at 1447 (remanding because Nike could not meet its burden where Wal-Mart alleged that some of Nike's shoes were sold unmarked).

<sup>44</sup> *Id.* (“[C]ompliance with the marking statute is a question of fact, and the burden of proving compliance with the marking statute is upon the patentee.” (citing *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1111 (Fed. Cir. 1996))).

<sup>45</sup> See *infra* Part IV.B.2.

<sup>46</sup> See 35 U.S.C. § 292(a) (imposing a fine for deceiving the public with a false mark).

<sup>47</sup> For a discussion of the history of false marking law, see *infra* Part II.A.

<sup>48</sup> 35 U.S.C. § 292(a). In the most straightforward case, a manufacturer may be fined up to \$500 for each instance in which it marks a product with a fake patent number with the intent to deceive the public. *Id.* A nefarious manufacturer might choose to mark fraudulently for several reasons. First, a manufacturer may do so for the purpose of counterfeiting or to make customers think the product is more valuable or useful because it involves an invention. Second, false marking might deter potential competitors from duplicating the functionality of the product by causing them to assume, upon seeing the mark, that their potential similar venture will be a futile and expensive act of infringement. This reason is not as far-fetched as it sounds, particularly when the manufacturer uses virtual marking. A virtual marking website listing thousands of patent numbers, where some apply but others do not, creates an enormous amount of due diligence work for a potential competitor, which must sift through the list. See *infra* Part IV.B.1.

<sup>49</sup> S. REP. NO. 82-1979, at 9 (1952).

States and keep part of the penalty as a bounty.<sup>50</sup> The ease with which any individual can file a false marking claim has drawn the attention of Congress. The House's and Senate's 2011 patent reform bills include an amendment to § 292, which would eliminate the qui tam action and limit private lawsuits to plaintiffs who have "suffered a competitive injury" due to false marking violations.<sup>51</sup>

In the meantime, however, patentees must be careful about the accuracy of patent numbers marked on their products. Even patentees who use virtual marking might be liable for false marking if their virtual marking websites list inaccurate patent numbers. False marking cases have produced occasionally bizarre but highly influential results, which are discussed fully below.<sup>52</sup>

### C. *Virtual Marking*

The rationale for virtual marking is that patenting an invention and manufacturing a product are distinct processes. Patents are dynamic: new patents are granted, existing patents expire, and a patent's scope may change during its lifetime. Manufacturing, on the other hand, is typically static: manufacturing equipment is expensive to change, and individual products are not modified after production. Traditional patent marking entangles these different processes by requiring patent numbers to be labeled on physical products. Section 287 describes precisely how manufactured articles must be marked to comply with the statute:

---

<sup>50</sup> 35 U.S.C. § 292(b) ("Any person may sue for the penalty, in which event one-half shall go to the person suing and the other to the use of the United States."). Although a payday of up to \$250 for a single offense might be insufficient motivation to sue, the penalty could escalate quickly if a manufacturing process had generated multiple offenses.

Like marking and notice, false marking of intellectual property is not unique to patent law. Under federal trademark law, there is neither a qui tam action nor a fixed penalty for false marking, but false trademark marking is still an act of fraud. See Act of July 5, 1946, ch. 540, § 46, 60 Stat. 427, 444 (codified at 15 U.S.C. §§ 1051–1127 (2006)); 3 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 19:146 (4th ed. 2009) (discussing false trademark marking as developed by case law in the absence of an explicit false marking statute in the Trademark Act). There is no explicit false marking statute in the Copyright Act for ordinary works. However, there is a false marking statute in the Vessel Hull Design Protection Act, which Congress closely modeled after § 292 of the Patent Act. See 17 U.S.C. § 1326 (2006) (providing a qui tam action for one-half of the penalty, a fine of not more than \$500 for each offense of false design marking).

<sup>51</sup> H.R. 1249, 112th Cong. § 15(b) (as reported by H. Comm. on the Judiciary, Apr. 14, 2011); S. 23, 112th Cong. § 2(k) (as passed by Senate, Mar. 8, 2011). This amendment first appeared in 2010. See Kevin E. Noonan, *Qui Tam Actions in Senate Sights: Manager's Amendment of S. 515 Would Eliminate Most Suits*, PATENT DOCS (Mar. 4, 2010, 5:28 PM), <http://www.patentdocs.org/2010/03/qui-tam-actions-in-senate-sights.html>; see also Stephen Albainy-Jenei, *The Patent Reform Act of 2010: A Substitute S. 515*, PATENT BARISTAS (Mar. 5, 2010), <http://www.patentbaristas.com/archives/2010/03/05/the-patent-reform-act-of-2010-a-substitute-s-515> (describing the amendment and providing a link to an unofficial version: <http://www.patentbaristas.com/wp/wp-content/uploads/2010/03/GRA10057.pdf>).

<sup>52</sup> See *infra* Part IV.A.2–3.

[E]ither by fixing thereon the word “patent” or the abbreviation “pat.,” together with the number of the patent, or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice.<sup>53</sup>

With virtual marking, instead of marking a manufactured article with a patent number, the patentee marks it with a Uniform Resource Locator (URL), or web address, such as <http://acme.com/patents/product>.<sup>54</sup> The URL points to a website that lists the patent numbers that would otherwise have been marked directly on the product.<sup>55</sup>

At first glance, there is minimal difference between ordinary patent marking and virtual marking: the same result is achieved, except that virtual marking adds the extra step of typing the URL into a web browser to find the relevant patent numbers. However, that extra step makes a profound difference for patentees’ ability to maintain compliance and for the general public’s ability to obtain complete and accurate information about what is patent-protected.

## II. VIRTUALLY THERE: PATENT REFORM

In addition to the proposed amendment to the false marking statute, the Patent Reform Act of 2009 and the America Invents Act of 2011 both include a proposed amendment to § 287, which would permit virtual marking as an alternative method for complying with the duty to mark.<sup>56</sup> This Part presents a brief history of patent marking law and provides an overview of the amendments that were proposed during the 111th and 112th sessions of Congress.

---

<sup>53</sup> 35 U.S.C. § 287(a).

<sup>54</sup> In 1999, the Section for Intellectual Property of the American Bar Association proposed amendments to § 287(a) resembling contemporary proposals for virtual marking. The virtual marking proposed would convey notice either by providing instructions for obtaining a list of patents pertaining to the product or by including a marking denoting that the patents are listed on a “National Patented Product Register” maintained by the U.S. Patent and Trademark Office (USPTO). See Proposed Resolutions 108-8 & 108-9, 1999 A.B.A. SEC. FOR INTELL. PROP. 55 (Mark K. Dickson & David A. Rose eds., 1999).

<sup>55</sup> No form of intellectual property in the United States permits virtual marking today. Trademark law in particular would benefit from virtual marking to identify the registration number of the trademark and convey other related information. The closest concept in trademark law to virtual marking is the practice of detailing trademark *usage* information on a registrant’s website. See, e.g., *Guidelines for Third Party Use of Google Brand Features*, GOOGLE, <http://www.google.com/permissions/guidelines.html> (last visited Mar. 18, 2011) (requesting that the public never use “Google” as a verb); *General Microsoft Trademark Guidelines*, MICROSOFT, <http://www.microsoft.com/about/legal/trademarks/usage/general.msp>x (last visited Mar. 18, 2011) (requesting that the public never refer to multiple presentations as “PowerPoints”).

<sup>56</sup> See America Invents Act, H.R. 1249, 112th Cong. § 15(a)(1) (as reported by H. Comm. on the Judiciary, Apr. 14, 2011); America Invents Act, S. 23, 112th Cong. § 4(b) (as passed by Senate, Mar. 8, 2011); Patent Reform Act of 2009, S. 515, 111th Cong. § 4(e) (as reported by S. Comm. on the Judiciary, Apr. 2, 2009). Although some companies such as RIM and Callaway engage in a form of virtual marking, their virtual marking practices do not comply with § 287 as it exists today. See *infra* Part III.

*A. History of Patent Marking Law*

The virtual marking amendment passed in the Senate in March 2011 and currently pending in the House is the most recent step in the marking statute's long development. U.S. patent law arose directly from the Constitution, which grants Congress the power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."<sup>57</sup> Congress first took up its charge by passing the Patent Act in April of 1790,<sup>58</sup> and President George Washington signed the first patent about three months later.<sup>59</sup> Congress has replaced this original legislation several times—first in 1793<sup>60</sup> and most recently in 1952.<sup>61</sup> The 1952 Act, which has been amended at various times, forms the basis of modern U.S. patent law.

For decades, U.S. patent law did not contain any marking provisions, and patentees had no duty to mark products or give notice to potential infringers.<sup>62</sup> Not until 1842 did marking and false marking provisions first appear.<sup>63</sup> At first, a failure to satisfy the affirmative duty to mark resulted in a fine of at least \$100, the same penalty imposed at the time for false marking.<sup>64</sup> However, in 1861, Congress changed the penalty for failing to mark to a limitation on damages, which endures in the modern marking statute.<sup>65</sup>

Congress enacted the present-day form of both the marking and false marking statutes as part of the 1952 Act.<sup>66</sup> Significantly, the maximum false marking fine of \$500 was first set in 1952.<sup>67</sup> Had it kept pace with in-

<sup>57</sup> U.S. CONST. art. I, § 8, cl. 8. No debate over this Clause was recorded. KENNETH W. DOBYNS, *THE PATENT OFFICE PONY: A HISTORY OF THE EARLY PATENT OFFICE* 19 (1997).

<sup>58</sup> Patent Act of 1790, ch. 7, 1 Stat. 109 (repealed 1793). The United States had its first patent statute before its thirteenth state. DOBYNS, *supra* note 57, at 22 (noting that Rhode Island did not ratify the Constitution and join the Union until May 29, 1790).

<sup>59</sup> U.S. Patent No. X1 (issued July 31, 1790) (claiming an improvement "in the making of Pot ash and Pearl ash by a new Apparatus and Process").

<sup>60</sup> Patent Act of 1793, ch. 11, § 12, 1 Stat. 318, 323 (repealed 1836). The 1793 Patent Act abolished the Patent Board and eliminated examination of patent applications, automatically registering patents and leaving them to the courts to sort out. DOBYNS, *supra* note 57, at 35.

<sup>61</sup> Patent Act of 1952, ch. 950, 66 Stat. 792 (codified as amended at 35 U.S.C. (2006)).

<sup>62</sup> CHISUM, *supra* note 39, § 20.03[7][c][i] (1997). The Supreme Court had noted that "[p]atents are public records" and that "[a]ll persons are bound to take notice of their contents." *Boyd v. Burke*, 55 U.S. (14 How.) 575, 582 (1852).

<sup>63</sup> See Patent Act of 1842, ch. 263, §§ 5–6, 5 Stat. 543, 544–45 (repealed 1861); CHISUM, *supra* note 39, § 20.03[7][c][i].

<sup>64</sup> See Patent Act of 1842, §§ 5–6, 5 Stat. at 544–45.

<sup>65</sup> Patent Act of 1861, ch. 88, § 13, 12 Stat. 246, 249 (repealing Patent Act of 1842, § 6); *cf.* 35 U.S.C. § 287(a) (2006) (providing that the penalty for breaching the affirmative duty to mark is a similar limitation on damages).

<sup>66</sup> Patent Act of 1952, §§ 287, 292. For an overview of the current marking statutes, see *supra* Part I.A–C.

<sup>67</sup> Patent Act of 1952, § 292(a).

flation, the statutory fine would be capped at just over \$4000 per offense today.<sup>68</sup> Although false marking actions have become less lucrative in principle due to inflation, they are becoming increasingly vogue in practice because the potential total fine grows quickly for mass-produced products such as plastic coffee lids.<sup>69</sup>

*B. The Patent Reform Act of 2009 and the America Invents Act of 2011*

U.S. patent law reform has been a recurring issue for at least the past four sessions of Congress.<sup>70</sup> When Senator Patrick Leahy introduced his previous patent reform proposal on March 3, 2009, he implored Congress to amend the patent system to reflect the modern technological and commercial environment.<sup>71</sup> The 2009 Senate bill, which did not end up being put to a vote,<sup>72</sup> differed from both the bill as Leahy introduced it and a subsequent House bill in that it included an amendment to § 287 to permit virtual marking.<sup>73</sup> Despite the failure of the Patent Reform Act of 2009, Senator Leahy introduced similar legislation in 2011, which the Senate passed as the America Invents Act in March 2011.<sup>74</sup> If any provision in both the 2009 and 2011 bills exemplifies the technological advances of the Information Age, it is the virtual marking amendment. If the House passes the 2011 bill, patentees will be able to utilize the Internet to mark their products and fulfill their statutory duty.

Historically, patent reform has been hotly debated, and many parts of the 2009 and 2011 bills are no exception.<sup>75</sup> The virtual marking amend-

---

<sup>68</sup> To calculate inflation of the marking fine, see *CPI Inflation Calculator*, BUREAU OF LABOR STATISTICS, [http://www.bls.gov/data/inflation\\_calculator.htm](http://www.bls.gov/data/inflation_calculator.htm) (last visited Mar. 18, 2011) (calculating that \$500 in 1952 had the same buying power as \$4175.64 in 2011).

<sup>69</sup> See *supra* note 16 and accompanying text.

<sup>70</sup> See, e.g., H.R. 1249, 112th Cong. (as reported by H. Comm. on the Judiciary, Apr. 14, 2011); S. 23, 112th Cong. (as passed by Senate, Mar. 8, 2011); S. 515, 111th Cong. (as reported by S. Comm. on the Judiciary, Apr. 2, 2009); S. 1145, 110th Cong. (2007); S. 3818, 109th Cong. (2006). The four Senate bills were all cosponsored by at least Senators Patrick Leahy and Orrin Hatch. See S. 35, S. 515; S. 1145; S. 3818. The Senate passed the most recent bill on March 8, 2011; on April 14, 2011, the House Committee on the Judiciary reported a version.

<sup>71</sup> See 155 CONG. REC. S2707 (daily ed. Mar. 3, 2009) (statement of Sen. Leahy) (introducing S. 515).

<sup>72</sup> See *S. 515: Patent Reform Act of 2009*, GOVTRACK.US, <http://www.govtrack.us/congress/bill.xpd?bill=s111-515> (last visited Mar. 18, 2011) (noting that the bill never became law, as all proposed bills that have not been passed are cleared from the books at the end of each Congress).

<sup>73</sup> For the full details of the virtual marking amendment, see *infra* Part II.C.

<sup>74</sup> See H.R. 1249; S. 23.

<sup>75</sup> See, e.g., Grant Gross, *Technology Issues on Back Burner in U.S. Congress*, CIO.COM, Sept. 15, 2009, [http://www.cio.com/article/502199/Technology\\_Issues\\_on\\_Back\\_Burner\\_in\\_US\\_Congress](http://www.cio.com/article/502199/Technology_Issues_on_Back_Burner_in_US_Congress) (“[G]roups on both sides of the issue seem unwilling to compromise. The debate has largely pitted large tech vendors against pharmaceutical companies, small inventors and some small tech vendors, who oppose the changes.”); Kevin E. Noonan, *Reaction to Senate Patent Reform Act (S. 23)*, PATENT DOCS (Feb. 9, 2011), <http://www.patentdocs.org/2011/02/reaction-to-senate-patent-reform-act-s23.html> (summarizing criticism of the 2011 bill from a variety of lobbying organizations).

ment, however, appears to be uncontroversial: the addition of the virtual marking amendment to Senator Leahy's 2009 bill garnered not a single mention on the record.<sup>76</sup> Following the official reporting of the bill, Leahy made an additional report on May 12, 2009, to accompany the bill.<sup>77</sup> In it, Leahy suggested that the virtual marking amendment would "save costs for producers of products that include technology on which a patent issues after the product is on the market, and will facilitate effective marking on smaller products."<sup>78</sup> Leahy also clarified that the amendment would not shift away from the patentee the burden of proving that the marking was effective.<sup>79</sup>

Aside from Senator Leahy's report, the only other official comment on virtual marking came from a Department of Commerce letter to the Senate, which included a brief statement of the Obama Administration's support for virtual marking.<sup>80</sup> Although the virtual marking amendment from the 2009 and 2011 bills represents a step in the right direction, the amendment does not go far enough to ensure that it would lead to useful and beneficial changes in manufacturing practices.<sup>81</sup>

### C. *The Proposed Virtual Marking Amendment*

The marking statutes have gone through only minor revisions by amendment since they were first introduced in 1952.<sup>82</sup> The virtual marking amendment that was first proposed in 2009 and reintroduced in 2011 would permit marking with a URL instead of patent numbers.<sup>83</sup> The amendment as passed by the Senate in March 2011 and as currently pending in the House would insert the following provision into § 287(a):

Patentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States, may give notice to the public that the same is patented, either by fixing thereon the word "patent" or the abbreviation "pat.," together with the number of the patent, *or by fixing thereon the word "patent" or the*

<sup>76</sup> See *Patent Reform in the 111th Congress: Legislation and Recent Court Decisions: Hearing Before the S. Comm. on the Judiciary*, 111th Cong. (2009) (providing no reference to virtual marking in the entire hearing on patent reform).

<sup>77</sup> See S. REP. NO. 111-18 (2009).

<sup>78</sup> *Id.* at 14.

<sup>79</sup> *Id.*

<sup>80</sup> Letter from Gary Locke, Sec'y of Commerce, Dep't of Commerce, to Patrick J. Leahy, Chairman, and Jefferson B. Sessions, III, Ranking Member, S. Comm. on the Judiciary 5 (Oct. 5, 2009), available at <http://www.ogc.doc.gov/ogc/legreg/letters/111/S515Oct0509.pdf> ("The Administration supports . . . permitting virtual marking of patented articles on a USPTO-managed website to provide innovators a cost-saving alternative for marking products.").

<sup>81</sup> See *infra* Part IV.B.

<sup>82</sup> The last time Congress made any changes to § 287 was in 1999. See 35 U.S.C. § 287 (2006) (providing amendment history in the notes following the text of the statute, under "Amendments").

<sup>83</sup> H.R. 1249, 112th Cong. § 15(a)(1) (as reported by H. Comm. on the Judiciary, Apr. 14, 2011); S. 23, 112th Cong. § 4(b) (as passed by Senate, Mar. 8, 2011); S. 515, 111th Cong. § 4(e) (as reported by S. Comm. on the Judiciary, Apr. 2, 2009).

*abbreviation “pat.” together with an address of a posting on the Internet, accessible to the public without charge for accessing the address, that associates the patented article with the number of the patent, or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice. In the event of failure so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice.*<sup>84</sup>

Throughout the remainder of this Comment, the term “virtual marking site” will be used to denote “a posting on the Internet, accessible to the public without charge for accessing the address, that associates the patented article with the number of the patent” as conceived by the proposed amendment.<sup>85</sup> The term “product page” will be used to denote a part of a virtual marking site that is specific to a single product. Having explored the historical origins and possible future of patent marking law, this Comment will discuss the practical implications of virtual marking.

### III. VIRTUAL MARKING IMPLEMENTATIONS

Despite the fact that the virtual marking amendment did not become law in 2009 and is still pending in the House in 2011, some companies have already tried using or promoting some form of virtual marking. Although a court would not consider a virtual marking site compliant with the current form of § 287, these early examples of virtual marking provide a glimpse at what these companies thought ought to be considered compliant. They also highlight problems with the virtual marking amendment, which as proposed lacks provisions that would ensure that the potential benefits of virtual marking materialize.<sup>86</sup>

This Part presents recent implementations of virtual marking. The first came from Research in Motion (RIM), which manufactures the BlackBerry line of mobile devices. The second is from Callaway Golf.

#### A. *Research in Motion: An Attenuated Marking Site*

RIM formerly marked its devices, not with patent numbers, but with a URL.<sup>87</sup> This address pointed to RIM’s patent webpage,<sup>88</sup> which was akin to

<sup>84</sup> The passage depicts § 287(a) with the language of the virtual marking proposal italicized. 35 U.S.C. § 287(a); H.R. 1249 § 15(a)(1); S. 23 § 4(b).

<sup>85</sup> See H.R. 1249 § 15(a)(1); S. 23 § 4(b).

<sup>86</sup> See *infra* Part IV.B.

<sup>87</sup> For an image of a marked BlackBerry Curve 8300, see Kevin Michaluk, *Smartphone Round Robin: Back on the Crack and Loving It!*, CRACKBERRY.COM (Dec. 8, 2007, 4:50 PM), <http://crackberry.com/smartphone-round-robin-back-crack-and-loving-it> (containing an image captioned “While I had the Battery Cover off, I figured a new 6GB MicroSDHC card would make a nice present to myself and my BlackBerry,” which displays RIM’s patent website’s URL labeled on the electronics).

a virtual marking site. Technically, however, RIM's marking approach did not comply with § 287(a), which explicitly requires marking the number of the patent on the product itself or, if necessary, on the packaging in which the product is contained.<sup>89</sup> Because RIM used virtual marking but does not use traditional marking on the BlackBerry itself or the BlackBerry's packaging, RIM's virtual marking did not satisfy the statute.<sup>90</sup> RIM has since taken down its patent webpage.

An interesting question is whether RIM's site would have constituted legally sufficient marking under the virtual marking amendment that the Senate passed in March 2011 and the House is currently considering.<sup>91</sup> By keeping the site updated and listing many patent numbers from around the world, RIM arguably provided more detailed and timely information than it could have if it had only labeled its BlackBerry devices with a handful of U.S. patent numbers. However, recall that the proposed amendment would require "associat[ing] the patented article with the number of the patent."<sup>92</sup> RIM's site listed thousands of patent numbers worldwide from over fifty countries, including over four hundred from the United States alone.<sup>93</sup> Yet, RIM's site did not satisfy this provision because every BlackBerry referenced the same website, and the site did not indicate which patent numbers were associated with particular models.<sup>94</sup> Therefore, RIM's site likely satisfied neither current marking law nor the proposed virtual marking amendment.

The site's design also exposed RIM to potential liability for false marking under § 292.<sup>95</sup> If a competitor saw a BlackBerry marked with the address and visited RIM's site, it may have been led to believe that *all* of the thousands of listed patents protected the device when, in reality, only a subset of those patents actually cover it. Although it would have been a Herculean task to look up and sift through every patent listed on RIM's site, at least one of the patents that was listed on the site clearly does not cover all of RIM's products: U.S. Design Patent No. D556,191 (the D'191 patent). This patent claims a design for a mobile keypad with four rows of five keys

---

<sup>88</sup> See *Patent Information*, *supra* note 19.

<sup>89</sup> 35 U.S.C. § 287(a) (2006).

<sup>90</sup> See *id.* J. Matt Buchanan also raised the issue of whether RIM's site constituted "legally sufficient marking" although he did not resolve the question. J. Matt Buchanan, *Product Marking by Reference to Website*, PROMOTE THE PROGRESS (Nov. 15, 2004, 7:55 AM), <http://promotetheprogress.com/product-marking-by-reference-to-website>.

<sup>91</sup> Buchanan suggested that RIM's site "would probably be insufficient under the amendment" because it did not differentiate between RIM's products. J. Matthew Buchanan, Posting, TWITTER (Apr. 2, 2009), <http://twitter.com/ptp/statuses/1438247638>.

<sup>92</sup> H.R. 1249, 112th Cong. § 15(a)(1) (as reported by H. Comm. on the Judiciary, Apr. 14, 2011); S. 23, 112th Cong. § 4(b) (as passed by Senate, Mar. 8, 2011).

<sup>93</sup> See *Patent Information*, *supra* note 19.

<sup>94</sup> See *id.* (providing a list of patents by country but not by product).

<sup>95</sup> See 35 U.S.C. § 292.

patterned after the traditional QWERTY layout,<sup>96</sup> except that most keys have two letters (for example, the top-left key contains both “Q” and “W”).<sup>97</sup> Not all of RIM’s models use this design, however. For example, the BlackBerry Curve 8300 has a “full QWERTY keyboard that is optimized for fast, accurate typing,”<sup>98</sup> and the BlackBerry Storm2 9550 has a full-size touch screen but no physical keyboard at all.<sup>99</sup>

According to § 292, anyone who marks an unpatented article with an indication that it is patented in order to deceive the public is liable for false marking.<sup>100</sup> Although the Curve and Storm2 models are undoubtedly covered by many patents that were listed on RIM’s site, they are not covered by at least the D’191 patent. Members of the public viewing the long list of patents on RIM’s website might have been deceived into thinking that over four hundred patents, including the D’191 patent, cover a particular BlackBerry device when some do not. Although the virtual marking amendment would not have changed the false marking statute, it is likely that a poorly designed or maintained virtual marking site might expose a patentee to false marking liability. If RIM’s site had differentiated among its products by, for example, including the D’191 patent in a list of patents covering the BlackBerry Pearl but not a list of patents for the Curve, then RIM would have been better positioned to comply with both § 287 and § 292.

### B. *Callaway Golf: Driving Closer to the Green*

Until it was recently taken down as well, Callaway Golf’s (Callaway’s) patent website<sup>101</sup> asserted that “[i]n accordance with Section 287(a) of Title 35 of the United States Code, the reader is hereby placed on notice of Callaway Golf Company’s rights in the United States Patents listed on this site.”<sup>102</sup> Like RIM’s patent website, though, Callaway’s site likely did not constitute constructive notice and thus failed to fulfill the current marking requirement of § 287.

---

<sup>96</sup> See U.S. Patent No. 207,559 fig.3 (filed Mar. 8, 1875) (depicting the original 1878 typewriter layout in which the six top-left keys spell “QWERTY”); see also, e.g., STAN J. LIEBOWITZ & STEPHEN E. MARGOLIS, *THE ECONOMICS OF QWERTY: HISTORY, THEORY, AND POLICY* 31–32 (Peter Lewin ed., 2002) (discussing the historical mechanical motivations for the layout, which are no longer relevant to modern keyboards).

<sup>97</sup> U.S. Patent No. D556,191 (filed Apr. 21, 2006) (claiming “[t]he ornamental design for a keyboard for a handheld communication device”).

<sup>98</sup> *BlackBerry Curve 8300 Features*, BLACKBERRY.COM, [http://na.blackberry.com/eng/devices/blackberrycurve8300/curve\\_features.jsp#keyboard](http://na.blackberry.com/eng/devices/blackberrycurve8300/curve_features.jsp#keyboard) (last visited Mar. 18, 2011) (showing the Curve’s keyboard’s traditional QWERTY layout with one letter per key).

<sup>99</sup> *BlackBerry Storm2 9550 Smartphone*, BLACKBERRY.COM, <http://na.blackberry.com/eng/devices/blackberrystorm> (last visited Mar. 18, 2011).

<sup>100</sup> 35 U.S.C. § 292(a).

<sup>101</sup> *Callaway Golf Patents*, *supra* note 19.

<sup>102</sup> *Id.*

Unlike RIM, however, Callaway had designed a site that likely would have constituted legally sufficient marking under the virtual marking amendment. Rather than merely listing all patent numbers that applied to one or more of its product models, Callaway's site indicated which patent numbers applied to each product model.<sup>103</sup> Clicking on a product such as the FT-*i*Q Driver loaded a page for the FT-*i*Q Driver and FT-*i*Q Tour Driver. A picture of the golf club was followed by a list of patent numbers and the statement that "[t]hese products are covered by one or more of the following U.S. Patents."<sup>104</sup>

The "one or more" language might have proved challenging for Callaway, however. Some courts have held that the "one or more" language is sufficient to comply with traditional marking practices under § 287.<sup>105</sup> The rationale for "one or more" has been the difficulty and expense of adjusting manufacturing practices to stay up to date with changes in applicable patents.<sup>106</sup> However, this justification is not available to a patentee using virtual marking because altering a webpage involves little expense. Even if the site complied with § 287 under the proposed virtual marking amendment recently passed by the Senate and pending in the House, the "one or more" language might have subjected Callaway to false marking liability.

The problem of relying on "one or more" language to avoid false marking liability is further exacerbated by the fact that websites are not subject to the same inherent space limitations as the product itself. If left unchecked, companies could list thousands of patent numbers, as RIM did. Here, Callaway only listed eighty-three patent numbers for the FT-*i*Q Driver,<sup>107</sup> which is still a very large number of patents for the public to tolerate under the "one or more" condition. Therefore, courts may not be as lenient in permitting conditional marking language when virtual marking is an option for patentees.

Additionally, Callaway's site arguably failed the consistent-and-continuous marking requirement<sup>108</sup> because, when the site was online, some

---

<sup>103</sup> Compare *FT-iQ Driver and FT-iQ Tour Driver*, CALLAWAY GOLF, <http://www.callawaygolf.com/Global/en-US/Products/Clubs/Drivers/FT-iQDriver/Patents.html> (last visited Feb. 1, 2010) (image of former website on file with author), with *Patent Information*, *supra* note 19 (listing RIM's patents by country but not by product).

<sup>104</sup> *Callaway Golf Patents*, *supra* note 19.

<sup>105</sup> See, e.g., *Chi. Pneumatic Tool Co. v. Hughes Tool Co.*, 192 F.2d 620, 625–26 (10th Cir. 1951).

<sup>106</sup> *United States v. Gen. Electric Co.*, 82 F. Supp. 753, 817 (D.N.J. 1949) (finding the "one or more" language excusable as a practice commonly used "when multiple patents expiring at different times cover[] several objects"). But see *Pequignot I*, 646 F. Supp. 2d 790, 800 (E.D. Va. 2009) (explaining that using "may be covered" language to mark an unpatented article with the intent to deceive the public is a false marking but finding that Solo did not show the requisite intent to deceive), *aff'd in part, vacated in part*, 608 F.3d 1356 (Fed. Cir. 2010).

<sup>107</sup> See *Callaway Golf Patents*, *supra* note 19.

<sup>108</sup> For an overview of the consistent-and-continuous requirement, see *supra* notes 41–45 and accompanying text. For a discussion of the consistent-and-continuous requirement as it might apply to virtual marking websites, see *infra* Part IV.B.2.

of the webpages for the listed products were down. For example, following the link for the Hyper X Driver returned a 404 (page not found) error page.<sup>109</sup> Callaway's failure to maintain the marking site properly had resulted in this discontinuity. Therefore, a court may have found that Callaway's virtual marking of the Hyper X Driver did not comply with the virtual marking amendment to § 287.<sup>110</sup>

On a positive note, unlike RIM, Callaway's site linked each patent number to a PDF copy of the patent itself. This feature was not required under the recently proposed virtual marking amendment, and it provided no readily identifiable benefit to Callaway. Even so, it represented a great example of using the Internet to convey more information than would otherwise be available under traditional patent marking.<sup>111</sup>

#### IV. VIRTUAL MARKING REALITY

In view of the virtual marking amendment and the examples provided by RIM and Callaway, this Part explores both the virtues and the vices of virtual marking. Specifically, virtual marking enables patentees to convey accurate and timely information to the public about pending patents, expired patents, and patents involved in litigation. On the other hand, patentees could abuse virtual marking by marking with an unreasonable number of patents, keeping poor records of historical changes to the marking site, failing to ensure that their site is available, or violating the privacy of visitors to the site. The following cases and hypothetical scenarios provide guidance for how a proper virtual marking amendment should be structured by Congress and interpreted by the courts.

##### A. Virtues

1. *Pending Patents.*—Because traditional patent marking is closely tied to the manufacturing process, it is challenging for patentees to mark pending patents effectively. Unfortunately, current patent marking law provides no help to patentees seeking to notify potential infringers of a pending patent. By separating marking from manufacturing, virtual marking provides an innovative and effective solution for marking pending patents.

Patent pendency is an extremely relevant issue because it takes an extraordinarily long time to obtain a patent; currently, the U.S. Patent and Trademark Office (USPTO) takes almost three years, on average, to issue a

---

<sup>109</sup> Page Not Found, CALLAWAY GOLF, <http://www.callawaygolf.com/Global/en-US/PageNotFound.html> (last visited Mar. 18, 2011).

<sup>110</sup> See *infra* Part IV.B.2.

<sup>111</sup> For a full discussion of the Internet's potential for the provision of extra patent information, see *infra* Part IV.B.4.

patent.<sup>112</sup> Average pendency has risen steadily over time as the resource-strapped Patent Office has faced an enormous backlog of applications.<sup>113</sup> For economic reasons, the USPTO decreased in size in 2010 and likely will make no progress toward significantly decreasing the backlog in the near future.<sup>114</sup> Yet, manufacturers may release new products while waiting for patents covering those products to issue.<sup>115</sup> In fact, an inventor can still apply for a patent in the United States up to a year after publicly disclosing the invention.<sup>116</sup> Once the patent finally issues, certain rights against infringers extend back in time to the date that the USPTO published the application,<sup>117</sup> typically eighteen months after it was filed.<sup>118</sup>

---

<sup>112</sup> *Patent Pendency Statistics—FY09*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/patents/stats/patentpendency.jsp> (last visited Mar. 18, 2011) (indicating that the total average pendency for patents was 34.6 months in 2009). As of February 2011, the Patents Dashboard showed an average pendency of 34 months. See *Patents Dashboard*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/dashboards/patents/main.dashxml> (last visited Mar. 18, 2011).

<sup>113</sup> Average pendency was only eighteen months in 1991. Gene Quinn, *USPTO Backlog: Patent Pendency out of Control*, IPWATCHDOG (Apr. 22, 2009, 7:43 PM), <http://www.ipwatchdog.com/2009/04/22/uspto-backlog-patent-pendency-out-of-control> (displaying by graph that the average pendency was only eighteen months in 1991 and increased in most years since then); *Patent Inventory Statistics—FY09*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/patents/stats/appbacklog.jsp> (last visited Mar. 18, 2011) (indicating a total backlog of 718,835 applications awaiting first office action by examiner at the end of Fiscal Year 2009).

<sup>114</sup> Phil Hirschhorn & Rebecca Jarvis, *Patent Backlog Frustrates Inventors*, CBS EVENING NEWS (Aug. 8, 2010), <http://www.cbsnews.com/stories/2010/08/08/eveningnews/main6755116.shtml> (quoting USPTO Director David Kappos's need for funding "to hire 1,200 additional patent examiners and upgrade the agency's computer systems" to cut the backlog in half over the next five years). See also David Kappos, Dir., U.S. Pat. & Trademark Off., Remarks to IPO Annual Conference: The USPTO—Early Views and Initiatives of the Obama Administration (Sept. 14, 2009), [http://www.uspto.gov/main/homepagenews/2009sep14\\_kappos\\_ipo\\_speech.htm](http://www.uspto.gov/main/homepagenews/2009sep14_kappos_ipo_speech.htm) ("This means no hiring in 2010, so the size of the agency will decrease. It means no IT improvements, no overtime and probably no progress in cutting into the backlog."). After Kappos's speech in September 2009, the backlog held steady. See *Patent UPR Application Backlog*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/dashboards/patents/kpis/kpiBacklogDrilldown.kpixmap> (last visited Mar. 18, 2011) (showing a slight decrease from 718,835 patents in September 2009 to 708,535 applications in September 2010). 2011 budget cuts requiring a hiring freeze, suspension of overtime, scaled back IT projects, and reduced training indicate that the backlog problem will not be addressed soon. See David Kappos, *An Update on the USPTO's FY 2011 Budget*, U.S. PATENT & TRADEMARK OFFICE (Apr. 22, 2011, 9:08 AM), [http://www.uspto.gov/blog/director/entry/an\\_update\\_on\\_the\\_uspto](http://www.uspto.gov/blog/director/entry/an_update_on_the_uspto).

<sup>115</sup> For industries relying on design patents in particular, the product lifecycle from design and manufacturing to sale to discontinuation is even shorter.

<sup>116</sup> See 35 U.S.C. § 102 (2006) ("A person shall be entitled to a patent unless . . . (b) the invention was . . . in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . .").

<sup>117</sup> See *id.* § 154(d) ("[A] patent shall include the right to obtain a reasonable royalty from any person who [infringes it] during the period beginning on the date of publication of the application for such patent . . .").

<sup>118</sup> *Id.* § 122(b)(1)(A). Subject to certain exceptions, an applicant may request publication earlier than the standard eighteen-month period. *Id.*; see also *id.* § 122(b)(2)(B)(i) (providing an option for applicants to defer publication indefinitely under certain circumstances). Design patent applications are not subject to pre-issue publication. *Id.* § 122(b)(2)(A)(iv).

The relative timing of the patenting and disclosure of a product is primarily a strategic business decision.<sup>119</sup> Often, a manufacturer will want to sell its product before the USPTO issues a patent protecting the product. For example, when Apple announced the first-generation iPhone in January 2007, Chief Executive Officer Steve Jobs exclaimed, “And boy have we patented it!”<sup>120</sup> Jobs claimed that Apple filed over 200 patent applications for inventions embodied within the iPhone prior to disclosing the product.<sup>121</sup> Notably, Apple waited until September 2007 to file an application for what could arguably become the most valuable iPhone-related patent: “Touch Screen Device, Method, and Graphical User Interface for Determining Commands by Applying Heuristics.”<sup>122</sup> By the time this application issued as U.S. Patent No. 7,479,949 on January 20, 2009, Apple had already sold tens of millions of units with no patent marking.<sup>123</sup> In March 2010, Apple sued mobile phone manufacturer High Tech Computer Corporation (HTC), in Delaware and via the International Trade Commission, for infringement of this patent and nineteen others.<sup>124</sup>

---

<sup>119</sup> Many companies, including Apple, Inc., strive to control how and when they disclose their inventions. See, e.g., Brad Stone & Ashlee Vance, *Apple Obsessed with Secrecy on Products and Top Executives*, N.Y. TIMES, June 23, 2009, at B1.

<sup>120</sup> Steven P. Jobs, CEO, Apple, Inc., Keynote Address at MacWorld San Francisco 2007 at 33:52 (Jan. 8, 2007), available at <http://video.google.com/videoplay?docid=3206653149996743169#> (last visited Mar. 18, 2011).

<sup>121</sup> *Id.* at 1:30:28; see also Steve O’Hear, *What If Apple Sued Palm, Would Microsoft Come to the Rescue?*, LAST100 (Jan. 22, 2009), <http://www.last100.com/2009/01/22/what-if-apple-sued-palm-would-microsoft-come-to-the-rescue> (displaying an on-screen image from Jobs’s keynote address indicating that Apple filed over 200 patent applications for inventions in the iPhone).

<sup>122</sup> See U.S. Patent No. 7,479,949 (filed Apr. 11, 2008) (noting that it is a continuation from an application filed September 5, 2007, and that it was issued on January 20, 2009). The 371-page patent application had been dubbed “the iPhone patent.” E.g., Chris Ziegler, *The iPhone Patent: Steven P. Jobs, Inventor*, ENGADGET (May 30, 2008, 3:33 AM), <http://www.engadget.com/2008/05/30/the-iphone-patent-steven-p-jobs-inventor> (emphasis added). But see Nilay Patel, *Apple vs. Palm: The In-Depth Analysis*, ENGADGET (Jan. 28, 2009, 1:28 PM), <http://www.engadget.com/2009/01/28/apple-vs-palm-the-in-depth-analysis> (analyzing the ’949 patent and other iPhone-related patents to show that the patents’ claims are narrower in scope than most journalists have realized).

<sup>123</sup> See Philip Elmer-DeWitt, *iPhone Sales Grew 245% in 2008—Gartner*, APPLE 2.0 (Mar. 12, 2009, 10:18 AM), <http://tech.fortune.cnn.com/2009/03/12/iphone-sales-grew-245-in-2008-gartner>. For reasons known only to Apple insiders, new units sold after this patent issued have not been marked either.

<sup>124</sup> Nilay Patel, *Apple vs. HTC: A Patent Breakdown*, ENGADGET (Mar. 2, 2010, 3:09 PM), <http://www.engadget.com/2010/03/02/apple-vs-htc-a-patent-breakdown>; see *Apple v. High Tech Computer Corp.*, No. 10-544, 2011 WL 143909, at \*2 n.2 (D. Del. Jan. 18, 2011) (listing cases pending in Delaware in which Apple is suing HTC for patent infringement); *Certain Portable Elec. Devices & Related Software*, Inv. No. 337-TA-721 (Pending), <http://info.usitc.gov/ouii/public/337inv.nsf/56ff5fbca63b069e852565460078c0ae/1958d292f645d21285257743004fbc5e?OpenDocument> (tracking status of the International Trade Commission investigation into Apple’s claims of patent infringement); see also Erick Schonfeld, *The Complaint: Apple’s Patent Lawsuit Against HTC Is All About Android*, TECHCRUNCH (Mar. 2, 2010), <http://techcrunch.com/2010/03/02/the-complaint-apples-patent-lawsuit-against-htc-is-all-about-android> (explaining that Apple is targeting HTC because it is one of the largest manufacturers of mobile phones powered by Google, Inc.’s Android mobile operating system).

Infringement liability during the “patent pending” period is a gray area. For a company such as Apple to obtain damages dating from when the application was published, the patent holder must prove that the infringer had “actual notice” of the published application.<sup>125</sup> Yet, marking a product with “patent pending” does not necessarily convey notice because that phrase has no legal effect.<sup>126</sup> Worse for these manufacturers, false use of phrases such as “patent pending” could make them liable for false marking fines.<sup>127</sup> At best, the phrase informally warns potential infringers that a manufacturer is seeking patent protection for its product and might enforce any future rights.

In contrast, virtual marking could provide an effective means of conveying notice about pending patent applications. Imagine if, from day one, Apple had marked the iPhone with a virtual marking URL, which pointed to a site that Apple continuously updated as its pending utility patent applications were published. As a result, potential infringers visiting the site would acquire actual notice of the published applications. If an application eventually resulted in a substantially identical patent, then Apple would have a better chance of recovering reasonable royalty damages for infringement starting from the publication date.<sup>128</sup> Conversely, if Apple abandoned an application or the USPTO denied patent protection, then Apple could immediately remove the application from the product page to avoid potential liability for false marking. With virtual marking, Apple could make any necessary changes in real time without changing the manufacturing process of the physical device.<sup>129</sup>

2. *Expired Patents.*—Compared to trademarks and copyrights, patents have a relatively short shelf life; they are typically valid for twenty years following the application filing date for utility patents and for fourteen years after the filing date for design patents.<sup>130</sup> However, just as manu-

---

<sup>125</sup> 35 U.S.C. § 154(d)(1)(B) (2006). A patent holder must also satisfy other requirements; for example, the claims of the published patent application must be “substantially identical” to the claims of the subsequently issued patent. *Id.* § 154(d)(2).

<sup>126</sup> *General Information Concerning Patents*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/web/offices/pac/doc/general/#marking> (last updated Jan. 2005). Some manufacturers may choose to indicate “patent pending” despite its having no legal effect because they are unaware of the law or believe that it will help ward off potential infringers.

<sup>127</sup> *See* 35 U.S.C. § 292.

<sup>128</sup> Only reasonable royalty damages are available for the time between the USPTO’s publication of a patent application and the issuance of the patent, provided that the resulting patent contains substantially identical claims. 35 U.S.C. § 154(d)(1)–(2).

<sup>129</sup> This would satisfy Senator Leahy’s virtual marking goal of “sav[ing] costs for producers of products that include technology on which a patent issues after the product is on the market.” S. REP. NO. 111-18, at 14 (2009); *see supra* notes 77–78 and accompanying text.

<sup>130</sup> *See* 35 U.S.C. § 154(a)(2) (providing “a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for the patent was filed”); *id.* § 173 (“Patents for designs shall be granted for the term of fourteen years from the date of grant.”). A copyright endures for seventy years following the death of the last surviving author or up to 120 years from the date of cre-

facturers can sell products while applicable patents are still pending,<sup>131</sup> they can also sell products following the expiration of applicable patents. If a manufacturer continues to mark its product with an expired patent number, however, it faces exposure to potential false marking liability.

For example, in *Pequignot v. Solo Cup Co.*, attorney Matthew Pequignot filed a qui tam false marking action against Solo, seeking fines because Solo sold disposable lids marked with an expired patent number.<sup>132</sup> Whether a mark for an expired patent could constitute false marking was an issue of first impression.<sup>133</sup> Furthermore, a lot of money was at stake. Solo had marked billions of lids with numbers for expired patents, and Pequignot argued that each lid constituted a separate offense, punishable by a fine of up to \$500.<sup>134</sup>

The court held that the presumptive intent-to-deceive standard is weakened, though not eliminated, for expired patents because expired patents convey useful information about the product to the public.<sup>135</sup> Additionally, because the public can compute the expiration date of a patent, the court noted that the public could determine whether that patent had entered the public domain.<sup>136</sup> Even though Solo knowingly manufactured lids marked with expired patent numbers, the court found that Solo lacked the requisite intent to deceive because it acted on advice of counsel, seeking to avoid the unreasonably high expense of replacing the molds used for manufacturing the lids.<sup>137</sup>

Although it was not required to reach the issue of how to calculate damages, the district court noted that it would have only counted distinct decisions to mark falsely as separate offenses—not every erroneously marked lid.<sup>138</sup> By that standard, Solo would be liable for at most \$1500

---

ation of an anonymous work or work for hire. 17 U.S.C. § 302(a)–(c) (2006). A trademark can last indefinitely as long as the owner uses it continuously. 15 U.S.C. § 1058(b) (2006).

<sup>131</sup> See *supra* Part IV.A.1.

<sup>132</sup> *Pequignot v. Solo Cup Co. (Pequignot I)*, 646 F. Supp. 2d 790, 792 (E.D. Va. 2009), *aff'd in part, vacated in part*, 608 F.3d 1356 (Fed. Cir. 2010).

<sup>133</sup> *Id.* at 797 (“No court has addressed how the [presumption of intent] standard applies to allegations involving only expired patents. As such, the question of what suffices to prove intent to deceive under such circumstances is one of first impression.”).

<sup>134</sup> *Id.* at 792, 801 (noting that Solo stipulated as to the number of lids manufactured but contended that it should be liable for at most three offenses for three distinct decisions to continue marking lids falsely).

<sup>135</sup> *Id.* at 797–98.

<sup>136</sup> *Id.* at 798. However, it is difficult to calculate a patent’s expiration date. See *infra* note 145.

<sup>137</sup> See *id.* at 798–99 (relaying the opinion of counsel and finding that Solo took reasonable steps to replace the mold cavities over time and did not intend to deceive the public).

<sup>138</sup> *Id.* at 803–04 (“[A]n ‘offense’ under 35 U.S.C. § 292 is a distinct decision by a defendant to falsely mark. Accordingly, even if Solo . . . acted with an intent to deceive, it would be liable for at most three offenses of false marking.” (citing *London v. Everett H. Dunbar Corp.*, 179 F. 506, 508 (1st Cir. 1910))).

(\$500 for each of the three decisions to mark falsely).<sup>139</sup> However, in a more recent case, the Federal Circuit held that the plain meaning of § 292 requires counting each article as a separate offense, which in *Pequignot* would have meant counting each one of the billions of falsely marked lids.<sup>140</sup> To soften the blow to patentees liable for false marking, the Federal Circuit soon after reiterated that the statute establishes a *maximum* fine of \$500 per falsely marked article and clarified that the district courts have discretion to balance enforcing § 292 against imposing disproportionately large fines for mass-produced articles.<sup>141</sup>

As with pending patents, virtual marking could have helped Solo avoid the expired patent issue. If Solo had created molds that read, “Patents: <http://solocup.com/patents/lids>,” it could have updated the site at virtually no cost, and no physical change to the lids or the manufacturing process would have been necessary. If the product page continued to list the patents and clearly noted that they had expired, then virtual marking would achieve the same public benefit that the court identified without raising any concern as to whether it constituted a false mark.

Requiring patentees to change their manufacturing processes to remove web-address marks pointing only to expired patents would unnecessarily entangle the separate patenting and manufacturing processes again. Additionally, the small risk of deception inherent in the mere presence of a patent URL on the product is balanced by the beneficial information obtained from the expired patents,<sup>142</sup> and it is no more detrimental than the current practice of allowing conditional language such as “one or more.”<sup>143</sup> Furthermore, virtual marking confers other useful benefits with respect to patent expiration in particular. The USPTO does not print the expiration date on the face of a patent,<sup>144</sup> and expiration dates are not obvious and not al-

<sup>139</sup> See *id.* at 792, 803–04.

<sup>140</sup> See *Forest Grp., Inc. v. Bon Tool Co. (Forest Group III)*, 590 F.3d 1295, 1301 (Fed. Cir. 2009) (“[T]he statute’s plain language requires the penalty to be imposed on a per article basis.”); see also *infra* Part IV.A.3 (further discussing the *Forest Group* damage calculation).

<sup>141</sup> *Id.* at 1304. Of course, with respect to Solo’s 21 billion lids, the maximum fine would total approximately \$10 trillion. Justin E. Gray & Harold C. Wegner, *The New Patent Marking Police: Answering Clontech and Forest Group*, GRAY ON CLAIMS, 5 (Jan. 8, 2010), <http://www.grayonclaims.com/storage/MarkingPoliceVers4.pdf>. If the fine were set at one-tenth of a penny per lid, the fine would still amount to \$21 million. See *id.* at 6. Solo escaped this staggering liability when the Federal Circuit affirmed that it lacked the requisite intent to deceive the public. See *Pequignot v. Solo Cup Co. (Pequignot II)*, 608 F.3d 1356, 1363 (Fed. Cir. 2010).

<sup>142</sup> See *Pequignot I*, 646 F. Supp. 2d at 797–98.

<sup>143</sup> See *supra* notes 105–06.

<sup>144</sup> See, e.g., U.S. Patent No. 4,589,569 (filed Aug. 22, 1984). This patent for a drinking cup lid was one of the expired patents that Solo had marked on its manufactured lids. *Pequignot I*, 646 F. Supp. 2d at 792. The expiration date is not listed, and at first glance, one might assume that it did not expire until August 24, 2004, twenty years after it was filed. See *id.* The patent actually expired on October 24, 2003, because it was a continuation-in-part of a separate application filed on October 24, 1983. See *id.*; see also 35 U.S.C. § 154(a)(2) (2006) (providing a term for twenty years from the filing date of an earlier filed application, if any).

ways easy to calculate.<sup>145</sup> Also, it could be risky and burdensome to hope that someone will remember to update the mark over a decade later when the patent expires. To avoid becoming liable for false marking as patents gradually expire over time, patentees can insert the expiration dates next to each patent number on their virtual marking sites. Like information about pending applications and lawsuits, expiration dates provide useful information to the public while avoiding any confusion about false marking. Additionally, a clever computer programmer could enable the system running the virtual marking site to *automatically* remove expired listings or generate a statement that a particular patent expired on its date of expiration.

3. *Invalidated Patents.*—A patent issued by the USPTO is presumptively valid.<sup>146</sup> If a patent is never involved in litigation or a reexamination proceeding at the USPTO, then the patent remains valid and enforceable until it expires. If, however, a patent becomes involved in litigation and is invalidated, then it no longer protects any product.<sup>147</sup> A product that is marked with the invalidated patent's number exposes the patentee to false marking liability. Because courts invalidate nearly half of all litigated patents,<sup>148</sup> a solution allowing the holders of invalidated patents to indicate this change instantly would be extremely helpful.

As with expired patents, it is faster and cheaper to remove the invalid patent number from a virtual marking site than to change a manufacturing process. The patentee could update the site on the same day that the unfavorable opinion is released and provide context about the litigation or revert to the previous mark following a successful appeal.

---

<sup>145</sup> See 35 U.S.C. § 154 (providing numerous exceptions and opportunities for adjustment to the standard term of twenty years from the filing date); *Pequignot II*, 608 F.3d at 1362 (“[D]etermining the expiration date of a patent can, at times, be difficult. The date of the patent grant is shown on the first page of a patent, but its term currently also depends on the date it was filed; in 1994, the effective term of a patent changed from seventeen years commencing at issuance to twenty years from filing. Furthermore, the term depends on whether there are patent term adjustments and whether the patent owner has paid maintenance fees. Thus, as with a never-patented article, an article marked with an expired patent number imposes on the public ‘the cost of determining whether the involved patents are valid and enforceable.’” (citations omitted) (quoting *Clontech Labs. Inc. v. Invitrogen Corp.*, 406 F.3d 1347, 1357 n.6 (Fed. Cir. 2005)); see also Dennis Crouch, *Calculating Patent Term*, PATENTLY-O (June 5, 2010, 2:49 PM), <http://www.patentlyo.com/patent/2010/06/calculating-patent-term.html> (listing “at least” seven steps involved in the process for determining whether an issued patent is still in force). *But see Pequignot I*, 646 F. Supp. 2d at 798 (“[A]ny person with basic knowledge of the patent system can look up the patent and determine its expiration date.”).

<sup>146</sup> 35 U.S.C. § 282 (“A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim.”).

<sup>147</sup> More precisely, invalid *claims* can no longer provide protection. If the patent has any remaining valid claims, then a patentee can still sue for infringement of the valid claims. See *id.* § 288.

<sup>148</sup> See Paul M. Janicke & LiLan Ren, *Who Wins Patent Infringement Cases?*, 34 AIPLA Q.J. 1, 5 & n.10 (2006) (“[A]bout 45% of litigated patents are held invalid . . .”).

A more complicated situation arises when a court merely interprets the scope of a valid patent during patent infringement litigation. During claim construction, a process that occurs at a pretrial proceeding called a *Markman* hearing, the judge determines what the language used in the patent claims at issue actually means for the purpose of the litigation.<sup>149</sup> On appeal, the Federal Circuit reviews claim construction without deference to the trial court's opinion.<sup>150</sup> Just as with invalid patents, a patent determined to have narrower scope under a court's unfavorable claim construction, whether at trial or on appeal, exposes the patentee to false marking liability if it marks a now-excluded product with that patent number.

For example, in *Forest Group, Inc. v. Bon Tool Co.*, the Southern District of Texas fined Forest \$500 for selling goods that it had marked with a patent that had received unfavorable claim construction from a court in Minnesota during a prior lawsuit.<sup>151</sup> The patent in question covered stilts used in the construction industry.<sup>152</sup> On February 15, 2007, the Minnesota court issued a claim construction opinion, interpreting the claims in such a way that Forest's patent did not cover either Forest's stilts or the stilts of accused infringer Bon Tool.<sup>153</sup>

The district court in Texas recognized that unfavorable claim construction puts the patentee in a tricky situation.<sup>154</sup> On one hand, the patentee knows it will be engaged in false marking going forward. On the other hand, the unfavorable claim construction stands a reasonable chance of being reversed on appeal,<sup>155</sup> and if the patentee ceases to mark while the ap-

---

<sup>149</sup> *EMI Grp. N. Am., Inc. v. Intel Corp.*, 157 F.3d 887, 891–92 (Fed. Cir. 1998) (“Construction of the claims by the trial court is often conducted upon a preliminary evidentiary hearing, called a *Markman* hearing in homage to the decision [*Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996)] that established that this step must be performed by the judge, not the jury.”).

<sup>150</sup> *Id.* at 891 (“[A]ny disputed questions concerning the meaning and scope of patent claims . . . are treated as questions of law and are determined *de novo* on appeal, without deference to the decision of the trial court.”).

<sup>151</sup> *See Forest Grp., Inc. v. Bon Tool Co. (Forest Group II)*, No. H-05-4127, 2008 WL 4376346, at \*1 (S.D. Tex. Sept. 22, 2008), *aff'd in part, vacated in part*, 590 F.3d 1295 (Fed. Cir. 2009).

<sup>152</sup> *See id.* at \*3–4.

<sup>153</sup> *See Forest Grp., Inc. v. Bon Tool Co. (Forest Group I)*, No. H-05-4127, 2008 WL 2962206, at \*2 (S.D. Tex. July 29, 2008) (“Neither the Bon Tool stilt nor the Forest stilt included a resiliently lined yoke, and neither stilt needed the spring to maintain the vertical supports and the platforms in a ‘parallelogram configuration’” in accordance with the court’s claim construction.), *motion to amend denied*, 2008 WL 4376346, *aff'd in part, vacated in part*, 590 F.3d 1295 (Fed. Cir. 2009).

<sup>154</sup> *Id.* at \*3 (“[D]uring pendency of infringement litigation, the tension between § 292 and § 287(a) may place a patent holder in a precarious position.”).

<sup>155</sup> Based on an empirical analysis performed in 2001, when the Federal Circuit reviews claim construction, it modifies the trial court’s construction almost as often as not, and frequently that modification results in reversal of the trial court’s decision. *See* Christian A. Chu, Note, *Empirical Analysis of the Federal Circuit’s Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1104 (2001) (demonstrating that, in cases that involved a review of claim construction, the Federal Circuit modified the claim construction 44% of the time and, of those cases, reversed on the basis of the modification 68% of the time). In total, the Federal Circuit reverses nearly 30% of cases that involve a review of claim con-

peal is pending, it will fail to satisfy the consistent-and-continuous marking requirement.<sup>156</sup> To ease the burden on patentees, the court held that “a single district court’s adverse claim construction ruling . . . that results in the inference that a patent holder’s product is not covered by the patent in issue should not suffice to establish a § 292 false marking claim.”<sup>157</sup>

In *Forest Group*, however, there was more than a single unfavorable claim construction.<sup>158</sup> The patent was rendered sufficiently narrow such that Forest should have known to stop marking its stilts with that number. Because § 292 provides no definition of “per offense” to calculate damages, the parties disputed the method of counting offenses.<sup>159</sup> The district court counted only the single order that was placed and filled after Forest had knowledge that it was falsely marking under the newly determined scope of its patent and assessed the maximum fine of \$500 for one offense.<sup>160</sup> In its reversing opinion, however, the Federal Circuit ordered the district court to calculate damages per each article sold with the false mark.<sup>161</sup>

Although this outcome was arguably fair, the case might not have been decided correctly. Even if it was reasonable for the Southern District of Texas to create an exception to the false marking statute for interlocutory adverse *Markman* or other rulings in pending lawsuits,<sup>162</sup> the court provided no clear standard for applying the exception. The court did not explain how

struction. *Id.*; see also Ted Sichelman, *Myths of (Un)Certainty at the Federal Circuit*, 43 LOY. L.A. L. REV. 1161, 1175 fig.1, 1184 (2010) (“As such, we should find that the best data available today—which show about a 30 percent reversal rate—raise a substantial cause for concern over the cases that are reversed on claim construction grounds.”).

<sup>156</sup> *Forest Group I*, 2008 WL 2962206, at \*3 (“[I]f a patent holder stops marking its product, even if only temporarily during pendency of a lawsuit after an interlocutory adverse *Markman* or other ruling, in order to avoid potential liability under § 292, the patent holder will have lost the ability to recover damages from infringers—even if the holder ultimately succeeds in establishing the asserted patent covers the patent holder’s product—because its products have not been marked ‘substantially consistently and continuously.’”).

<sup>157</sup> *Id.* at \*4.

<sup>158</sup> See *id.* at \*4 n.4 (“[T]he Court finds that those factors are overcome in this case by the existence of four rulings from two separate federal district courts in this uncomplicated case about a very straightforward patent.”).

<sup>159</sup> See *id.* at \*6 (holding that the \$500 fine was appropriate because Forest made only one decision to mark its stilts after it learned that those stilts may not be covered under the new construction claim ruling); see also *Forest Group II*, No. H-05-4127, 2008 WL 4376346, at \*3 (S.D. Tex. Sept. 22, 2008), *aff’d in part, vacated in part*, 590 F.3d 1295 (Fed. Cir. 2009) (describing the court’s decision to follow First Circuit precedent instead of an unpublished District of Utah case in which the judge appeared motivated by a desire to maximize the penalty to the patentee).

<sup>160</sup> *Forest Group I*, 2008 WL 2962206, at \*6.

<sup>161</sup> *Forest Group III*, 590 F.3d at 1301 (“[T]he statute’s plain language requires the penalty to be imposed on a per article basis.”). On remand, the district court set the fine at \$180 per article, which was the highest price at which Forest Group sold any of the falsely marked stilts. *Forest Grp, Inc. v. Bon Tool Co. (Forest Group IV)*, No. H-05-4127, 2010 WL 1708433, at \*2 (S.D. Tex. Apr. 27, 2010). By using the highest price, the court sought to deprive Forest Group of more than it made in total revenues from the stilts so as to fulfill § 292’s deterrent purpose. *Id.*

<sup>162</sup> See *supra* notes 156–57 and accompanying text.

simple the patent needs to be or how many adverse claim constructions in how many different courts would be sufficient to establish conclusively that any subsequent continued marking constitutes knowing false marking.

Virtual marking presents a unique opportunity to eliminate this arbitrary standard without unfairly burdening the patentee. Virtual marking sites enable patentees to post detailed information about the status of patents and claims involved in pending lawsuits. By simply providing a citation to a claim construction opinion, a diligent patentee can ensure that it complies with the consistent-and-continuous marking standard while eliminating the possibility of deception for purposes of the false marking statute. Therefore, virtual marking relieves the tension between § 287 and § 292 by conveying notice to the public that a patent's viability may temporarily be indeterminate.

4. *Internet Patents.*—While the foregoing sections focused on the virtual marking of tangible products, this section briefly discusses virtual products. Some patents explicitly claim Internet-based technology found in websites, in which case the websites themselves are the products, and they should be marked to avoid a limitation on damages.<sup>163</sup> Other times, where the patent does not explicitly claim a website, but the website is intrinsic to what the patent does claim, such as the means by which a patented database is accessed, the website still should be marked.<sup>164</sup> A number of websites already publish patent information, including Amazon.com (Amazon).<sup>165</sup>

Arguably, virtual marking is less relevant for virtual products such as websites because the marking that occurs is already on a website. It might seem nonsensical for a website to refer to a different virtual marking site. Indeed, virtual marking is far more valuable for low-tech products created from expensive manufacturing processes, as well as high-tech products such as graphing calculators and smartphones that are covered by dozens of patents. Nevertheless, the virtual marking of physical products and the marking of virtual products produce similar results: applicable patent numbers are listed on an easily and cheaply modified website.

---

<sup>163</sup> Eugene Goryunov & Mark Polyakov, *To Mark or Not to Mark: Application of the Patent Marking Statute to Websites and the Internet*, RICH. J.L. & TECH., Fall 2007, at 1, 5 (“The Federal Circuit has not had the opportunity to determine whether a website can constitute a patented article. However, case law indicates that when given the opportunity, the Federal Circuit will likely hold that a website that is expressly claimed in the patent-in-suit constitutes a patented article under the Marking Statute and must be marked to satisfy the constructive notice requirement and not limit the recovery of damages.”).

<sup>164</sup> *Id.* at 12 (“[W]hile the website is not the patented invention, it ‘is *intrinsic to the patented system* and constitutes a tangible item to mark by which notice of the asserted method can be given.’” (quoting *IMX, Inc. v. LendingTree, LLC*, No. 03-1067-SLR, 2005 U.S. Dist. LEXIS 33179, at \*12 (D. Del. Dec. 14, 2005)) (internal quotation marks omitted)).

<sup>165</sup> See *Non-exhaustive List of Applicable Amazon/Affiliate Patents and Applicable Licensed Patents*, AMAZON.COM (“One or more patents owned by Amazon or its affiliates apply to this Site and to the features and services accessible via the Site.”), <http://www.amazon.com/gp/help/customer/display.html/?nodeId=200204190> (last visited Mar. 18, 2011).

Going forward, courts should make every effort to provide uniform virtual marking standards for these two domains of products. The simplest policy would be to require virtual products to use the same virtual marking website system as tangible products. Instead of listing patent numbers directly on Amazon's primary website, Amazon would provide a link to a virtual marking website that lists patent numbers just as a virtual marking website for a smartphone would. Thereafter, any rules established for virtually marking tangible products should also apply to marking virtual products. For example, if a court determines that a virtual marking site must include hyperlinks from patent numbers to the patent documents themselves, then marked websites should be required to comply with that requirement as well.

Without a uniform virtual marking standard for virtual products, marked websites would be free to take advantage of all of the benefits of virtual marking without the various quid pro quos that should be established to prevent abuse of the virtual marking system. For example, nothing would prevent Amazon from listing thousands of patent numbers on its website as RIM did. Nothing would stop Amazon from changing the contents of its virtual marking site without maintaining adequate historical records. Enforcing virtual marking requirements for virtual products would close these marking loopholes that patentees of virtual products could otherwise take advantage of.

### *B. Vices*

This section analyzes the many potential pitfalls for virtual marking that have not yet been addressed by Congress or the courts. To avoid these pitfalls and to optimize the benefits of virtual marking, Congress should create a public virtual marking product registry or set forth guidelines to ensure proper design and maintenance of patentees' or third parties' virtual marking sites. The public virtual marking product registry could enforce a number of requirements to ensure that patentees comply with the spirit of patent marking law.

This section discusses several desirable features in a public registry: (1) limiting patent marks to a reasonable number of patents, (2) reconciling technical difficulties with the consistent-and-continuous marking requirement, (3) guaranteeing that marking websites remain accessible to members of the public while protecting their privacy, and (4) disseminating additional information to the public where a patentee would not otherwise have an incentive to do so itself.

*1. Virtual Infinity.*—Limiting product pages to a reasonable number of patent marks or requiring patentees to highlight the most critical and valuable patents would reduce the risk that patentees would abuse the notice provisions of the marking statute. Allowing patentees to list thousands of patent numbers with no guidance for the public does not provide adequate

notice. Yet the virtual marking amendment does not limit the number of patents permitted on a virtual marking site.<sup>166</sup> Granted, there is no official limit on the number of patents that patentees can list under traditional marking law,<sup>167</sup> but there is a de facto limit due to space constraints on the physical product.

Consider the TI-83 Plus.<sup>168</sup> Even though TI owned at least seven patents—and perhaps hundreds—covering the complex electronic calculator,<sup>169</sup> due to space limitations, TI chose to mark the device with only three patent numbers.<sup>170</sup> Patentees currently face practical limits dictated by the space available on physical products, whereas a website has theoretically limitless length. Courts have not yet considered how many patent listings on a product can reasonably convey notice under either traditional or virtual marking, and the virtual marking amendment provides no further guidance.<sup>171</sup>

Congress could address this issue in two ways. First, it could modify the virtual marking amendment to provide a limit to the number of valid patents that can be listed for a single product. Alternatively, Congress could authorize a public virtual marking product registry, which could enforce a reasonable limit by preventing patentees from adding more than a predetermined number of marks to a product page. Although any limit that Congress imposed would be arbitrary, Congress must choose some reasonable limit to avoid undue hardship to the public. Only marks referring to valid, enforceable patents should count toward this limit so that patentees will not be dissuaded from providing the public with helpful information about expired or otherwise unenforceable patents.

2. *Consistent-and-Continuous Uptime.*—Another major concern for virtual marking is the well-established consistent-and-continuous standard for compliance with the marking statute.<sup>172</sup> Websites are inherently unstable. If a patentee's server experiences downtime or the site has been hacked

---

<sup>166</sup> See H.R. 1249, 112th Cong. § 15(a)(1) (as reported by H. Comm. on the Judiciary, Apr. 14, 2011) (requiring association with “the number of the patent”); S. 23, 112th Cong. § 4(b) (as passed by Senate, Mar. 8, 2011) (same). However, the amendment appears to permit association with an unlimited number of patents.

<sup>167</sup> See 35 U.S.C. § 287(a) (2006) (containing no language limiting the number of patents that can be marked on a product).

<sup>168</sup> See *supra* notes 4, 7 and accompanying text.

<sup>169</sup> For example, a search for (TI-83\$ and an/"Texas Instruments") on the USPTO website provides seven results, and a search for (calculator\$ and an/"Texas Instruments") provides over six hundred results. USPTO FULL-TEXT AND IMAGE DATABASE, <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> (last visited Mar. 18, 2011) (results obtained using Advanced Search function). Note that “\$” is a root expander, and “an/” is a search field that limits results to those patents that were initially assigned to a particular assignee, here “Texas Instruments.”

<sup>170</sup> See *supra* notes 4, 7 and accompanying text.

<sup>171</sup> See H.R. 1249 § 15(a)(1); S. 23 § 4(b).

<sup>172</sup> See *supra* notes 41–45, 108 and accompanying text.

when a member of the public attempts to view it, that could be a violation of the “continuous” element of the compliance standard. Callaway’s virtual marking site exemplified this potential problem as it included several broken links to product pages. A certain amount of downtime may be acceptable. If Congress authorized a public virtual marking registry, then any discontinuity due to downtime that occurred on the public server could be excusable. Alternatively, courts might be lenient with a patentee that exercises reasonable due diligence to return its private marking site to a functioning state.

Modification of the data posted on marking sites raises additional questions. One issue is how much modification, in form or content, is permissible under the “consistent” element of the compliance standard. To get the maximum benefit from virtual marking, patentees should be permitted to modify their sites liberally. However, patentees should also be required to keep records of all past revisions as evidence of the contents on a particular date or range of dates. Again, a public registry could most readily enforce this requirement by managing revisions itself, storing records of past revisions, and imposing certain limits on the degree or frequency of modifications to ensure that consistency is maintained.

A related issue is whether members of the public should be allowed to view the past revisions, as opposed to being limited to viewing only the current version of the page at the time and date when they visit it. Any virtual marking website should include a notification system that alerts members of the public who subscribe to it that a particular page has been updated. A public registry would ensure consistency in the structure and appearance of product pages and also guarantee that records of past revisions were available as required by law.

3. *Privacy and Accessibility.*—Virtual marking, unlike traditional marking, also raises privacy concerns. Website operators can log extensive analytics about visitors to the site,<sup>173</sup> including the Internet Protocol (IP) address and physical location of a visitor, the length of time a visitor views a page, and the specific parts of the page the visitor clicks on. If patentees recorded this information, the public might be discouraged from looking up the patents covering the product, which would defeat the purpose of the marking statute. Thus, to protect the public’s privacy, patentees should not be permitted to record this information or to use this information in court as evidence of actual notice. Again, a public registry avoids these issues because it can enforce a strict privacy policy for the entire site, logging only what information is necessary to comply with the law. Alternatively, Congress could modify the virtual marking amendment to call for explicit privacy guidelines.

---

<sup>173</sup> See, e.g., GOOGLE ANALYTICS, <http://www.google.com/analytics> (last visited Mar. 18, 2011) (providing free “[e]nterprise-class web analytics” to website operators).

Accessibility is another issue; the current amendment specifies that any valid virtual marking site must be “accessible to the public without charge for accessing the address.”<sup>174</sup> However, even many free websites still require registration. A strict reading of the amendment suggests that patentees would be permitted to require members of the public to register for free before gaining access to the site. There is no theoretical limit to the kind and quantity of information that patentees would be able to collect in exchange for viewing their “free” marking site, such as individual names, company names, mailing and e-mail addresses, phone numbers, birthdays, and attorney bar registration numbers. Congress should set limits on what information may be collected and adopt a privacy standard for collected information. In addition, it should prohibit patentees from using this information for marketing purposes, selling it to third parties, or submitting information linked to an alleged infringer’s account as evidence in court.

Congress should modify the virtual marking amendment to mandate that any valid virtual marking site be accessible to the public not only without charge but also without any other barriers, restrictions, or privacy incursions for accessing the address. An authorized public registry would provide a convenient enforcement mechanism.

4. *Additional Data Requirements.*—A major benefit of virtual marking sites is that they allow patentees to post a variety of patent-related information inexpensively. To maximize the benefit of virtual marking, sites should list all relevant information, such as published patent applications, expiration dates for current patents, and data about pending litigation. To minimize expense and unnecessary disclosure to the public, however, most patentees are likely to fulfill only the minimum duties required by law.<sup>175</sup> Callaway’s site provided hyperlinks to each patent document, but RIM’s did nothing but list thousands of patent numbers by country.<sup>176</sup> The usefulness of RIM’s site was worse than if RIM had marked its BlackBerry with a few select applicable patent numbers instead. For this reason, the virtual marking amendment should include specific requirements and guidelines for site content and organization.

A public registry could readily enforce standards for additional information. For example, patentees could be required to provide the expiration date for any patent listed, and the public registry could update the site automatically as those patents expire. If a court invalidates the claim of a patent, the patentee could be required to update the public registry and remove the patent number or disclaim those individual claims on the product page itself within a specific time period. Congress should also modify the virtual marking amendment to ensure that any public or private virtual marking site

---

<sup>174</sup> H.R. 1249 § 15(a)(1); S. 23 § 4(b).

<sup>175</sup> Callaway Golf appeared to be an exception to the rule by providing additional features such as hyperlinked patent numbers. *See supra* Part III.B.

<sup>176</sup> *See supra* text accompanying note 93.

would be required to facilitate the retrieval of information by creating hyperlinks from patent numbers to the patent itself, as Callaway did, or by providing search functionality that searches only within the patents listed.

## V. IMPLEMENTATION AND ENFORCEMENT

The virtual marking amendment is a step in the right direction, but it still will lead to a host of new patent marking problems if it is enacted. Ultimately, for every benefit to be realized through virtual marking, there is at least one potential pitfall that must be addressed. This Part proposes modifications to the amendment to address these issues, along with a summary of how best to implement the amendment based on the preceding discussion.

### *A. Amending the Amendment*

The current amendment would only insert the following text into the marking statute: “or by fixing thereon the word ‘patent’ or the abbreviation ‘pat.’ together with an address of a posting on the Internet, accessible to the public without charge for accessing the address, that associates the patented article with the number of the patent . . . .”<sup>177</sup> Congress should modify the amendment to include the following additional provisions: (1) the Internet posting shall be restricted to a reasonable number of patent numbers, (2) the Internet host shall take reasonable measures to guarantee reasonable uptime for the posting, (3) the Internet host shall maintain accurate records of all revisions to the posting, and (4) the Internet host shall not collect information about the public for accessing the address.

### *B. Leveling the Playing Field*

The current virtual marking amendment would eliminate much of the frustration to manufacturers by disentangling the patent process from the manufacturing process. From the manufacturer’s standpoint, it is truly a “set-it-and-forget-it” solution. The manufacturer need only label a product with a single, persistent URL, and it will never have to change the URL over the lifetime of the production cycle.

Yet the currently sparse amendment would open too wide a frontier for patentees. It lacks incentives to ensure that the public also reaps the benefits of the new marking system. In fact, it exposes the public to new dangers that do not exist today due to the practical limitations of marking tangible products. The modified amendment proposed in this Comment provides several statutory guarantees to protect the public. The four proposed provisions are not exhaustive, but they represent a good starting point to ensure that when virtual marking becomes a reality, the public will stand to benefit as much as the patentees.

---

<sup>177</sup> H.R. 1249 § 15(a)(1); S. 23 § 4(b).

*C. Alternatives to a Public Registry*

A public virtual marking site, a product registry of sorts maintained by the USPTO, would eliminate most of the potential problems, but it comes at a high cost. Creating and maintaining the website would be expensive for taxpayers, and it would have to be authorized by a statute far more complex than even the modified virtual marking amendment in this proposal. Congress, the USPTO, and the courts would need to juggle the creation, implementation, and enforcement of all the various standards and requirements necessary for the site to function properly. If running a public registry proves too much for the government to handle for the sake of modernizing patent marking, then Congress should consider the following potential alternatives.

The simplest option would be to permit patentees to maintain their own private virtual marking sites, just as RIM and Callaway Golf once did. The additional provisions mandated in the amendment proposed here mitigate some of the potential harm to the public due to the lack of incentives in an open-ended virtual marking system like the one that was suggested by the recently proposed amendment. Although this option is the easiest and most cost-effective for the government in the short term, there are two main disadvantages. First, the public will need to trust patentees to comply with the statute and rely on courts to enforce the statute when they do not. Second, if the provisions are too stringent and too inconvenient for patentees, the potential liability and expense will outweigh the benefits of virtual marking. If patentees refuse to transition to virtual marking, then the amendment will have no remedial effect on the shortcomings of traditional marking law.

A better alternative to a public registry maintained by the government would be to authorize one or more private companies to maintain registries on behalf of the government. This exact scenario is taking place in the telecommunications industry. The Federal Communications Commission (FCC) granted permission to Google and several other companies to manage authorized databases of “white space” in the radio frequency spectrum,<sup>178</sup> which will alleviate the expense for the FCC to run the database itself. Moreover, even in the absence of a virtual marking amendment, Ocean Tomo’s patent marking website suggests that there is a private commercial market for creating these kinds of registries for the benefit of patentees willing to pay for the convenience.<sup>179</sup> By requiring authorization,

---

<sup>178</sup> Unlicensed Operation in the TV Broad. Bands, Nos. 04-186 & 02-380, DA 11-31 (FCC Jan. 26, 2011) (FCC Daily Digest), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-11-131A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-11-131A1.pdf); Elizabeth Woyke, *FCC Appoints Google as “White Space” Administrator*, FORBES (Jan. 26, 2011), <http://blogs.forbes.com/elizabethwoyke/2011/01/26/fcc-appoints-google-as-white-space-administrator>; see also Richard Whitt, *Our Proposal to Build and Operate a White Spaces Database*, GOOGLE PUB. POL’Y BLOG (Jan. 4, 2010, 7:35 PM), <http://googlepublicpolicy.blogspot.com/2010/01/our-proposal-to-build-and-operate-white.html>.

<sup>179</sup> In fact, Ocean Tomo now provides accounts and unique URLs that patentees can use to provide virtual patent marking information—one indication that a centralized database has a place in virtual

Congress stands a better chance of regulating the private virtual marking industry while avoiding the expense and effort required to maintain its own site. The major pitfall of this alternative would be the need to ensure that the authorized websites are adequately remunerated without disadvantaging small entities such as startups and private inventors.

#### CONCLUSION

Ultimately, the standards that develop for virtual marking, whether for private or public sites, must effectively balance the needs of patentees and the public. The standards must ensure that information is provided such that the policy needs that motivated the original marking statutes are satisfied. Virtual marking should benefit both the public and patentees, but the standards must not be too burdensome. If the rules are too complex or costly, then patentees will avoid virtual marking unless the law requires it. In the absence of mandatory virtual marking, courts must enforce the marking statute consistently for both traditional and virtual patent marking. Instead of showing leniency to patentees facing charges of false marking due to the high cost of changing manufacturing practices, courts must hold the patentees accountable for false marking that could have been avoided through virtual marking.

Relying on the patentees themselves to implement effective virtual marking would be detrimental to the public. The most effective way to guarantee the success of virtual marking is through the creation of a public virtual marking product registry. Otherwise, if the registry proves too costly, the best compromise that would likely still balance the needs of patentees with those of the public would be for Congress to authorize independent, third-party companies to host private virtual-marking product registries. The registries must be operated in accordance with the standards mandated by the modified virtual marking amendment.

---

marking. See OCEAN TOMO PATENTMARKING, <http://www.patentmarking.com/patentmarking> (last visited Mar. 18, 2011); see also *supra* note 21.