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# A General Rule of Law is Needed to Define Public Use in Patent Cases\*

BY KATHERINE E. WHITE\*\*

## INTRODUCTION

All law needs certainty and predictability in order to provide the public with proper notice and define the boundaries of legally permissible conduct. This is especially true in patent cases where a significant property interest is at stake. Consistency in judicial decisionmaking is critical in advancing public confidence in the rule of law. In order to achieve consistency, similarly situated cases should enjoy comparable outcomes. Such an approach evinces the appearance of equal treatment further promoting a sense of justice.

However, the Court of Appeals for the Federal Circuit, which is the typical path of appeals for patent cases<sup>1</sup> has moved away from rendering this type of consistency in interpreting 35 U.S.C. § 102(b)<sup>2</sup> in public use and on sale bar cases.<sup>3</sup> Historically, the Supreme Court devoted attention to the underlying policies regarding the public use and on sale bars in

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<sup>1</sup> See 28 U.S.C. § 1295(a) (1994).

<sup>2</sup> 35 U.S.C. § 102(b) (1994).

<sup>3</sup> See *infra* Part III.

§ 102(b). Adhering to the purposes behind the bars, the Supreme Court maintained two lines of analysis consistent with the statutory division between the public use and on sale bars.<sup>4</sup> The Federal Circuit, however, has moved away from that approach. Instead, the Federal Circuit has developed a “totality of the circumstances” approach in its analysis. Although striving to be sensitive to the equities in each case, this totality approach has led to a blurring of the public use and on sale issues. This methodology has failed to consistently elucidate the policies behind the public use and on sale bars. Consequently, this approach has left too much room for judicial discretion that could lead to inconsistent and unpredictable decisions.

Recently, in *Pfaff v. Wells Electronics, Inc.*,<sup>5</sup> the Supreme Court rejected the totality of the circumstances test in on sale cases, moving towards a more rule-based approach in its analysis. In doing so, the Court replaced the totality of the circumstances test with a more concrete general rule of law in an attempt to create greater predictability in resolving when a sale has transpired.<sup>6</sup> This approach resonates with the concepts articulated in Justice Antonin Scalia’s essay, *The Rule of Law as a Law of Rules*.<sup>7</sup> In this essay, Justice Scalia criticizes using the totality of the circumstances test too readily as a mechanism for finding justice. He explores the “dichotomy between the ‘general rule of law’ and the ‘personal discretion to do justice.’”<sup>8</sup> Giving judges the personal discretion to do justice often appears to create flexibility in a statutory framework that seems too rigid to dispense justice. Scalia, however, notes that “judicial decisions should not be overrated.”<sup>9</sup> There are competing values in finding the “perfect” answer, one of which “is the appearance of equal treatment.”<sup>10</sup>

In *Pfaff*, the Supreme Court removed the totality of the circumstances test in on sale bar cases. This shift, however, does not address the remaining and more difficult public use strand of § 102(b).<sup>11</sup> This Article proposes an extension of the *Pfaff* approach and a specific rule that reinvigorates the historic distinction between public use and on sale issues,

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<sup>4</sup> See *infra* Part II.

<sup>5</sup> *Pfaff v. Wells Elecs., Inc.*, 119 S. Ct. 304 (1998).

<sup>6</sup> See *id.* at 311-12.

<sup>7</sup> Antonin Scalia, *The Rule of Law as a Law of Rules*, 56 U. CHI. L. REV. 1175 (1989). “This essay was first delivered as the Oliver Wendell Homes, Jr. Lecture at Harvard University on February 14, 1989.” *Id.*

<sup>8</sup> *Id.* at 1176.

<sup>9</sup> *Id.* at 1178.

<sup>10</sup> *Id.*

<sup>11</sup> 35 U.S.C. § 102(b) (1994).

consequently enabling cases to be decided more predictably. After reviewing the early Supreme Court cases and policies, as well as the Federal Circuit cases, this Article will conclude that, after *Pfaff*, a general rule of law is needed to determine public use in patent cases.<sup>12</sup>

Part I of this Article gives a general overview of the pertinent precepts of patent law and theory. Part II recounts the Supreme Court's historical treatment of the public use and on sale bars, pointing out that, in its legal analysis, the Supreme Court has consistently applied the primary policies underlying the bars. Part III presents a general overview of the Federal Circuit's application of the totality of the circumstances test in both public use and on sale cases. Part IV discusses the limitations of a policy approach to legal analysis using the totality of the circumstances test in public use and on sale cases. Part V proposes a general rule of law test to determine whether there has been a public use. The proposed test incorporates the policies underlying the public use and on sale bars as well as the analytical framework of the Supreme Court's early cases. Part VI examines the Federal Circuit cases and compares that court's analysis with the legal approach used when applying the proposed test. Some cases may have been decided the same way, but different questions would have been asked. Some cases would have been decided differently if the court had adhered to the policies underlying the bars as well as the analytical framework of the Supreme Court's early cases. Part VII is the conclusion.

## I. GENERAL OVERVIEW

The United States Constitution grants Congress the power “[t]o promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”<sup>13</sup> This clause “reflects a balance between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the ‘Progress of Science and useful Arts.’”<sup>14</sup> In accordance with this clause of the Constitution, “Congress may not create patent monopolies of unlimited duration, nor may it ‘authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free

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<sup>12</sup> See *infra* Part VII.

<sup>13</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>14</sup> *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989).

access to materials already available.’”<sup>15</sup> “[T]he ultimate goal of the patent system is to bring new designs and technologies into the public domain through disclosure.”<sup>16</sup> “[A]fter the expiration of a federal patent, the subject matter of the patent passes to the free use of the public as a matter of federal law.”<sup>17</sup>

The patent grant awards an inventor a right to exclude others from practicing the invention for a limited time in exchange for public disclosure of the invention. Consistent with these principles, 35 U.S.C. § 102(b) bars a person from acquiring a patent if the invention sought to be patented has been “patented or described in a printed publication in this or a foreign country or 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>18</sup> These prohibitions are called the public use and on sale bars, respectively. Although the public use and on sale bars share the same statutory basis in § 102(b), they have different policy emphases.<sup>19</sup>

In analyzing Supreme Court case law, it is apparent that the public use bar has two primary policy interests: (1) forfeiture or dedication of the invention to the public; and (2) detrimental reliance.<sup>20</sup> The public use bar

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<sup>15</sup> *Id.* (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966)); *see also* *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 23 (1829) (“If the public were already in possession and common use of an invention fairly and without fraud, there might be sound reason for presuming, that the legislature did not intend to grant an exclusive right to any one to monopolize that which was already common.”).

<sup>16</sup> *Bonito Boats*, 489 U.S. at 151.

<sup>17</sup> *Id.* at 152 (“[P]laintiffs’ right to the use of the embossed periphery expired with their patent, and the public had the same right to make use of it as if it had never been patented.” (quoting *Coats v. Merrick Thread Co.*, 149 U.S. 562, 572 (1893))).

<sup>18</sup> 35 U.S.C. § 102(b) (1994).

<sup>19</sup> *See* *Continental Plastic Containers v. Owens Brockway Plastic Prods., Inc.*, 141 F.3d 1073, 1079 (Fed. Cir. 1998).

<sup>20</sup> Express abandonment is another way in which an inventor can lose patent rights. Express abandonment, however, is primarily addressed under § 102(c), which states: “[a] person shall be entitled to a patent unless . . . he has abandoned the invention.” 35 U.S.C. § 102(c) (1994). Another incidence of abandonment is addressed in § 102(g). It reads, in pertinent part: “[a] person shall be entitled to a patent unless . . . before the applicant’s invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it.” *Id.* § 102(g). This relates to the concept of “spurring.” Spurring is when an inventor keeps the invention secret and only files when competitors begin to make the invention. When the inventor has realized the value of the invention, the inventor

prohibits the patenting of an invention if an inventor has forfeited or dedicated the invention to the public, or the public has detrimentally relied on the invention as part of the public domain. If the inventor has forfeited or dedicated the invention to the public, the inventor may not remove the invention from the public and obtain a patent over the invention. If the public has detrimentally relied on the public nature of the invention, it should not be extracted from the public domain.

In contrast, the on sale bar is to prevent an inventor from extending the patent monopoly beyond the statutorily prescribed time period, twenty years from the date of filing for the patent plus one year.<sup>21</sup> This one-year period is called a grace period, which permits an inventor time to decide whether or not to file a patent application.<sup>22</sup> Another purpose of the one-

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is spurred into filing. Section 102(g) prohibits granting a patent to an inventor who abandons, suppresses, or conceals an invention. *See id.*

<sup>21</sup> *See Continental Plastic*, 141 F.3d at 1079 (“The primary policy underlying the ‘public use’ case is that of detrimental public reliance, whereas the primary policy underlying an ‘on-sale’ case is that of prohibiting the commercial exploitation of the design beyond the statutorily prescribed time period.”).

<sup>22</sup> Because filing for a patent can be incredibly expensive, the one-year grace period allows the inventor to determine whether or not filing will be worth the time, expense, and effort. Although the grace period works against the concept of publicly disclosed inventions becoming public property immediately upon disclosure, it is a compromise giving the inventor time to decide whether or not to file a patent application. The first patent act, passed in 1790, did not include a grace period. Congress authorized granting a patent to anyone who invented something not before known or used. *See Patent Act of 1790*, ch. 7, § 1, 1 Stat. 109, 109. In 1836, Congress passed another patent act that enacted the on sale and public use bar provisions. *See Patent Act of 1836*, ch. 357, § 6, 5 Stat. 117, 119. This Act provided, in pertinent part:

[A.]ny person or persons having discovered or invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used by others before his or their discovery or invention thereof, and not, at the time of his application for a patent, in public use or on sale, with his consent or allowance, as the inventor or discoverer; and shall desire to obtain an exclusive property therein, may make application in writing to the Commissioner of Patents, expressing such desire, and the Commissioner, on due proceedings had, may grant a patent therefor.

*Id.* The 1836 Act did not provide a grace period. Thus, the inventor had to file an application before putting the invention in public use or on sale. In 1839, Congress enacted a two-year grace period allowing inventors two years to apply for a patent after having placed the invention in public use or on sale. This two-year grace

year limit is to give inventors an incentive to file their patent applications within one year of making their inventions public. In order to encourage prompt filing in the Patent Office, § 102(b) creates a statutory period in which a patent must be filed. This is necessary because, unlike most countries, the United States awards patents to the first-to-invent, and not the first-to-file the patent application.<sup>23</sup> Section 102(b) is an unnecessary provision in first-to-file systems because the first filer has priority of invention, regardless of who invented first.<sup>24</sup>

The public use and on sale bars to patentability preclude an inventor from obtaining a patent in the United States if the invention is in public use or on sale in the United States more than one year before the application for patent.<sup>25</sup> Thus, the "critical date" is one year prior to filing an application for patent.<sup>26</sup> Because an affirmative finding that an invention is subject to

period was reduced to one year in 1939. *See* Act of Aug. 5, 1939, ch. 450, § 1, 53 Stat. 1212, 1212; S. REP. NO. 76-876, at 1-3 (1939). Currently, the grace period is one year. *See* 35 U.S.C. § 102(b) (1994).

<sup>23</sup> In the United States, the original inventor may not always be the inventor that is given priority under the first-to-invent system. If an original inventor abandons, suppresses, or conceals his invention, he or she will lose priority of invention. *See* 35 U.S.C. § 102(g) (1994); *see also* *Gayler v. Wilder*, 51 U.S. (10 How.) 477, 497 (1850).

It is well known that centuries ago discoveries were made in certain arts the fruits of which have come down to us, but the means by which the work was accomplished are at this day unknown. The knowledge has been lost for ages. Yet it would hardly be doubted, if any one now discovered an art thus lost, and it was a useful improvement, that, upon a fair construction of the act of Congress, he would be entitled to a patent. Yet he would not literally be the first and original inventor. But he would be the first to confer the public the benefit of the invention. He would discover what is unknown, and communicate knowledge which the public had not the means of obtaining without his invention.

*Id.*

<sup>24</sup> *See* 35 U.S.C. § 154(a)(2) (1994).

<sup>25</sup> *See id.* § 102(b).

A person shall be entitled to a patent unless—

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(b) the invention was patented or described in a printed publication in this or a foreign country or 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.

...

*Id.*

<sup>26</sup> "Critical date" is a term of art defined as the date one year prior to filing the patent application. If a public use or sale takes place prior to the critical date, this

a public use or on sale bar eliminates patent rights, a court's application of the legal test to make such a determination has caused significant controversy.

In recent times, "totality of the circumstances" surrounding the use or sale is the test used to evaluate public use and on sale bar issues.<sup>27</sup> This test has been criticized as being unnecessarily vague.<sup>28</sup> As applied, this test is problematic because it does not require that the primary policies underlying the public use and on sale bars be subsumed into the test (e.g., dedication to the public, detrimental public reliance, and prohibiting commercial exploitation of the invention beyond the statutorily prescribed period).<sup>29</sup> In looking at the totality of the circumstances, the courts are not required to treat the public use and on sale bars as serving distinct and clear purposes. Because a more rule-oriented approach in analyzing these issues has not been used, their distinct and separate purposes have been overlooked.

The Federal Circuit has adopted the following underlying policies in applying the totality of the circumstances test: (1) discouraging the removal, from the public domain, of inventions that the public reasonably has "come to believe are freely available; . . . [(2)] 'favoring the prompt and widespread disclosure of new inventions;'"<sup>30</sup> (3) allowing the inventor a reasonable amount of time following sales activity to determine the potential economic value of a patent; and (4) prohibiting the inventor from commercially exploiting the invention for a period greater than the statutorily prescribed time.<sup>31</sup>

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is a violation of § 102(b) and patenting of the invention is prohibited. *See Petrolite Corp. v. Baker Hughes, Inc.*, 96 F.3d 1423, 1425 (Fed. Cir. 1996).

<sup>27</sup> *See id.* ("This court has emphasized that the totality of the circumstances must be considered in determining whether a particular event creates an on-sale or public use bar.") (citations omitted).

<sup>28</sup> *See Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1323 n.2 (Fed. Cir. 1996); *see also Weatherchem Corp. v. J.L. Clark, Inc.*, 163 F.3d 1326, 1333 (Fed. Cir. 1998) (stating that "[t]he Supreme Court also observed that the Patent Act's on-sale and public use provisions strive to provide 'inventors with a definite standard for determining when a patent application must be filed'") (quoting *Pfaff v. Wells Elecs., Inc.*, 119 S. Ct. 304, 311 (1998)).

<sup>29</sup> *See Continental Plastic Containers v. Owens Brockway Plastic Prods., Inc.*, 141 F.3d 1073, 1079 (Fed. Cir. 1998).

<sup>30</sup> *General Elec. Co. v. United States*, 654 F.2d 55, 61 (Ct. Cl. 1981).

<sup>31</sup> *See id.* (citing Patrick J. Barrett, Note, *New Guidelines for Applying the On Sale Bar to Patentability*, 24 STAN. L. REV. 730, 732-35 (1972)); *see also In re Caveney*, 761 F.2d 671, 676 (Fed. Cir. 1985); *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 860 (Fed. Cir. 1985); *see also Thomas K. Landry, Certainty*



“To give effect to the underlying policies, the court will want to consider the totality of circumstances relating to the character and extent of commercial activities, the type of invention and its stage of development . . . along with the character and extent of bona fide experimentation.”<sup>32</sup> These underlying policies appear to consider the primary policies of the public use and on sale bars. However, because these policies are not explicitly part of a legal rule, the public use and on sale bars are not evaluated as distinct and separate issues.<sup>33</sup> This policy approach has caused uncertainty as to when the statutory bar clock begins to run, especially in on sale bar cases.

The totality of the circumstances test for on sale bar analysis does not clearly define when a sale or offer for sale has transpired. The purpose of the on sale bar is to prevent inventors from extending their monopoly period beyond the statutory term.<sup>34</sup> In order to start the one-year statutory bar clock running, it is necessary to determine the timing of when a sale has occurred. The Federal Circuit has rejected the idea that a physical embodiment of an invention is required in determining whether or not a sale has taken place.<sup>35</sup> This is troublesome because it is unclear how an invention can be on sale or offered for sale if it has not been reduced to practice.<sup>36</sup> In other words, how can an invention be sold or offered for sale if there is no physical embodiment of the invention? Difficulty in determining when a sale has occurred contributes to the totality of the circumstances test for on sale bar cases being unnecessarily vague.<sup>37</sup>

*Pfaff v. Wells Electronics, Inc.*<sup>38</sup> illustrates the uncertainty caused by the totality of the circumstances test in determining whether a sale has transpired. In this case, Texas Instruments’ (“TI”) representatives

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*and Discretion in Patent Law: The On Sale Bar, The Doctrine of Equivalents, and Judicial Power in the Federal Circuit*, 67 S. CAL. L. REV. 1151, 1163-69 (1994) (arguing that Barrett did not intend the underlying policies he articulated in his student note to become a judicially-created test).

<sup>32</sup> *Western Marine Elecs., Inc. v. Furuno Elec. Co.*, 764 F.2d 840, 845 (Fed. Cir. 1985).

<sup>33</sup> See *Landry*, *supra* note 31, at 1172.

<sup>34</sup> See *Continental Plastic*, 141 F.3d at 1079.

<sup>35</sup> See *UMC Elecs. Co. v. United States*, 816 F.2d 647, 652 (Fed. Cir. 1987).

<sup>36</sup> See *id.* (defining reduction to practice to mean that there must be “a physical embodiment [of the invention] which includes all limitations of the claim”).

<sup>37</sup> See *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1323 n.2 (Fed. Cir. 1996).

<sup>38</sup> *Pfaff v. Wells Elecs., Inc.*, 124 F.3d 1429 (Fed. Cir. 1997), *aff’d*, 119 S. Ct. 304 (1998).

approached Mr. Pfaff (“Pfaff”) to invent sockets for testing leadless chip carriers. More than one year before he filed a patent application, Pfaff showed a sketch of his concept to TI’s representatives. Before the critical date, TI sent Pfaff a written confirmation of a previously placed oral purchase order for 30,100 new sockets. “In accord with his normal practice, Pfaff did not make and test a prototype of the new device before offering to sell it in commercial quantities.”<sup>39</sup> The trial court held that because there was no physical embodiment of the invention before the critical date, there was no on sale bar, despite the commercialization before the critical date. The Federal Circuit reversed, holding that a physical embodiment is not required to trigger an on sale bar. “Accordingly, the appropriate question is whether the invention was substantially complete at the time of sale such that there was ‘reason to expect that it would work for its intended purpose upon completion.’”<sup>40</sup> The Supreme Court granted certiorari “to determine whether the commercial marketing of a newly invented product may mark the beginning of the 1-year period even though the invention has not yet been reduced to practice.”<sup>41</sup>

In *Pfaff v. Wells Electronics, Inc.*,<sup>42</sup> the Supreme Court eliminated the totality of the circumstances test from the on sale bar analysis. In doing so, the Court replaced this test with a general rule of law to create more predictability in resolving when a sale has transpired.<sup>43</sup> The *Pfaff* test has two prongs for determining when a sale has occurred: (1) “the product must be the subject of a commercial offer for sale;”<sup>44</sup> and (2) “the invention must be ready for patenting.”<sup>45</sup> The Court, however, did not address how

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<sup>39</sup> *Pfaff*, 119 S. Ct. at 307.

<sup>40</sup> *Pfaff*, 124 F.3d at 1434 (citations omitted).

<sup>41</sup> *Pfaff*, 119 S. Ct. at 307 (citing *Corona Cord Tire Co. v. Dovan Chem. Corp.*, 276 U.S. 358, 383 (1928) (“A process is reduced to practice when it is successfully performed. A machine is reduced to practice when it is assembled adjusted and used. A manufacture is reduced to practice when it is completely manufactured. A composition of matter is reduced to practice when it is completely composed.”)).

<sup>42</sup> *Id.* at 304.

<sup>43</sup> *See id.* at 311-12.

<sup>44</sup> *Id.* at 311.

<sup>45</sup> *Id.* at 312. The second prong:

[M]ay be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.

*Id.*

eliminating the totality of the circumstances test in on sale cases affects the analysis for public use cases, as public use was not an issue in *Pfaff*.<sup>46</sup>

Historically, the Supreme Court has analyzed the public use and on sale bars in combination.<sup>47</sup> Because these bars have separate policy reasons for barring patentability, the analyses for determining whether there is a public use or a sale should be distinct in order to provide clarity and definiteness to these issues. On sale policy may not apply to public use distinctions and vice versa. Commingling the public use and on sale inquiry obfuscates the discourse, causing the policies and purposes behind these bars to patentability to be discounted.

The main reason why courts have combined public use and on sale issues stems from trying to analyze whether there has been an experimental

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<sup>46</sup> See *id.*

<sup>47</sup> See *International Tooth-Crown Co. v. Gaylord*, 140 U.S. 55, 62-63 (1891) (“[W]here the use is mainly for the purposes of trade and profit, and the experiment is merely incidental to that, the principal, and not the incident, must give character to the use.”); *Smith & Griggs Mfg. v. Sprague*, 123 U.S. 249, 265 (1887) (holding that the real purpose of the invention’s use was to conduct the manufacturer’s business; the improvement and perfection of the machine were merely incidental and subsidiary); *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 23-24 (1829).

[T]he first inventor cannot acquire a good title to a patent; if he suffers the thing invented to go into public use, or to be publicly sold for use, before he makes application for a patent. His voluntary act or acquiescence in the public sale and use is an abandonment of his right; or rather creates a disability to comply with the terms and conditions on which alone the secretary of state is authorized to grant him a patent.

*Petrolite Corp. v. Baker Hughes, Inc.*, 96 F.3d 1423, 1425 (Fed. Cir. 1996); *Tone Bros. v. Sysco Corp.*, 28 F.3d 1192, 1198 (Fed. Cir. 1994) (holding that the totality of the circumstances of the case must comport with the policies underlying the public use bar and noting the policies have been enumerated in the “on-sale” context); *LaBounty Mfg. v. United States Int’l Trade Comm’n*, 958 F.2d 1066, 1071 (Fed. Cir. 1992) (“a patentee may escape the section 102(b) bars on the ground that the use or sale was experimental”); *Sinskey v. Pharmacia Ophthalmics, Inc.*, 982 F.2d 494, 498 (Fed. Cir. 1992) (“To establish that an otherwise public use or sale does not run afoul of section 102(b), it must be shown that the activity was ‘substantially for purposes of experiment.’ *Baker Oil Tools, Inc. v. Geo Vann, Inc.* 828 F.2d 1558, 1564 (Fed. Cir. 1987)”; *In re Brigance*, 792 F.2d 1103, 1107-08 (Fed. Cir. 1986) (explaining that issues concerning public use or on sale bar “must be determined by considering the totality of the circumstances”); *Barmag Barmer Maschinenfabrik AG v. Murata Mach., Ltd.*, 731 F.2d 831, 836 (Fed. Cir. 1984) (“[T]he policies which underlie the public use or on sale bar, in effect, define the terms of the statute.”) (citation omitted).

use of the invention sufficient to overcome a statutory bar to patentability.<sup>48</sup> That is to say, if there has been experimentation on the invention to perfect it for its intended purpose, such a use does not begin the statutory bar time clock running.<sup>49</sup> This is called the experimental use doctrine. The experi-

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<sup>48</sup> See *Electric Storage Battery Co. v. Shimadzu*, 307 U.S. 5, 20 (1939) (“A mere experimental use is not the public use defined by the Act [of March 3, 1839], but a single use for profit, not purposely hidden, is such. The ordinary use of a machine or the practice of a process in a factory in the usual course of producing articles for commercial purposes is a public use.”); *Hall v. Macneale*, 107 U.S. 90, 97 (1883) (“The construction and arrangement and purpose and mode of operation and use of the bolts in the safes were necessarily known to the workmen who put them in . . . . The safes were sold, and, apparently, no experiment and no experimental use were thought to be necessary.”); *Scaltech Inc. v. Retec/Tetra, L.L.C.*, 156 F.3d 1193, 1197-98 (1998) (“If an embodiment of the claimed invention was not offered for sale, we look to see if a substantially completed embodiment of the claimed invention was offered for sale and ‘there was reason for a high degree of confidence that it would work for its intended purpose.’” (quoting *Micro Chem., Inc. v. Great Plains Chem. Co.*, 103 F.3d 1538, 1545 (Fed. Cir. 1997))), amended by *Scaltech Inc. v. Retec/Tetra L.L.C.*, 178 F.3d 1378 (Fed. Cir. 1999); see *Petrolite Corp.*, 96 F.3d at 1426 (“To establish that an otherwise public use or sale does not run afoul of section 102(b), it must be shown that the activity was ‘substantially for purposes of experiment.’”) (citation omitted); *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1575 (Fed. Cir. 1995) (“Commercial purpose underlies virtually every contact between inventor and potential customer. When testing an invention entails customer contact, that does not convert an otherwise experimental purpose into a public use.”); *RCA Corp. v. Data Gen. Corp.*, 887 F.2d 1056, 1061 (Fed. Cir. 1989) (“Thus, having been reduced to practice, a sale or offer to sell the . . . invention is no longer justifiable as experimental use.”); *Pennwalt Corp. v. Akzona, Inc.*, 740 F.2d 1573, 1581 (Fed. Cir. 1984) (“Any experimentation over one year before an application’s filing date must be for a bona fide experimental purpose rather than for commercial exploitation . . . . If any commercial exploitation does occur, it must be merely incidental to the primary purpose of experimentation to perfect the invention.”) (citation omitted); *In re Brigance*, 792 F.2d at 1108 (“While experimental use of an invention prior to the critical date is not a bar, a review of the cases reveals that the underlying experimental purposes were clearly supported by objective evidence. . . .”) (footnote omitted); but see *Continental Plastic Containers v. Owens Brockway Plastic Prods., Inc.*, 141 F.3d 1073, 1079 (Fed. Cir. 1998) (“‘public use’ and ‘on sale bars,’ while they share the same statutory basis, are grounded on different policy emphases”).

<sup>49</sup> See *Pennwalt Corp.*, 740 F.2d at 1581 (“Any experimentation over one year before an application’s filing date must be for a bona fide experimental purpose rather than for commercial exploitation . . . . If any commercial exploitation does

mental use analysis is the confounding variable that has led to the development of the totality of the circumstances test for public use and on sale cases. When it is necessary for courts to determine whether or not a use or sale is for experimental purposes, the issues of public use and on sale become muddled and the focus shifts to whether or not the use is experimental. Because public use and on sale issues have been treated together, the elimination of the totality of the circumstances test for one necessarily affects the other.

After reviewing the early Supreme Court cases and policies, as well as the Federal Circuit cases, this Article concludes that, after *Pfaff*, a general rule of law is needed to determine public use in patent cases. My proposed test for public use is the following: (1) the invention must be dedicated to the public or there must be detrimental public reliance that the invention is in the public domain; and (2) the invention must be ready for patenting. This test parallels the *Pfaff* test, replacing the first prong with the policies behind the public use bar. The second prong is identical to the *Pfaff* test. The proposed test recognizes the public use and on sale bars have the same statutory basis, but treats them as distinct and separate issues.

## II. SUPREME COURT'S HISTORICAL TREATMENT OF THE PUBLIC USE AND ON SALE BARS

The Patent Act of 1793<sup>50</sup> prohibited patenting an invention that had been in use or described in some public work before the patentee's discovery. The prohibition, however, did not take the same form as it does today. There was neither a grace period nor a specific prohibition against selling the invention. Section 6 of the 1793 Act provided that the defendant be permitted to argue in defense to a patent infringement action, "that the thing, thus secured by patent, was not originally discovered by the patentee, *but had been in use*, or had been described in some public work, *anterior to the supposed discovery of the patentee*."<sup>51</sup> In *Pennock v. Dialogue*,<sup>52</sup> the Supreme Court interpreted the meaning of section 6. In doing so, the Court focused its inquiry on two issues: whether the public had detrimentally relied on the invention being in the public domain, and whether the invention had been dedicated to the public:

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occur, it must be merely incidental to the primary purpose of experimentation to perfect the invention." (citations omitted).

<sup>50</sup> Act of Feb. 21, 1793, ch. 11, § 6.

<sup>51</sup> *Id.* (emphasis added).

<sup>52</sup> *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1 (1829).

If the public were already in possession and common use of an invention fairly and without fraud, there might be sound reason for presuming, that the legislature did not intend to grant an exclusive right to any one to monopolize that which was already common. There would be no *quid pro quo*—no price for the exclusive right or monopoly conferred upon the inventor for . . . [the patent term].

. . . .  
. . . [T]rue construction of the [Patent Act] is, that the first inventor cannot acquire good title to a patent; if he suffers the thing invented to go into public use, or to be publicly sold for use, before he makes application for a patent. His voluntary act or acquiescence in the public sale and use is an abandonment of his right; or rather creates a disability to comply with the terms and conditions on which alone . . . [is the authority] to grant him a patent.<sup>53</sup>

In the first paragraph of the quote, the Court emphasized the patent monopoly is not to be granted for something already in common use, regardless of the inventor's consent to its use.<sup>54</sup> If the invention is already in common and universal use, the public has detrimentally relied on the fact that the invention is in the public domain. In the second paragraph, the Court highlights the inventor's actions. The question revolves around whether the *inventor* forfeited or dedicated the invention to go into public use, and not just whether the *invention* is in public use. The Court devotes attention to the acts or acquiescence of the inventor.

As a separate issue, the Court discussed why selling an invention beyond the allowed statutory period was against the Act's policy:

If an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention; if he should for a long period of years retain the monopoly, and make, and sell his invention publicly, and thus gather the whole profits of it, relying upon his superior skill and knowledge of the structure; and then, and then only, when the danger of competition should force him to secure the exclusive right, he should be

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<sup>53</sup> *Id.* at 23-24. The term "abandonment," as used by the Court in this quote, refers to the concept of the inventor's forfeiture or dedication of the invention to the public. The term "abandonment," for purposes of this Article, is defined as an intentional or express relinquishment of rights as covered in 35 U.S.C. § 102(c) or in the context of § 102(g). Abandonment, in this context, will not be discussed in detail in this Article, as it focuses on public use under § 102(b).

<sup>54</sup> *See id.* at 23.

allowed to take out a patent, and thus exclude the public from any farther [sic] use than what should be derived under it during . . . [the patent term]; *it would materially retard the progress of science and the useful arts*, and give a premium to those who should be least prompt to communicate their discoveries.<sup>55</sup>

In *Pennock*, the invention improved the art of making tubes or hose for conveying air, water, and other fluids.<sup>56</sup> The inventors-patentees completed their invention in 1811 and did not file their application until 1818.<sup>57</sup> They consented to having approximately 13,000 feet of the subject hose constructed and sold to several hose companies in Philadelphia.<sup>58</sup> No experimental use was alleged. The patentees, however, argued that because the invention was sold with their permission, no abandonment of the invention occurred. The Court disagreed, however, and deferred to the jury's verdict, which found the invention had been abandoned or dedicated to the public. The Court emphasized the importance of looking at the acts or acquiescence of the patentees to furnish proof of abandonment or dedication to the public:

It has not been, and indeed cannot be denied, that an inventor may abandon his invention, and surrender or dedicate it to the public. This inchoate right, thus once gone, cannot afterwards be resumed at his pleasure; for, where gifts are once made to the public in this way, they become absolute. Thus, if a man dedicates a way or other easement to the public, it is supposed to carry with it a permanent right of user. The question which generally arises at trials, is a question of fact, rather than of law; whether the acts or acquiescence of the party furnish in the given case, satisfactory proof of an abandonment or dedication of the invention to the public.<sup>59</sup>

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<sup>55</sup> *Id.* at 19 (emphasis added). Here, the Court describes the concept of "spurring," where an inventor keeps the invention secret and only files when competitors begin to make the invention. When the inventor has realized the value of the invention, the inventor is spurred into filing. *See id.* Under the present patent statute, § 102(g) prohibits an inventor who abandons, suppresses, or conceals an invention from being entitled to a patent. There was no express statutory prohibition of spurring in the Patent Act of 1793. *See supra* note 23.

<sup>56</sup> *See Pennock*, 27 U.S. (2 Pet.) at 14.

<sup>57</sup> *See id.* at 8.

<sup>58</sup> *See id.* at 3.

<sup>59</sup> *Id.* at 16.

The patentees in *Pennock* undermined the policies of both the public use and on sale bars. The following acts were evidence of the patentees' forfeiture or dedication of the invention to the public: (1) delaying seven years to file the patent application after the invention was complete; (2) making and selling 13,000 feet of hose with the patentees' permission; and (3) selling the invention to those skilled in the art. After the public had fairly acquired possession of the invention, the inventors could not obtain a patent to take away what was in the public domain and put it back into their private hands. Although the sale of the hose is referred to in this public use analysis, the underlying focus of the concern stems from the inventor's forfeiture or dedication of the invention to the public and not the extension of the patent term, which is the concern for on sale cases. The invention was complete and ready for patenting.

In *Pennock*, the question of whether there had been a public use centered on whether the inventor dedicated the invention to the public or whether the public had detrimentally relied on the invention being in the public domain (e.g., the invention was in general or universal use). In later cases, the issue of experimental use of an invention becomes a prominent question in determining whether or not a use is considered public. Experimental use becomes an issue because a use for experimental purposes is not considered a public use under the statute.<sup>60</sup> If an invention is still being experimented upon, it is not ready for its intended purpose. In essence, an application for a patent cannot be filed because the invention is not ready for patenting. Thus, experimental use can be subsumed into the second prong of both the *Pfaff* and the proposed test: the invention must be ready for patenting.

If the reason for a sale or use is primarily for experimental purposes, the use or sale does not bar patentability.<sup>61</sup> In evaluating experimental use,

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<sup>60</sup> See *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126, 134 (1877) (stating that an inventor's use of an invention for experimental purposes, even if in public, has never been regarded as a public use); *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1574 (Fed. Cir. 1995) ("The law recognizes that the inventor may test the invention, in public if that is reasonably appropriate to the invention, without incurring a public use bar."); *Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 551 (Fed. Cir. 1990) (determining whether an invention works for its intended purpose in its intended environment is not a statutory public use); *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 971 (Fed. Cir. 1984) (reasoning that an experimental use, although not secretive, still bars the public use conclusion).

<sup>61</sup> See *Pennwalt Corp. v. Akzona Inc.*, 740 F.2d 1573, 1581 (Fed. Cir. 1984) ("Any experimentation . . . [beyond the grace period] must be for a bona fide



the public use and on sale bar analyses have become intertwined and are often not separately evaluated. Instead, the analysis revolves around whether the use or sale is for experimental purposes rather than on the statutory issues of whether the invention is in public use or on sale. Failing to separate the inquiries does not constrain the courts and require them to ask the following important questions: (1) whether there has been a commercial sale; (2) whether the invention has been dedicated to the public or whether the public has detrimentally relied on the invention being in the public domain; and (3) whether the invention was ready for patenting prior to the critical date.

The seminal case on experimental use is *City of Elizabeth v. American Nicholson Pavement Co.*<sup>62</sup> In this case the Supreme Court evaluated not only whether the invention had been dedicated to the public but also whether the use was experimental.<sup>63</sup> The plaintiff, Nicholson, invented and patented an inexpensive process for “constructing wooden block pavements upon a foundation along a street or roadway . . . [so] as to provide against the slipping of the horses’ feet, against noise, against unequal wear, and against rot.”<sup>64</sup> The defendant, the City of Elizabeth, used this pavement without Nicholson’s permission. As a defense to infringement, the defendant argued that the patent was invalid because the inventor had publicly used the invention beyond the grace period. Nicholson argued that this use was necessary to properly test whether the road surface was adequate for highway traffic.<sup>65</sup>

In order to evaluate whether the use was a public one, the Court found it “necessary to examine the circumstances under which this pavement was put down . . . [in public view].”<sup>66</sup> The Court noted that it was evident that the inventor did not intend to abandon his invention because he filed a caveat of his invention in the Patent Office in 1847.<sup>67</sup> The Court further noted that he laid the pavement “for the purpose of testing its qualities.”<sup>68</sup>

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experimental purpose rather than for commercial exploitation. If any commercial exploitation does occur, it must be merely incidental to the primary purpose of experimentation to perfect the invention.”) (citations omitted).

<sup>62</sup> *City of Elizabeth*, 97 U.S. at 126.

<sup>63</sup> *See id.* at 133 (“It is perfectly clear from the evidence that he did not intend to abandon his right to a patent.”).

<sup>64</sup> *Id.* at 127.

<sup>65</sup> *See id.* at 133.

<sup>66</sup> *Id.*

<sup>67</sup> *See id.*

<sup>68</sup> *Id.*

He constructed and laid down the pavement alone. He financed the use himself. The inventor checked the road surface daily to assess its durability.<sup>69</sup>

In analyzing this case, the Supreme Court made a distinction between public use and a use that is publicly visible. Even though the invention was publicly visible, the Court did not find the use to be a public one under the statute. The Court stated:

That the use of the pavement in question was public in one sense cannot be disputed. But can it be said that the invention was in public use? The use of an invention by the inventor himself, or any other person under his direction, by way of experiment, and in order to bring the invention to perfection, has never been regarded as such a use.<sup>70</sup>

The Court added that “the nature of a street pavement is such that it cannot be experimented upon satisfactorily except on a highway, which is always public.”<sup>71</sup> The Court emphasized that this “use is not a public use, within the meaning of the statute, so long as the inventor is engaged, in good faith, in testing its operation.”<sup>72</sup> The invention may need to be improved or altered. The only way to determine what improvements need to be made is to experiment, even if the experimentation is in public.<sup>73</sup>

The Court looked at the following factors to determine whether or not the use was experimental: (1) did the inventor voluntarily allow others to make or use the invention?; (2) did the inventor sell the invention for general use?; (3) did the inventor maintain control over the invention?; (4) did the inventor lose title to a patent? In looking at these factors, the Court found the use to be experimental, thereby negating public use.<sup>74</sup> These factors are reminiscent of factors later used by the Federal Circuit to evaluate public use in the context of experimental use, under the totality of the circumstances test.<sup>75</sup>

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<sup>69</sup> *See id.*

<sup>70</sup> *Id.* at 134 (citing GEORGE TICKNOR CURTIS, A TREATISE ON THE LAW OF PATENTS § 381 (4th ed. 1873); *Shaw v. Cooper*, 32 U.S. (7 Pet.) 292 (1833)).

<sup>71</sup> *Id.*

<sup>72</sup> *Id.* at 135.

<sup>73</sup> *See id.*

<sup>74</sup> *See id.*

<sup>75</sup> *See Lough v. Brunswick Corp.*, 86 F.3d 1113, 1119 (Fed. Cir. 1996) (stating that Mr. Lough “did not control the uses of his prototypes by third parties before the critical date, failed to keep records of the alleged experiments, and did not place

In this case, there was no evidence that the inventor dedicated his invention to the public. This was exhibited through the inventor's conduct, from laying the pavement himself to his daily visits to monitor the invention. Such acts do not indicate a forfeiture or dedication of the invention to the public. The Court, however, did not analyze whether there had been detrimental public reliance that the invention was in the public domain. It is possible there was some public reliance, because a similar road was laid in the City of Elizabeth, which motivated the lawsuit. Because the Court found that the use was experimental, negating public use, the detrimental reliance inquiry was somewhat unnecessary.<sup>76</sup>

In *Egbert v. Lippmann*,<sup>77</sup> the Supreme Court faced a situation quite different from that in *City of Elizabeth*. Instead of the nature of the invention being such that it could only be tested in a public setting, the invention here, corset-springs, are inherently used and tested in secret. The Court said that even if "some inventions are by their very character only capable of being used where they cannot be seen or observed by the public eye . . . [the use can be a public one if the] inventor sells a machine of which his invention forms a part, and allows it to be used without restriction of any kind."<sup>78</sup> In *Egbert*, the issue was whether the record sustained the defense that the patented invention had been publicly used beyond the allowed two-year grace period.<sup>79</sup>

In *Egbert*, Mr. Barnes invented a flexible and pliable pair of corset-springs in 1855 that would not break, unlike those previously made. Mr. Barnes gave an embodiment of his invention to a woman friend, who later became his wife. When the corsets in which the springs were used wore

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the parties to whom the . . . [invention was] given under any obligation of secrecy"); see also *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1265 (1986) (emphasizing that the inventor "at all times retained control over . . . [the invention's] use as well as over the distribution of information concerning it"), *rev'd*, 872 F.2d 407 (Fed. Cir. 1989); *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 972 (Fed. Cir. 1984) (articulating that the totality of the circumstances test evaluates factors such as: (1) were records kept? (2) was anyone besides the inventor conducting the experiments? (3) how many tests were conducted? (4) how long was the test period?).

<sup>76</sup> See *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126, 133 (1877).

<sup>77</sup> *Egbert v. Lippmann*, 104 U.S. 333 (1881).

<sup>78</sup> *Id.* at 336; see also *Hall v. Macneale*, 107 U.S. 90, 97 (1883) (stating that although interior bolts used in safes were concealed, "[t]hey had no more concealment than was inseparable from any legitimate use of them").

<sup>79</sup> See *Egbert*, 104 U.S. at 334.

out, Mrs. Barnes ripped them open, took out the springs and reused them in new corsets.

In 1863, Mr. Barnes showed an acquaintance, Mr. Sturgis, the corset springs. Mr. Barnes requested that Mrs. Barnes take them off so he could show them to Mr. Sturgis. Mrs. Barnes left the room, then returned and ripped the corsets open and took out the springs. Mr. Barnes explained to Mr. Sturgis the workings of the corset springs. The issue before the Court was whether the aforementioned evidence reflected a public use within the meaning of the statute.<sup>80</sup>

The Court stated that “whether the use of an invention is public or private does not necessarily depend upon the number of persons to whom its use is known.”<sup>81</sup> The key question is whether the inventor “gives or sells . . . [the invention] to another, to be used . . . without limitation or restriction, or injunction of secrecy, and [if] it is so used, such use is public, even though the use and knowledge of the use may be confined to one person.”<sup>82</sup> In contrast, the Court noted that “a use necessarily open to public view, if made in good faith solely to test the qualities of the invention, and for the purpose of experiment, is not a public use within the meaning of the statute.”<sup>83</sup>

The Court concluded that Mr. Barnes’ use was a public one. He gave two pairs of corset-steels, his invention, to Mrs. Barnes for her use. This invention was given to her free of any restricted use. “He imposed no obligation of secrecy, nor any condition or restriction whatever. They were not presented for the purpose of experiment, nor to test their qualities.”<sup>84</sup> The invention was complete at the time he gave her the gift. The record showed that “[t]he inventor slept on his rights for eleven years.”<sup>85</sup> He invented the corset-springs in 1855 and did not apply for a patent until March 1866. During that time the invention found its way into general, if not universal, use.<sup>86</sup> Having realized the value of his invention, Mr. Barnes “attempted to resume, by his application, what by his acts he had clearly dedicated to the public.”<sup>87</sup>

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<sup>80</sup> *See id.* at 335-36.

<sup>81</sup> *Id.* at 336.

<sup>82</sup> *Id.*

<sup>83</sup> *Id.* (citing *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126 (1877)).

<sup>84</sup> *Id.* at 337.

<sup>85</sup> *Id.*

<sup>86</sup> *See id.* (“A great part of the record is taken up with the testimony of the manufacturers and venders [sic] of corset-steels, showing that before he applied for . . . [a patent] the principle of his device was almost universally used . . .”).

<sup>87</sup> *Id.*

The Court held that the inventor had dedicated the invention to the public since the invention had found its way into general use.<sup>88</sup> Next, the Court determined that there had been no experimentation because the invention was complete. The invention was ready for patenting for over eleven years, as the corset-springs worked for their intended purpose. Further forfeiting his rights to the invention, the inventor was spurred into filing only after he realized the value of his invention.<sup>89</sup>

Keeping in mind the crucial issues of dedication to the public and detrimental public reliance, the Court decided *Hall v. Macneale*.<sup>90</sup> In this case, the invention covered an improvement in connecting doors and casings of safes. Safes encompassing the patented invention were in use and sold before the critical date. The patentee argued that the safes were experimental and the use for experimental purposes.<sup>91</sup> The Court disagreed, finding the use to be a public one. The Court emphasized that the workmen who installed the invention in the safes knew the invention's construction, arrangement, purpose, and mode of operation. Further, the Court noted that the invention was complete and there was no experimental use.<sup>92</sup> The Court said:

The invention was complete in those safes. It was capable of producing the results sought to be accomplished. . . . The construction and arrangement and purpose and mode of operation and use of the bolts in the safes were necessarily known to the workmen who put them in. They were, it is true, hidden from view, after the safes were completed, and it required a destruction of the safes to bring them into view. But this was no concealment of them or use of them in secret. They had no more concealment than was inseparable from any legitimate use of them. As to the use being experimental, it is not shown that any attempt was made to see if the plates of the safes could be stripped off, and thus to prove whether or not conical bolts [the invention] were efficient. The safes were sold, and, apparently, no experiment and no experimental use were thought to be necessary. The idea of a use for experiment was an afterthought. An invention of the kind might be in use and no burglarious attempt be ever made to enter the safe, and it might be said that the use of

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<sup>88</sup> *See id.*

<sup>89</sup> *See supra* note 20. *See also* 35 U.S.C. § 102(g) (1994) (specifically addressing spurring).

<sup>90</sup> *Hall v. Macneale*, 107 U.S. 90 (1883).

<sup>91</sup> *See id.*

<sup>92</sup> *See id.* at 97.

the invention was always experimental until the burglarious attempt should be made, and so the use would never be other than experimental.<sup>93</sup>

Because the only legitimate use of the safes would always conceal the invention, the patentees were unable to argue the use was not public. In arguing that the safes were experimental, the patentees said that they did not know if these bolts would hold during a burglary. The Court said that any use of the safes would not be considered experimental until an attempt to burglarize them was made. The Court found that all legitimate uses of an invention could not be considered experimental, especially without evidence of experimentation.<sup>94</sup>

Although the invention was somewhat hidden from public view, it was not concealed from the workmen who installed the invention into the safes. This is unlike *City of Elizabeth*,<sup>95</sup> where the inventor installed the invention himself. Disclosure to the workmen is evidence of forfeiture or dedication of the invention to the public. Because the workmen were skilled in the art, it is also possible there was some detrimental reliance that the invention was in the public domain. The Court did not delve into this issue, as they found there had been a commercial sale invalidating the patent. The Court determined that because the invention worked for its intended purpose, the use was not experimental.<sup>96</sup> In other words, the invention was ready for patenting.

In *Smith & Griggs Manufacturing Co. v. Sprague*,<sup>97</sup> the invention at issue covered improvements in machines for making buckle-levers. The patentee, Sprague, had the invention in use before the critical date. He produced about 50,000 levers used on buckles from his machines and sold them in the market. The workmen in his business operated the machines.<sup>98</sup> The public was able to view the machine's operation "either for the purpose of selling material for the manufacture or of purchasing its product."<sup>99</sup> Sprague claimed that the use was for experimental purposes only, as he was trying to perfect his machine. In fact, within the grace period, he incorporated improvements to the machine into three additional patent claims.<sup>100</sup>

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<sup>93</sup> *Id.*

<sup>94</sup> *See id.*

<sup>95</sup> *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126 (1877).

<sup>96</sup> *See id.*

<sup>97</sup> *Smith & Griggs Mfg. v. Sprague*, 123 U.S. 249 (1887).

<sup>98</sup> *See id.* at 254.

<sup>99</sup> *Id.*

<sup>100</sup> *See id.* at 250.

In *Smith & Griggs*, however, the invention did not consist of the entire machine, which was being improved. The Court said the invention was not a unit, because it was not one that consisted of the entire machine as ultimately constructed and operated. The Court stated:

Here the invention is not one, but many; each of the claims in both of the patents is for a specific combination in a practically successful machine for making buckle-levers, and each is a separate and distinct invention, and claimed as such . . . . [H]e did so use [the invention] for profit in the ordinary course and conduct of his business, and for the purpose of a successful prosecution of that business, it can hardly be said with propriety that such use was merely experimental . . . .<sup>101</sup>

Because the invention was not over the entire machine, the experimentation did not prevent the on sale bar to patentability. Although decided as a public use case, the Court looked at the case in terms of the policies underlying the on-sale bar, such as prohibiting commercial exploitation of the invention beyond the statutorily prescribed period. The Court found the use to be “mainly for the purposes of trade and profit, and the experiment . . . [was] merely incidental.”<sup>102</sup> The use of the machine was for the purpose of “conduct[ing] the business of the manufacture, the improvement and perfection of the machine being merely incidental and subsidiary.”<sup>103</sup>

Taking into consideration the policies underlying the public use bar, the inventor forfeited or dedicated his invention to the public by allowing the public to view the machine’s operation for the purpose of commercializing the invention.<sup>104</sup> Such viewing could also lead to the public’s detrimental reliance that the invention was in the public domain, absent a confidentiality agreement. Those who are viewing for the purpose of selling or purchasing the invention are those skilled in the art who have interest in using the invention without restriction.

*International Tooth-Crown Co. v. Gaylord*<sup>105</sup> involved an invention for an artificial denture placed upon the root of a partially destroyed tooth. The patentee, Dr. Richmond, taught a great number of dentists around the country how to work his invention. At no time did he indicate he was experimenting with the invention. He received compensation for all of his

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<sup>101</sup> *Id.* at 256.

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

<sup>103</sup> *Id.* at 266.

<sup>104</sup> *See id.* at 254.

<sup>105</sup> *International Tooth-Crown Co. v. Gaylord*, 140 U.S. 55 (1891).

instruction. Consequently, the Court found that his use was not experimental.<sup>106</sup> The Court noted, “[i]n . . . light of . . . [the facts] we are compelled to hold that . . . [the use] constituted such an abandonment of his . . . [invention] as to preclude his obtaining a valid patent for it.”<sup>107</sup> In this case, there was a commercial sale of the invention to dentists throughout the country. The invention was forfeited or dedicated to the public because Dr. Richmond taught the invention to those skilled in the art without restriction. Because of his widespread use of the invention around the country before those skilled in the art, the invention made its way into universal or general use.<sup>108</sup> The Court said:

If, as was said in *Consolidated Fruit Jar Co. v. Wright and Egbert v. Lippmann*, a single instance of sale or of use by the patentee may be fatal to the patent, much more is this so where the patentee publicly performs an operation covered by his patent in a dozen different cities throughout the country, and teaches it to other members of the profession, who adopt it as a recognized feature of their practice.<sup>109</sup>

Such widespread use of the invention evidenced that the public detrimentally relied on the invention being part of the public domain and available for general and universal use.

Note that in all of the cases evaluated in Part II, the Supreme Court focused on the policy issues underlying the public use and on sale bars in deciding whether an invention was on sale or in public use. The Court highlighted whether the invention had been forfeited or dedicated to the public, whether there had been detrimental reliance, or whether the invention had been commercialized, thus extending the monopoly beyond the statutory period. In the context of that inquiry, the Court evaluated whether the use or sale was primarily for experimental purposes. The Court did not always concretely separate these issues from one another. Despite this, the Court was able to reach the appropriate outcome, because it did not lose sight of the underlying policies encompassing the public use and on sale bars. Unfortunately, the Federal Circuit has not followed the Supreme Court’s approach of devoting attention to the crucial underlying policies of the public use and on sale bars, notwithstanding claims to the contrary. The Federal Circuit has utilized a totality of the circumstances approach in

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<sup>106</sup> See *id.* at 55, 62.

<sup>107</sup> *Id.* at 64.

<sup>108</sup> See *id.* at 63.

<sup>109</sup> *Id.* (citations omitted).



analyzing these cases. It is a policy approach tending to focus on whether a use or sale is for experimental purposes, rather than whether or not the use is public or the sale is commercial. The totality of the circumstances test is a policy approach that the Federal Circuit has treated as if it were a legal rule.

In the following section, the totality of the circumstances test is examined. Instead of continuing with this policy approach, public use and on sale issues should be put in terms of a legal rule that would provide clarity and predictability to the cases. The rule in *Pfaff* and the proposed rule serve this purpose.

### III. GENERAL OVERVIEW OF THE FEDERAL CIRCUIT'S APPLICATION OF THE TOTALITY OF THE CIRCUMSTANCES TEST IN PUBLIC USE AND ON SALE CASES

The Federal Circuit has used the totality of the circumstances test to determine whether a public use or on sale bar has occurred under 35 U.S.C. § 102.<sup>110</sup> The Federal Circuit has adopted the following underlying policies in applying the totality of the circumstances test: (1) discouraging the removal, from the public domain, of inventions that the public reasonably has come to believe are freely available; (2) favoring the "prompt and widespread disclosure of new inventions";<sup>111</sup> (3) allowing the inventor a reasonable amount of time following sales activity to determine the potential economic value of a patent; and (4) prohibiting the inventor from commercially exploiting the invention for a period greater than the statutorily prescribed time.<sup>112</sup> "To give effect to the underlying policies, the court will want to consider the totality of circumstances relating to the character and extent of commercial activities, the type of invention and its stage of development . . . along with the character and extent of bona fide experimentation."<sup>113</sup>

The purpose of the on sale bar is to prevent inventors from exploiting the commercial value of their inventions while deferring the beginning of

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<sup>110</sup> See *infra* notes 116-120 and accompanying text. In *Pfaff*, however, the Supreme Court eliminated the totality of circumstances test for the on sale bar issue. See *Pfaff v. Wells Elecs., Inc.*, 119 S. Ct. 304, 311-12 (1998).

<sup>111</sup> *General Elec. Co. v. United States*, 654 F.2d 55, 61 (Ct. Cl. 1981).

<sup>112</sup> See *id.*; see also *In re Caveney*, 761 F.2d 671, 676 (Fed. Cir. 1985); *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 860 (Fed. Cir. 1985); see also *Landry*, *supra* note 31, at 1163-69.

<sup>113</sup> *Western Marine Elecs., Inc. v. Furuno Elec. Co.*, 764 F.2d 840, 845 (Fed. Cir. 1985).

the statutory term.<sup>114</sup> In order to start the statutory bar clock running, it is necessary to determine when a sale or offer to sell has occurred. At first this may sound simple, but the timing of when a sale has occurred is precisely what has made the totality of the circumstances test unreasonably vague for on sale cases. Can an invention be sold or offered for sale if the invention has not been reduced to practice? In other words, is it necessary that there be an actual epitome of the invention, which includes all the patent claims, in order for there to be a sale?<sup>115</sup>

Interestingly, the Federal Circuit has “expressly rejected the notion that a physical embodiment is always required”<sup>116</sup> in determining whether a sale has occurred. The court in *UMC Electronics Co. v. United States*<sup>117</sup> stated that “reduction to practice of the claimed invention has not been and should not be made an absolute requirement of the on-sale bar.”<sup>118</sup> This ruling, however, did not provide concrete guidance to give notice as to when a sale has occurred.

In 1997, the Federal Circuit decided *Pfaff v. Wells Electronics, Inc.*<sup>119</sup> and articulated that the proper question in addressing on sale issues “is whether the invention was *substantially complete* at the time of sale such that there was ‘reason to expect that it would work for its intended purpose upon completion.’”<sup>120</sup> This ruling continued the confusion and uncertainty in resolving when an invention has been on sale or offered for sale. The Supreme Court granted certiorari in *Pfaff* for two reasons:<sup>121</sup> “[1] [b]ecause other courts have held or assumed that an invention cannot be ‘on sale’ within the meaning of § 102(b) unless and until it has been reduced to practice and [(2)] because the text of § 102(b) makes no reference to ‘substantial completion’ of an invention.”<sup>122</sup>

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<sup>114</sup> See *Continental Plastic Containers v. Owens Brockway Plastic Prods., Inc.*, 141 F.3d 1073, 1079 (Fed. Cir. 1998); *Ferag AG v. Quipp, Inc.*, 45 F.3d 1562, 1567-68 (Fed. Cir. 1995).

<sup>115</sup> See *UMC Elecs. Co. v. United States*, 816 F.2d 647, 652 (Fed. Cir. 1987) (defining reduction to practice to mean that there must be “a physical embodiment [of the invention] which includes all limitations of the claim”).

<sup>116</sup> *Pfaff v. Wells Elecs., Inc.*, 124 F.3d 1429, 1434 (Fed. Cir. 1997) (citing *Barmag Barmer Maschinenfabrik AG v. Murata Mach., Ltd.*, 731 F.2d 831, 837 (Fed. Cir. 1984)), *aff’d* 119 S. Ct. 304 (1998).

<sup>117</sup> *UMC Elecs.*, 816 F.2d at 647.

<sup>118</sup> *Id.* at 656.

<sup>119</sup> *Pfaff*, 124 F.3d at 1429.

<sup>120</sup> *Id.* at 1434 (quoting *Micro Chem., Inc. v. Great Plains Chem. Co.*, 103 F.3d 1538, 1545 (Fed. Cir. 1997)) (emphasis added).

<sup>121</sup> See *Pfaff v. Wells Elecs., Inc.*, 118 S. Ct. 1183 (1998).

<sup>122</sup> *Pfaff v. Wells Elecs., Inc.*, 119 S. Ct. 304, 308 (1998) (citations omitted).

In *Pfaff*, the Supreme Court eliminated the totality of the circumstances test for on sale bar analysis and created a general rule of law to define when a sale has occurred under 35 U.S.C. § 102(b). The Court stated that the “on-sale bar applies when two conditions are satisfied before the critical date [1] the product must be the subject of a commercial offer for sale . . . [2] [t]he invention must be ready for patenting.”<sup>123</sup> The second prong:

may be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.<sup>124</sup>

In public use cases, the totality of the circumstances test becomes confusing in determining whether or not a use is based on an experimental use. Even though experimental use is reputed to be a negation of public use, the Court of Appeals for the Federal Circuit has occasionally applied a totality of the circumstances test to determine if a use is experimental.<sup>125</sup> This, in essence, treats experimental use as if it were an exception to the public use bar with distinct criteria, rather than a public use negation.<sup>126</sup> This has caused the courts to reach inconsistent results, intensifying the criticism that all of the circumstances tests are “unnecessarily vague.”<sup>127</sup>

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<sup>123</sup> *Id.* at 311-12.

<sup>124</sup> *Id.* at 312.

<sup>125</sup> Note that 35 U.S.C. § 102(b) does not make reference to the phrase “experimental use.” Public use is the issue evaluated under 35 U.S.C. § 102(b). This is similar to what the Supreme Court said in *Pfaff* in granting certiorari: “because the text of § 102(b) makes no reference to ‘substantial completion of an invention.’” *Id.* at 308.

<sup>126</sup> To determine whether a use is experimental these objective indicia have been analyzed:

the number of prototypes and the duration of testing, whether records or progress reports were made concerning the testing, the existence of a secrecy agreement between the patentee and the party performing the testing, whether the patentee received compensation for the use of the invention, and the extent of control the inventor maintained over the testing. *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1120 (Fed. Cir. 1996) (citations omitted).

<sup>127</sup> *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1323 n.2 (Fed. Cir. 1996).

What is the significance between experimental use as a negation to public use versus an exception to public use? In essence, the Federal Circuit answered this question in *TP Laboratories, Inc. v. Professional Positioners, Inc.*<sup>128</sup> In this case, orthodontists tested tooth-positioners on patients for several years. Each use occurred prior to the critical date. The orthodontists kept records of the tests and did not specifically charge their patients for implanting the positioners. The patentees, TP Laboratories, sued competitors, Professional Positioners, for infringement. In their defense, the alleged infringers argued the use was public, invalidating the patent.<sup>129</sup>

The trial court found that the use was public.<sup>130</sup> The Federal Circuit criticized the trial court's method of concluding that the use was public.<sup>131</sup> The trial court put the burden on the patent owner to prove that a public use was experimental.<sup>132</sup> The Federal Circuit, in its analysis, introduced the idea that there is only one inquiry when determining whether there has been a public use:

[I]t is incorrect to impose on the patent owner, as the trial court in this case did, the burden of proving that a "public use" was "experimental." These are not two separable issues. It is incorrect to ask: "Was it public use?" and then, "Was it experimental?" Rather, the court is faced with a single issue: Was it public use under § 102(b)?

. . . This does not mean, of course, that the challenger has the burden of proving that the use is not experimental. Nor does it mean that the patent owner is relieved of explanation. It means that if a *prima facie* case is made of public use, the patent owner must be able to point to or must come forward with convincing evidence to counter that showing.<sup>133</sup>

The Federal Circuit said the trial court should have looked at all of the evidence in its entirety and decided whether it led to the conclusion there had been a public use.<sup>134</sup> Thus, the test is whether the evidence, in its entirety, leads to the conclusion that a public use occurred.

In applying this test, the Federal Circuit found that disclosure of the positioner could not be avoided in any testing. Although there were no

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<sup>128</sup> *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965 (Fed. Cir. 1984).

<sup>129</sup> *See id.* at 966-68.

<sup>130</sup> *See id.* at 966.

<sup>131</sup> *See id.* at 971.

<sup>132</sup> *See id.*

<sup>133</sup> *Id.* (footnote omitted).

<sup>134</sup> *See id.*

confidentiality agreements made between orthodontist and patient, the court implied confidentiality from the dentist-patient relationship. Nothing in the use was inconsistent with experimentation.<sup>135</sup> A routine checkup “does not indicate the inventors lack of control or abandonment to the public.”<sup>136</sup>

The court discussed the on sale issue separately, noting that no positioners covered by the patent were sold to competing dentists. The inventor did not charge his patients extra for the improved positioners.<sup>137</sup> “No commercial exploitation having been made to even a small degree prior to filing the patent application, the underlying policy of prohibiting an extension of the term is clearly not offended in this respect.”<sup>138</sup>

The Federal Circuit found that none of the policies underlying the public use bar had been violated. The uses were not secret but the invention was not abandoned to the public. There was no evidence that given the use, the invention found its way into universal or general use, thus dedicating the invention to the public. The inventors sold the positioners to the patients. The invention, however, was not ready for patenting as the positioners were being tested through the critical date.<sup>139</sup>

#### IV. THE LIMITATIONS OF A POLICY APPROACH TO LEGAL ANALYSIS USING TOTALITY OF THE CIRCUMSTANCES TESTS

Supreme Court Justice Antonin Scalia wrote an essay discussing the perils in utilizing totality of the circumstances tests too readily as a mechanism for finding justice.<sup>140</sup> It explores the “dichotomy between the ‘general rule of law’ and ‘personal discretion to do justice.’”<sup>141</sup> Giving judges the personal discretion to do justice often appears to create flexibility in a statutory framework that seems too rigid to dispense justice. However, he notes that judges’ decisions should not be overrated.<sup>142</sup> There are competing values in finding the “perfect” answer, one of which is the appearance of equal treatment.<sup>143</sup> Justice Scalia observes:

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<sup>135</sup> *See id.* at 972.

<sup>136</sup> *Id.*

<sup>137</sup> *See id.* at 972-73.

<sup>138</sup> *Id.* at 973.

<sup>139</sup> *See id.*

<sup>140</sup> *See* Scalia, *supra* note 7.

<sup>141</sup> *Id.* at 1176.

<sup>142</sup> *See id.* at 1178.

<sup>143</sup> *See id.*

[T]he trouble with the discretion-conferring approach to judicial law making is that it does not satisfy this sense of justice very well. When a case is accorded a different disposition from an earlier one, it is important, if the system of justice is to be respected, not only that the later case *be* different, but that it *be seen to be so*. When one is dealing, as . . . [the Supreme] Court often is, with issues so heartfelt that they are believed by one side or the other to be resolved by the Constitution itself, it does not greatly appeal to one's sense of justice to say: "Well, that earlier case had nine factors, this one has nine plus one." Much better, even at the expense of the mild substantive distortion that any generalization introduces, to have a clear, previously enunciated rule that one can point to in explanation of the decision.<sup>144</sup>

Moreover, the discretion-conferring approach can lead to unpredictability, not only within the Court, but also at the trial court level and intermediate appellate levels. Justice Scalia further states:

The fact is that when we decide a case on the basis of what we have come to call the 'totality of the circumstances' test, it is not *we* who will be 'closing in on the law' in the foreseeable future, but rather thirteen different courts of appeals—or, if it is a federal issue that can arise in state court litigation as well, thirteen different courts of appeals and fifty state supreme courts. To adopt such an approach, in other words, is effectively to conclude that uniformity is not a particularly important objective with respect to the legal question at issue.<sup>145</sup>

Although appeals in patent cases go directly to the Court of Appeals for the Federal Circuit and not to the various regional circuits,<sup>146</sup> Justice Scalia's point is appropriate for patent cases as well. The Federal Circuit was created in order to bring uniformity and predictability to the patent law.<sup>147</sup> Without more discrete rules, this predictability and uniformity of the patent law will be difficult to attain.

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<sup>144</sup> *Id.*

<sup>145</sup> *Id.* at 1179.

<sup>146</sup> 28 U.S.C. § 1295(a) (1994).

<sup>147</sup> See Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25; see also *South Corp. v. United States*, 690 F.2d 1368, 1371 (Fed. Cir. 1982) (reciting that the Federal Circuit Court was "created and chartered with the hope and intent that stability and uniformity would be achieved in all fields of law within its substantive jurisdiction").

The idea behind finding a general rule of law applicable to all situations is philosophically viable, but often difficult to apply in practice. How does one articulate a suitable general rule for determining whether an invention is in the public use within § 102(b), without resorting to a totality of the circumstances test? Justice Scalia notes that it is perhaps easier for him than it is for some judges to develop general rules in this area, as he adheres closely to the plain meaning of the text.<sup>148</sup> Justice Scalia states that the difficulty in creating general rules stems not only from the nature of the subject matter in general, but also from the limited scope of materials judges may consult. Judges must find some basis for framing these general rules out of the text of a statute or that which the Constitution provides.<sup>149</sup> Justice Scalia, however, suggests that “[i]t is rare, however, that even the most vague and general text cannot be given some precise, principled content—and that is indeed the essence of the judicial craft. . . . The trick is to carry general principle as far as it can go in substantial furtherance of the precise statutory or constitutional prescription.”<sup>150</sup>

In *Pfaff*, the Supreme Court created a general rule of law to define when a sale has occurred under § 102(b). The rule has two prongs: (1) “the

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<sup>148</sup> See Scalia, *supra* note 7, at 1184. Justice Scalia formulates an example of his method of interpretation versus that of his colleagues in the case *Michigan v. Chesternut*, 486 U.S. 567 (1988). In *Chesternut*, the issue was whether a defendant had been “seized” for purposes of the Fourth Amendment. The defendant was running away from a police car. Initially, the car followed, but then drove alongside him. As the car was beside him, the defendant dropped a packet of illegal drugs which was recovered by the police. If these events amounted to a seizure, and “if probable cause was lacking, the evidence was inadmissible and the conviction for unlawful possession would have to be reversed.” Scalia, *supra* note 7, at 1184. The Court, in deciding the case, applied the following test: “whether a person in the defendant’s position would have felt that he was free to disregard the police and go about his business.” *Id.* Although not a totality of the circumstances test, it specifically held neither “a chase without a stop was a seizure [nor] . . . a chase without a stop could not be a seizure.” *Id.* Justice Scalia suggested that making these determinations could have made the law more precise than the reasonable person standard used in the majority opinion. See *id.*

<sup>149</sup> See Scalia, *supra* note 7, at 1182-83.

<sup>150</sup> *Id.* at 1183. Justice Scalia gives the example of the Sherman Act’s vague language prohibiting “contract[s], combination[s] . . . or conspirac[ies] in restraint of trade.” *Id.* (citing 15 U.S.C. § 1 (1990)). Even though this language is vague, the Court has not required there to be a totality of the circumstances test in every case. The Court’s general “test for per se Sherman Act illegality . . . is whether the type of conduct in question ‘would always or almost always tend to restrict competition and decrease output.’” *Id.* (emphasis added) (quoting *Broadcast Music, Inc. v. CBS*, 441 U.S. 1, 19-20 (1979)).

product must be the subject of a commercial offer for sale;<sup>151</sup> and (2) “the invention must be ready for patenting.”<sup>152</sup> The second prong may be satisfied “by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.”<sup>153</sup>

The Court came to this rule through looking at the historical origins of the patent system:

[T]he patent system represents a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time. The balance between the interest in motivating innovation and enlightenment by rewarding invention with patent protection on the one hand, and the interest in avoiding monopolies that unnecessarily stifle competition on the other, has been a feature of the federal patent laws since their inception.<sup>154</sup>

The Court noted that § 102 is a limiting provision, consistent with promoting the progress of science and the useful arts.<sup>155</sup> Section 102 excludes “ideas that are in the public domain from patent protection and confine[s] the duration of the monopoly to the statutory term.”<sup>156</sup> The idea is to encourage invention in exchange for a government granted monopoly presented to the patent owner for a limited period of time.<sup>157</sup> In exchange for this temporary monopoly, the patent owner must publicly

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<sup>151</sup> *Pfaff v. Wells Elecs., Inc.*, 119 S. Ct. 304, 311-12 (1998).

<sup>152</sup> *Id.*

<sup>153</sup> *Id.* at 312.

<sup>154</sup> *Id.* at 310.

<sup>155</sup> *Id.* The U.S. Constitution gives Congress the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. CONST. art. I, § 8, cl. 8.

<sup>156</sup> *Pfaff*, 119 S. Ct. at 310 (citing *Frantz Mfg. v. Phoenix Mfg.*, 457 F.2d 314, 320 (7th Cir. 1972)).

<sup>157</sup> The patent grant “shall be for a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for patent was filed in the United States.” 35 U.S.C. § 154(a)(2) (1994). The patent owner gains a right to exclude others from “making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States.” *Id.* § 154(a)(1).



disclose the substance of his or her invention. Such disclosure effectively dedicates the invention to the public after the patent term has ended, thereby benefiting society and furthering its knowledge. As such, the governmental power to grant this monopoly reflects a balance between encouraging innovation and avoiding competition-stifling monopolies having no contemporaneous purpose in advancing "the Progress of Science and useful Arts."<sup>158</sup>

However, if the idea is to encourage invention, it is important that inventors know what activities will forfeit their rights to patent their inventions. As the *Pfaff* Court found, certainty is needed to provide these inventors with a definite standard in determining when a patent application must be filed in order to serve the proper notice function of the statute.<sup>159</sup> The Court iterated that the totality of the circumstances test "undermine[d] the interest in certainty"<sup>160</sup> in determining when an invention was on sale for § 102(b) purposes.

In continuing its search for a general rule of law, the Court examined the word "invention" in the context of § 102. The Court concluded "invention must refer to a concept that is complete, rather than merely one that is 'substantially complete.'"<sup>161</sup> Determining what is "substantially complete" is too vague.<sup>162</sup> Although "reduction to practice ordinarily provides the best evidence that an invention is complete . . . it does not follow that proof of reduction to practice is necessary in every case."<sup>163</sup>

In *Pfaff*, the Court reviewed several of the early Supreme Court cases. According to the Court, these cases could be best understood as "indicating that the invention's reduction to practice demonstrated that the concept was no longer in an experimental phase."<sup>164</sup> Thereafter, the Court enumerated the following test to determine when the on-sale bar applies: (1) when the product is the subject of a commercial sale; and (2) when the invention is ready for patenting.<sup>165</sup>

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<sup>158</sup> *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989).

<sup>159</sup> *See Pfaff*, 119 S. Ct. at 311.

<sup>160</sup> *Id.*

<sup>161</sup> *See id.*; *see also Pfaff v. Wells Elecs., Inc.*, 124 F.3d 1429, 1434 (Fed. Cir. 1997) (finding the appropriate question to be whether the invention was substantially complete at the time of sale such that there was "reason to expect that it would work for its intended purpose upon completion").

<sup>162</sup> *See Pfaff*, 119 S. Ct. at 311.

<sup>163</sup> *Id.*

<sup>164</sup> *Id.* at 311 n.12.

<sup>165</sup> *See id.* at 311-12.

In a sense, the Court is applying a “constructive reduction to practice” standard<sup>166</sup> when it says the invention must be ready for patenting. If the inventor prepares enough descriptions of the invention so that he or she could have constructively reduced the invention to practice by filing an application in the U.S. Patent and Trademark Office, the invention is ready for patenting under *Pfaff*.<sup>167</sup>

Because of the Supreme Court’s concern in *Pfaff* for creating a definite standard for determining when a patent application must be filed, it follows that the same concern must exist for when an invention is in public use under § 102. Currently, the case law still applies the totality of the circumstances test with respect to this issue.<sup>168</sup> Yet, it seems inconsistent to continue to apply this test to public use issues. Engaging in frequent totality of the circumstances tests makes judges fact-finders rather than determiners of law.<sup>169</sup> “[W]hen an appellate judge comes up with nothing better than a totality of the circumstances test to explain his decision, he is not so much pronouncing the law in the normal sense as engaging in the less exalted function of fact-finding.”<sup>170</sup>

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<sup>166</sup> Constructive reduction to practice occurs when a patent application is filed. See *Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed. Cir. 1998). The general requirements for filing a patent application are set forth in 37 C.F.R. § 1.51. An application must include, inter alia, a specification enabling one of skill in the art to practice the invention. See 35 U.S.C. § 112 (1975). Drawings, if appropriate, should be submitted along with an oath or declaration that the applicants believe they are the original inventors. See *id.*

<sup>167</sup> See *In re Costello*, 717 F.2d 1346, 1350 (Fed. Cir. 1983) (stating that the constructive reduction to practice date is a benefit as long as the application is not abandoned:

While the filing of the original application theoretically constituted a constructive reduction to practice at the time, the subsequent abandonment of that application also resulted in an abandonment of the benefit of that filing as a constructive reduction to practice. The filing of the original application is, however, evidence of conception of the invention.).

*Id.*

<sup>168</sup> See *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1323 & n.2 (Fed. Cir. 1996); see also *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1119 (Fed. Cir. 1996); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1266 (Fed. Cir. 1986); *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 972 (Fed. Cir. 1984) (asserting that the “decision on whether there has been a ‘public use’ can only be made upon consideration of the entire surrounding circumstances”).

<sup>169</sup> See *Scalia*, *supra* note 7, at 1182.

<sup>170</sup> *Id.* at 1180-81.

If judges want to make issues questions of law, perhaps it would be better to create general rules of law and be law determiners rather than to create more totality of the circumstances tests and function as prestigious fact-finders.<sup>171</sup>

#### V. A PROPOSED GENERAL RULE OF LAW TEST TO DETERMINE PUBLIC USE AFTER *PFUFF*

Because the on sale and public use bars have been analyzed in combination, it is necessary to eliminate the current totality of the circumstances test used to determine whether there has been a public use in violation of § 102(b). Not only has the analysis inappropriately focused on whether the use is experimental rather than public, the test may be unreasonably vague. A general rule of law test that is more concrete than the totality of the circumstances test is one that parallels the rule articulated in *Pfuff*: (1) the invention must be dedicated to the public or there must be detrimental public reliance that the invention is in the public domain; and (2) the invention must be ready for patenting.<sup>172</sup> The first prong of the test remains true to the older Supreme Court cases that focused on the crucial

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<sup>171</sup> See *Lough v. Brunswick Corp.*, 86 F.3d 1113 (1996), *reh'g en banc denied*, 103 F.3d 1517 (Fed. Cir. 1997) (Lourie, J., concurring).

The dissents from the decision not to take the case en banc argue that public use is a question of fact, not law, and that the panel erred in failing to defer to the jury's decision of public use. . . .

We have for some time considered the question of public use under 35 U.S.C. § 102(b) to be a question of law. . . . The reason it is a question of law is that it is a statutory term that requires the exercise of judgment, taking into account a variety of facts in light of the policies behind the statute. Public use is not a matter of simply determining whether, *e.g.*, a particular event occurred more than one year from the filing date of an application, a matter capable of precise determination. It encompasses underlying facts such as whether the action in question was undertaken for commercial purposes, whether members of the public viewed the invention without any bond of confidentiality to the inventor, whether the nature of the invention was discernible by observation, whether any precautions were taken to exclude outsiders, etc. These facts, determinable by a fact-finder and of course subject to deference, must be weighed in making a judgment whether they amount to the type of action that the statute was intended by Congress to prohibit.

*Id.*

<sup>172</sup> See *Pfuff v. Wells Elecs., Inc.*, 119 S. Ct. 304, 311-12 (1998).

underlying principles behind the public use bar. The second prong preserves the experimental use doctrine because it takes into account experimentation. If the use is purely experimental, the invention is not ready for patenting. As such, if there were sufficient experimentation, there would be no public use under § 102(b). In addition, this proposed rule meets the goal of the Supreme Court in *Pfaff*, which is to provide a “definite standard in determining when a patent application must be filed”<sup>173</sup> in order to serve the proper notice function of § 102(b).

While preserving the experimental use doctrine’s effects, the proposed test properly focuses on whether or not the use is a public one rather than whether or not the use is experimental. In other words, the question should be whether the invention has been forfeited or dedicated to the public or whether the public detrimentally relied on the invention being in the public domain. After analyzing the early Supreme Court opinions discussed in Part II and other opinions written by Supreme Court Justices sitting by designation in district courts, the purposes behind the public use bar lead to this conclusion.<sup>174</sup> An inexhaustive list of factors indicating whether or

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<sup>173</sup> *Id.* at 311.

<sup>174</sup> See *Mellus v. Silsbee*, 16 F. Cas. 1332, 1334 (C.C.D. Mass. 1825) (No. 9,404). Supreme Court Justice Story, sitting as Circuit Justice, charged the jury:

I am clearly of the opinion, that if the inventor dedicates his invention to the public, he cannot afterwards resume it, or claim an exclusive right in it. It is like the dedication of a public way, or other public easement. The question, in such cases, is a question of fact. Has he so dedicated it? I agree his acts are to be construed liberally; that he is not to be estopped by licensing a few persons to use his invention to ascertain its utility, or by any such acts of peculiar indulgence and use, as may fairly consist with the clear intention to hold the exclusive privilege. But if the inventor proclaims his intention to all the world, and suffers it to go into general and public use, without objection; if he asserts no exclusive right for years, with a full knowledge that the public are led by it to a general use, such conduct, in my judgment amounts to strong proof, that he waives the exclusive right, and dedicates the invention to the world. After such conduct, the attempt to regain the exclusive right, and secure it by a patent, would operate as a fraud upon the public; and would hold out inducements to incur heavy expenses in putting inventions into operation, of which the party might be deprived at the mere will or caprice of the inventor.

*Id.* See *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 23-24 (1829):

[W]e are all of opinion, that the true construction of the act is, that the first inventor cannot acquire a good title to a patent; if he suffers the thing invented to go into public use, or to be publicly sold for use, before he makes application for a patent. His voluntary act or acquiescence in the

not a use has been dedicated to the public includes: (1) whether the invention is in general or universal use; (2) whether the inventor's delay in filing, beyond the statutory period, has dedicated the invention to the public or allowed the public to have detrimentally relied that the invention is in the public domain; and (3) whether those skilled in the art have had access to the use. If those skilled in the art have had access to the use, this increases the likelihood of detrimental public reliance.

The proposed test is less vague than the current totality of the circumstances test. There is still room, however, for judicial interpretation. For example, determining whether the invention has been dedicated to the public or whether there has been detrimental public reliance still leaves room for judicial discretion. This flexibility, however, is probably no more prevalent here than in the on sale rule enumerated in *Pfaff*. The *Pfaff* test requires the fact-finder to determine when an invention has been subject to

public sale and use is an abandonment of his right; or rather creates a disability to comply with the terms and conditions on which alone the secretary of state is authorized to grant him a patent.

*Id. See Shaw v. Cooper*, 32 U.S. (7 Pet.) 292, 320 (1833):

The patent law was designed for public benefit, as well as for the benefit of inventors. . . . [I]t was not the intention of this law, to take from the public, that of which they were fairly in possession. . . .

. . . And it would be extremely impolitic, to retard or embarrass this advance, by withdrawing from the public any useful invention or art, and making it a subject of private monopoly.

. . . .

No matter by what means an invention may be communicated to the public, before a patent is obtained; any acquiescence in the public use, by the inventor, will be an abandonment of his right. . . .

The invention passes to the possession of innocent persons, who . . . [,] at a considerable expense, perhaps . . . appropriate it to their own use.

*Id. See Ryan v. Goodwin*, 21 F. Cas. 110, 111-12 (C.C.D. Mass. 1839) (No. 12, 186). Justice Story, sitting as Circuit Justice, instructed the jury:

If the use . . . be merely experimental, to ascertain the value or utility, or success of the invention, by putting it in practice, that is not such a use, as will deprive the inventor of his title . . . . A sale or use of [the invention] . . . in the intermediate time between the application for a patent and a grant thereof . . . [is not a public use]. It furnishes no foundation to presume, that the inventor means to abandon his invention to the public; and does not, because it is not within the words of . . . [the Patent Act], create any statute disability to assert his right to a patent.

*Id.*

a commercial sale.<sup>175</sup> However, this discretion is necessary, unlike the vagueness in the current totality of the circumstances test.

To address some uncertainties in *Pfaff*, it is more pragmatic to hold that all sales or offers for sale are commercial. It may be difficult to determine where an experimental sale starts and when the commercial sale begins. True experiments could be protected in the second prong of the *Pfaff* test, which states that the invention must be ready for patenting. If the invention is truly in an experimental phase, it will not be ready for patenting. Thus, the second prong of the *Pfaff* test will not be met. That is to say, there will be no “proof of reduction to practice before the critical date; or . . . proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.”<sup>176</sup>

The same is true for the proposed test for public use. The invention must be ready for patenting. One difference between evaluating a commercial sale versus a public use is that there needs to be some recognition that a reasonable evaluation period is needed to experiment on an invention. This evaluation period should be tied to what a person of ordinary skill would think a reasonable evaluation period is for the art in question. One other concern must be noted. If the inventor does not change anything after the evaluation period, it may appear that no experimentation occurred. To rectify this problem, it is necessary to look at the art in question and determine whether the delay was reasonable. The answer will vary depending on the type of invention.

## VI. FEDERAL CIRCUIT CASES EXAMINED

### A. Cases Commingling Commercialization and Public Use Analysis

In *Moleculon Research Corp. v. CBS, Inc.*,<sup>177</sup> the Federal Circuit appropriately asked whether there was a public use of the invention, rather than whether the use was experimental. In *Moleculon*, Larry Nichols conceived of a cube puzzle composed of “eight cubes attached in a 2 x 2 x 2 arrangement, with each of the six faces of the composite cube distinguished by a different color and the individual cubes being capable of rotation in sets of four around one of three mutually perpendicular axes.”<sup>178</sup>

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<sup>175</sup> See *supra* note 123 and accompanying text.

<sup>176</sup> *Pfaff*, 119 S. Ct. at 312 (footnote omitted).

<sup>177</sup> *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261 (Fed. Cir. 1986).

<sup>178</sup> *Id.* at 1263.

From 1957 to 1962, Nichols constructed paper models of his idea. He showed these models to a few close friends, "including two roommates and a colleague in the chemistry department."<sup>179</sup> The puzzles were located in Nichols' room and he "explained its operation to at least one of them."<sup>180</sup>

In 1962, Nichols began to work as a research scientist at Moleculon. In 1968, Nichols constructed a wood block prototype of his cube puzzle. Generally, he kept his invention at home, but occasionally he brought it to his office. In January 1969, the president of Moleculon, Dr. Obermayer, saw the model on Nichols' desk. Dr. Obermayer expressed interest in commercializing the puzzle, although Nichols had not intended to do so. In March 1969, Nichols assigned to Moleculon all his rights to the puzzle in return for a share of potential proceeds gained from commercialization. After the critical date, Moleculon contacted approximately fifty to sixty game manufacturers. Despite its efforts, Moleculon did not succeed in marketing Nichols' cube.<sup>181</sup> Moleculon did, however, file a patent application covering Nichols' cube on March 3, 1970. This patent issued on April 11, 1972, as U.S. Patent No. 3,655,201 (the '201 patent').<sup>182</sup>

The devices accused of infringing the '201 patent were various renditions of the Rubik's cube puzzle. As a defense to infringement, the defendant, CBS, alleged Nichols placed the subject invention in "public use" and "on sale" before the March 3, 1969 critical date, thus rendering the patent invalid under § 102(b). CBS characterized Nichols' showing the model of his invention to his colleagues, without any confidentiality restrictions, as a public use. Moreover, CBS surmised Obermayer's use as purely commercial, creating a statutory bar to patenting.<sup>183</sup>

The Federal Circuit disagreed with CBS, finding that Nichols' use was for his own private use, not a public use.<sup>184</sup> The court quoted from the trial court's opinion in making its determination:

The essence of 'public use' is the free and unrestricted giving over of an invention to a member of the public or the public in general. What I see here, by contrast, is the inventor's private use of his own invention for his own enjoyment. 'Private use of one's own invention is permissible.'

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<sup>179</sup> *Id.*

<sup>180</sup> *Id.*

<sup>181</sup> *See id.*

<sup>182</sup> *See id.*

<sup>183</sup> *See id.* at 1265.

<sup>184</sup> *See id.*

. . . He never used the puzzle or permitted it used in a place or a time when he did not have a legitimate expectation of privacy and of confidentiality.

. . . None of those participants had any basis for inferring that the puzzle was being given over by Nichols for their free and unrestricted use. Holding the public use bar inapplicable in these circumstances *will not remove anything from the public domain.*<sup>185</sup>

The Federal Circuit, however, in continuing its public use analysis, evaluated whether any commercially motivated activity occurred. This analysis would be more properly introduced under the on sale bar analysis.<sup>186</sup> The court stated that “there is absolutely no evidence in this case of commercially motivated activity by Nichols during the relevant period. Accordingly, the underlying policy against extending the effective term of exclusivity is not offended by a finding that the Nichols invention was not in public use.”<sup>187</sup> The court also mentioned that a “[d]iscussion between employer and employee does not by itself convert an employee’s private pursuit into commercial enterprise with the employer.”<sup>188</sup>

### 1. *Analysis Under Pfaff and the Proposed Test*

#### a. *On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. Was the invention a subject of a commercial sale before the critical date? No. CBS argued that the claimed invention was on sale under § 102(b) because Nichols agreed orally to assign his patent rights in the invention to Moleculon prior to the critical date.<sup>189</sup> The

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<sup>185</sup> *Id.* at 1265-66 (emphasis added).

<sup>186</sup> *See id.* at 1267. The court looks at the on sale bar issue in an unusual context. CBS argued that the claimed invention was on sale under § 102(b) because Nichols agreed, orally, to assign his patent rights in the invention to Moleculon prior to the critical date. The court found that the assignment of patent rights to an invention is not a sale of “the invention” under § 102(b). *See id.* (citing *United States Elec. Light Co. v. Consolidated Elec. Light Co.*, 33 F. 869, 870-71 (S.D.N.Y. 1888); *Scott Paper Co. v. Moore Bus. Forms, Inc.*, 594 F. Supp. 1051, 1075 (D. Del. 1984); *see also* *Federal Sign & Signal Corp. v. Bangor Punta Operations*, 357 F. Supp. 1222, 1237 (S.D.N.Y. 1973)).

<sup>187</sup> *Moleculon Research Corp.*, 793 F.2d at 1266.

<sup>188</sup> *Id.* at 1267.

<sup>189</sup> *See id.* at 1266-67.



court found that the assignment of patent rights to an invention "is not a sale of 'the invention' within the meaning of section 102(b)."<sup>190</sup> Actual commercialization of the invention did not occur until after the critical date.<sup>191</sup>

*b. Public Use Analysis*

The policy behind the public use bar is to prevent what has been dedicated to the public or detrimentally relied on by the public as being in the public domain from becoming part of a patent monopoly. Was there a public use of the invention? Using the proposed test for public use, *Moleculon* probably would have been decided the same way. The court in *Moleculon* carefully asked whether the use was public or private. The court noted that what it saw was the inventor's private use of his own invention for his own enjoyment. Those who saw the invention were the inventor's friends and colleagues who were not likely to and did not detrimentally rely on the invention being in the public domain. Those who knew of the invention, before the critical date, were not those of skill in the art who could take the invention and put it into universal or general use. The use was one that did not remove anything from the public domain. Even though the invention was ready for patenting, because the use was private, the public use bar would be inapplicable.<sup>192</sup>

In *Harrington Manufacturing v. Powell Manufacturing*,<sup>193</sup> the invention was a mechanized tobacco harvester able to accommodate dog-legged or out-of-line tobacco stalks. Before the critical date, one of the inventors, Pickett, contacted several people skilled in the art and showed them how the invention worked. He showed the invention to the president of the defendant's company, a leading agricultural journalist, and two professors who had attempted to build a mechanized tobacco harvester.<sup>194</sup> Also, prior to the critical date, the journalist published an article discussing and giving a price for the harvester.

The inventors argued that their use of the invention before the critical date was experimental. Tobacco leaves ripen from the bottom of the stalk upward. Therefore, when the invention was shown prior to the critical date,

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<sup>190</sup> *Id.* at 1267.

<sup>191</sup> *See id.*

<sup>192</sup> *See id.* at 1266.

<sup>193</sup> *Harrington Mfg. v. Powell Mfg.*, 815 F.2d 1478 (Fed. Cir. 1986).

<sup>194</sup> *Harrington Mfg. v. Powell Mfg.*, 623 F. Supp. 872, 874 (E.D.N.C.), *aff'd* 815 F.2d 1478 (Fed. Cir. 1986).

it had not yet been tested on the lower leaves because those leaves had been previously harvested by a different machine. It was not until after the critical date, when the harvester was tested on the lower leaves, that the invention was finally reduced to practice.<sup>195</sup>

The Federal Circuit used the totality of the circumstances test to evaluate whether there was a public use. First, the court noted that there were no secrecy agreements regarding those who had seen the invention used prior to the critical date. The court noted that secrecy was the opposite of what was sought, since a journalist was contacted.<sup>196</sup> Next, the court focused on the commercial motive attributed to contacting the journalist, Osborne:

[One of the inventors] obviously demonstrated the harvester to [a journalist,] Osborne[,] in order to gain public recognition. In the newspaper article, Osborne not only reported that the harvester flawlessly defoliated the tobacco leaves, but even published an approximate cost of the harvester. This is a clear indication of Pickett's commercial motive.<sup>197</sup>

Instead of analyzing the public use issue separately, the commercial motive/on sale inquiry is commingled in the analysis. The court does not discuss whether it considered the quote of a price for the harvester in a newspaper to be an offer for sale. Such an act flies in the face of the primary policy of the on sale bar, to prevent the extension of a patent monopoly beyond the statutory period.

The court stated that there was no public necessity in requiring the inventor to demonstrate the harvester prior to the critical date.<sup>198</sup> The court, however, does not discuss how showing the harvester to a competitor, an agricultural reporter, and professors in the art could lead to the invention being forfeited or dedicated to the public. In particular, the competitor who was shown the invention built an allegedly infringing harvester that was the basis of the infringement suit.<sup>199</sup> This may be evidence of detrimental reliance on the part of the competitor that the invention was in the public domain.

Finally, the court looked at the experimental use issue. The court noted that the prototype shown before the critical date fell within the scope of the

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<sup>195</sup> See *Harrington*, 815 F.2d at 1480.

<sup>196</sup> See *id.* at 1480-81.

<sup>197</sup> *Id.* at 1481.

<sup>198</sup> See *id.*

<sup>199</sup> See *Harrington*, 623 F. Supp. at 873-74.

relevant claim of the patent. That claim did not require that the lower leaves of the tobacco be harvested.<sup>200</sup> Thus, the argument that the harvester needed to be tested to perfect the claimed invention failed.

## 2. *Analysis Under Pfaff and the Proposed Test*

In *Harrington*, different questions would have been asked under both *Pfaff* and the proposed test.

### a. *On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. Was the invention a subject of a commercial sale before the critical date? Probably. The court did not evaluate whether there was an offer for sale in the newspaper article.<sup>201</sup> This would have to be analyzed under *Pfaff* to satisfy the first prong of the proposed test.

Was the invention ready for patenting? Yes. It was actually reduced to practice. The patent claim in dispute did not require that the lower leaves of the tobacco stalk be harvested. Thus, the argument concerning needing time to harvest the lower leaves was irrelevant. The experimental use doctrine is inapplicable to bar either a sale or public use.

### b. *Public Use Analysis*

The policy behind the public use bar is to prevent what has been dedicated to the public or detrimentally relied on by the public as being in the public domain from becoming part of a patent monopoly. Was there a public use of the invention? Showing the invention to a major competitor, an agricultural journalist, as well as professors in the art evidences forfeiture or dedication of the invention to the public. Such a showing could create public detrimental reliance. For instance, Powell Corporation, the defendant and alleged infringer in *Harrington*, built a similar invention, possibly relying on the presumption that the invention was part of the public domain.<sup>202</sup>

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<sup>200</sup> See *Harrington*, 815 F.2d at 1481.

<sup>201</sup> See *id.* Section 102(b) also prohibits the patenting of an invention that was "patented or described in a printed publication in this or a foreign country . . . more than one year prior to the date of application for patent." 35 U.S.C. § 102(b) (1994). This issue, however, was not raised on appeal. See *Harrington*, 815 F.2d at 1478.

<sup>202</sup> See *Harrington*, 623 F. Supp. at 873-74.

In *Seal-Flex, Inc. v. Athletic Track & Court Construction*,<sup>203</sup> the court combined public use and on sale bar issues. This case concerned an invention of an all-weather athletic running track. The inventor, Maxfield, in association with Ritchie Paving Co. (Ritchie) installed an athletic track at Beloit High School in Beloit, Kansas. Maxfield continued to monitor the condition of the track from May 1981 through spring 1982. Maxfield filed his patent application in August 1982. Seal-Flex, the assignee, sued Athletic Track and Court Construction (“ATCC”) for patent infringement. At trial, the court granted ATCC summary judgment invalidating the subject patents based on an on-sale bar under 35 U.S.C. § 102(b).<sup>204</sup>

Because there was conflicting evidence regarding whether one of Ritchie’s employees made an offer to sell a product from the patented process before the critical date, the court concluded the trial court erred in granting summary judgment. If “the Beloit track required evaluation under actual conditions of weather and use in order to determine whether it would be satisfactory for its intended purpose, then it could not be held as a matter of law that contacts with potential future customers started the one-year bar during that evaluation period.”<sup>205</sup> The court found that material issues of fact existed, precluding summary judgment.<sup>206</sup>

The court discussed the proposition that an inventor cannot, however, avoid the on sale bar simply by continuing to improve on the invention after the sale. Because experimental use and on sale bar issues are not treated as having separate distinct tests, it is often difficult to determine when commercial activity creates a bar. It may be necessary to define when an invention is on sale commercially, separately from determining whether experimentation took place. If the invention could be put into a patentable form, the fact that the inventor is experimenting should not contravene the on sale bar.<sup>207</sup> Judge Bryson, in his concurring opinion, recognized the problem with the circular nature in which these issues have been analyzed

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<sup>203</sup> *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, *appeal after remand*, 172 F.3d 836 (Fed. Cir. 1999).

<sup>204</sup> *See id.* at 1321 (citing *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 870 F. Supp. 753 (E.D. Mich. 1994)).

<sup>205</sup> *Id.* at 1322.

<sup>206</sup> *See id.*

<sup>207</sup> *See id.* at 1325 (Bryson, J., concurring).

An inventor should not be able to sell his invention for commercial purposes, but avoid the on-sale bar by separately conducting tests on his invention. . . . If the . . . transaction constituted an offer to make a commercial sale . . . the on-sale bar should be triggered even if . . . [the inventor] was concurrently conducting tests. . . .

and set forth the following rule: “[I]f the sale or offer in question embodies the invention for which a patent is later sought, a sale or offer to sell that is primarily for commercial purposes and that occurs more than one year before the application renders the invention unpatentable.”<sup>208</sup>

### 3. *Analysis Under Pfaff and the Proposed Test*

#### a. *On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. Was the invention the subject of a commercial sale? It is unclear whether there was a commercial sale because *Seal-Flex* was improperly decided on summary judgment, before genuine issues of material fact could be resolved on the sale issue.<sup>209</sup> On remand, the § 102(b) bar defense was dismissed.<sup>210</sup>

Under the *Pfaff* test, *Seal-Flex* may have been decided differently at the district court level. Even if there were a commercial sale, the invention may not have been ready for patenting if “the Beloit track required evaluation under actual conditions of weather and use in order to determine whether [the track] would be satisfactory for its intended purpose.”<sup>211</sup> Thus, the statutory one-year bar clock would not start running during the evaluation period. If such evidence existed, the invention was not ready for patenting because there was still experimentation. Consequently, there would be no on sale bar.

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<sup>208</sup> *Id.* The Supreme Court, in *Pfaff*, comments that evidence satisfying Judge Bryson’s test:

[M]ight be sufficient to prove that the invention was ready for patenting at the time of the sale if it is clear that no aspect of the invention was developed after the critical date. However, the possibility of additional development after the offer from sale in these circumstances counsels against adoption of [this] rule. . . .

*Pfaff*, 119 S. Ct. at 312 n.14. It should be noted, however, that any sale would create § 102(b) prior art that could be used in the context of an obviousness inquiry under § 103. If the subject matter of a patent application claims an invention is an obvious step from what was on sale before the critical date, the invention would be unpatentable under § 103. *See* 35 U.S.C. § 103 (1994).

<sup>209</sup> There was conflicting evidence concerning whether one of Ritchie’s employees made an offer to sell before the critical date. *See Seal-Flex*, 98 F.3d at 1322.

<sup>210</sup> *See Seal-Flex, Inc. v. Athletic Track & Court Constr.*, No. 91-CV-60494-AA, slip op. (E.D. Mich. Mar. 27, 1997).

<sup>211</sup> *Seal-Flex*, 98 F.3d at 1322.

*b. Public Use Analysis*

The trial court denied summary judgment on the public use issue in this case because genuine issues of fact remained. Thus, the issue was not appealable to the Federal Circuit.<sup>212</sup>

*B. Case Evaluating Experimental Use Instead of Focusing on Whether the Use is Public*

Evaluating whether a use is experimental instead of focusing on whether a use is public diminishes the policies behind the § 102(b) bar. An example of this situation occurred in *Lough v. Brunswick Corp.*<sup>213</sup>

In *Lough*, the inventor, Lough, worked as a repairman at a boat dealership in Sarasota, Florida. While repairing Brunswick boats, he noticed that the upper seal assemblies for stern drives used in aquatic motors had a tendency to corrode. Lough, having only a high school education, invented an upper seal assembly to prevent this corrosion. After much trial and error, Lough made six prototypes on his grandfather's metal lathe. All six prototypes were installed on various marine vehicles, including four of his friends' boats, his own boat, and the owner of the marina's boat, where he worked. Lough did not charge anyone for the use of his invention.<sup>214</sup> Lough testified he gave the prototypes to his acquaintances in order to determine whether his seal assembly invention would work, under different conditions, for at least a year, the normal warranty period.<sup>215</sup> Witnesses testified that "there was no payment for the seal, and that they knew it was a handmade prototype whose performance was being evaluated."<sup>216</sup>

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<sup>212</sup> See *id.* at 1321.

<sup>213</sup> *Lough v. Brunswick Corp.*, 86 F.3d 1113 (Fed. Cir. 1996).

<sup>214</sup> See *id.* at 1123-24.

<sup>215</sup> See *Lough*, 103 F.3d at 1521 (Lourie, J., concurring). Mr. Lough testified he sought more extensive and varied use than that of his own boat.

Well, Jack Wherry's boat constantly sat in the water. My boat, I take—it was on a trailer . . . .

And I explained to Jack what I want to do, I wanted to put a seal in his boat for testing purposes to see if it would last, because his boat sat in the water all the time. And when it comes back to the marina, then I could look at it and I could test—I could, you know, make sure everything in it was just fine.

*Id.*

<sup>216</sup> *Id.* at 1522.

Two years after the prototypes were first made, Lough filed a patent application issuing a year later. After learning of Lough's invention, Brunswick Corporation ("Brunswick") developed an improved upper seal assembly. Lough sued Brunswick for patent infringement. Brunswick counterclaimed for a declaratory judgment alleging, *inter alia*, that the patent was invalid because the invention was in public use prior to the critical date. The jury found infringement. Brunswick made a motion for judgment as a matter of law, which was denied. On appeal, the Federal Circuit reversed the trial court's denial of the judgment as a matter of law and vacated the damage award. The Federal Circuit held that "the jury's determination that Lough's use of the invention was experimental so as to defeat the assertion of public use was incorrect as a matter of law."<sup>217</sup> The court reversed the trial court's denial of Brunswick's motion for judgment as a matter of law.<sup>218</sup> The damage award was vacated.

In *Lough*, both parties agreed that Lough's prototypes were used before the critical date, but the question on appeal was whether the invention was in public use prior to the critical date within the meaning of § 102(b). The court set forth criteria in determining whether a use is considered experimental:

To determine whether a use is "experimental," a question of law, the totality of the circumstances must be considered, including various objective indicia of experimentation surrounding the use, such as the number of prototypes and duration of testing, whether records or progress reports were made concerning the testing, the existence of a secrecy agreement between the patentee and the party performing the testing, whether the patentee received compensation for the use of the invention, and the extent of control the inventor maintained over the testing.

. . . The question framed on this appeal is whether Lough's alleged experiments lacked enough of these required indicia so that his efforts cannot, as a matter of law, be recognized as experimental.<sup>219</sup>

The court found that Lough: (1) did not commercialize his invention; (2) "kept no records of the alleged testing;"<sup>220</sup> (3) did not "inspect the seal

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<sup>217</sup> *Lough*, 86 F.3d at 1122.

<sup>218</sup> *See id.* at 1123.

<sup>219</sup> *Id.* at 1120-21 (citing *TP Lab., Inc. v. Professional Positioners*, 724 F.2d 965, 971-72 (Fed. Cir. 1984)); *see also Sinskey v. Pharmacia Ophthalmics, Inc.*, 982 F.2d 494, 498 (Fed. Cir. 1992); *Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1564 (Fed. Cir. 1987).

<sup>220</sup> *Lough*, 86 F.3d at 1121.

assemblies after they had been installed by other mechanics;<sup>221</sup> and (4) did not “maintain any supervision and control over the seals during the alleged testing.”<sup>222</sup> In finding these facts and applying the aforementioned test, the court concluded that Lough’s use was not experimental.<sup>223</sup> Thus, it was a public use violation under § 102(b).

The problem with the court’s analysis is that the court looks at the traditional factors surrounding the totality of the circumstances test without adequately reflecting on the policies underlying such test. The Federal Circuit applied the totality of the circumstances test in *Lough* as if it were an exception to public use, rather than a negation. The court set forth a standard for experimental use, defining factors required in order for this use to be experimental. Evaluating whether a use is public depends on “how the totality of the circumstances of the case comports with the policies underlying the public use bar,”<sup>224</sup> and does not depend on the experimental use exception to the bar.<sup>225</sup>

These policies include:

- (1) discouraging the removal, from the public domain, of inventions that the public reasonably has come to believe are freely available;
- (2) favoring the prompt and widespread disclosure of inventions;
- (3) allowing the inventor a reasonable amount of time following sales activity to determine the potential economic value of a patent; and
- (4) prohibiting the inventor from commercially exploiting the invention for a period greater than the statutorily prescribed time.<sup>226</sup>

Although the court cited these policies, it did not analyze them in terms of whether or not Lough’s use was public. The court did not ask whether Lough’s use was a public one as defined by the statute. The court “set up separate requirements for a separate doctrine of experimental use, instead of analyzing the case under the public use criteria.”<sup>227</sup> This is an analytical problem because the court looked at the traditional factors surrounding the totality of the circumstances test without adequately reflecting on the

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<sup>221</sup> *Id.*

<sup>222</sup> *Id.*

<sup>223</sup> *See id.* at 1122.

<sup>224</sup> *Id.* at 1119 (quoting *Tone Bros. v. Sysco Corp.*, 28 F.3d 1192, 1198 (Fed. Cir. 1994)).

<sup>225</sup> *See id.*

<sup>226</sup> *Id.* (quoting *Tone Bros.*, 28 F.3d at 1198).

<sup>227</sup> MARTIN J. ADELMAN ET AL., CASE AND MATERIALS ON PATENT LAW 243-44 (1998).



policies underlying such a test. Experimental use is merely one way in which a use is not public.<sup>228</sup> The court required the traditional factors for experimental use to be met. If such factors were not met, the use was a public one. Thus, if it is not experimental use, it must be a public use. In essence, the court said the negation to experimental use is public use.

This application of the law is not found anywhere in the statute or the case law. The term "experimental use" does not appear anywhere in § 102(b).<sup>229</sup> Therefore, a use is not required to be experimental in order to evade a public use bar under § 102(b). Instead of resolving whether the use was forfeited or dedicated to the public, the court applied the totality of the circumstances test to determine whether Lough's use was experimental.<sup>230</sup>

Lough invented an upper seal assembly that would prevent corrosion and solve an old problem. This invention, however, took time to test under varying conditions, much like the invention in *City of Elizabeth v. American Nicholson Pavement Co.*<sup>231</sup> Unlike *City of Elizabeth*, however, there were no confidentiality agreements between Lough and his acquaintances. As in *Moleculon*, no confidentiality agreements seemed to have been necessary because there was no evidence that Lough's invention was in any way ever known or dedicated to the public. Like in *City of Elizabeth*, Lough installed the seals himself, so no workmen or others skilled in the art saw the invention.<sup>232</sup>

There is testimony that Lough's acquaintances knew the purpose for installing the seals was to determine if corrosion would occur. Lough relied on his relationship with these acquaintances to keep his invention confidential. Lough alleged that his prototypes were being used for experimental purposes and were unlikely to be seen by the public. The court ignored the importance of whether the prototypes were to be seen by the public.<sup>233</sup> The court quoted *Egbert v. Lippmann*<sup>234</sup> to support its position:

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<sup>228</sup> See *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1265 (Fed. Cir. 1986) (citing the trial court opinion which states that private use of one's own invention is permissible).

<sup>229</sup> See *Lough v. Brunswick Corp.*, 103 F.3d 1517, 1518 (Fed. Cir. 1997) (Lourie, J., concurring) (stating that "[e]xperimental use is not of course a term of the statute [102(b)]").

<sup>230</sup> See *Lough*, 86 F.3d at 1119.

<sup>231</sup> *City of Elizabeth v. American Nicholson Pavement Co.*, 97 U.S. 126 (1877).

<sup>232</sup> See *Lough*, 86 F.3d at 1121.

<sup>233</sup> See *id.* at 1122.

<sup>234</sup> *Egbert v. Lippmann*, 104 U.S. 333 (1881).

[S]ome inventions are by their very character only capable of being used where they cannot be seen or observed by the public eye. An invention may consist of a lever or spring, hidden in the running gear of a watch, or of a ratchet, shaft, or cog-wheel covered from view in the recesses of a machine for spinning or weaving. Nevertheless, if its inventor *sells* a machine of which his invention forms a part, and allows it to be used without restriction of any kind, the use is a public one.<sup>235</sup>

In this quote, however, the critical word is “sells.” In *Lough*, there is no evidence that Lough commercialized his invention.<sup>236</sup> It makes sense and is consistent with the principles outlining the public use and on sale bars that commercializing an invention that inherently cannot be seen by the public is a § 102(b) public use bar violation.<sup>237</sup> One of the critical policies behind the § 102(b) on sale bar is to prohibit the inventor from “commercially exploiting the invention for a period greater than the statutorily prescribed time.”<sup>238</sup>

The facts in *Egbert* and *Lough* can easily be distinguished, however. In *Egbert*, the invention was complete at a time before the critical date; it was ready for patenting.<sup>239</sup> Barnes invented the corset-springs in 1855 and did not apply for a patent until March 1866. During that time “the invention had found its way into general, and almost universal, use.”<sup>240</sup> Having realized the value of his invention, Barnes “attempted to resume, by his application, what by his acts he had clearly dedicated to the public.”<sup>241</sup> Unlike in *Lough*, the Court analyzed whether the invention had been publicly seen and consequently abandoned to the public. Clearly, the invention in *Egbert* had been dedicated to the public and thus was within the public domain by the time the inventor filed for patent. The public had detrimentally relied that the invention was in the public domain as it was in general, if not universal use.<sup>242</sup>

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<sup>235</sup> *Lough*, 86 F.3d at 1122 (quoting *Egbert*, 104 U.S. at 336) (emphasis added).

<sup>236</sup> *See id.* at 1121.

<sup>237</sup> *See Metallizing Eng'g v. Kenyon Bearing & Auto Parts, Inc.*, 153 F.2d 516, 519-20 (2d Cir. 1946).

<sup>238</sup> *Tone Bros. v. Sysco Corp.*, 28 F.3d 1192, 1198 (Fed. Cir. 1994) (citations omitted).

<sup>239</sup> *See Egbert*, 104 U.S. at 337 (stating that the corset-steels “were not presented for the purpose of experiment, nor to test their qualities” and “[t]he invention was at the time complete, and there is no evidence that it was afterwards changed or improved”).

<sup>240</sup> *Id.*

<sup>241</sup> *Id.*

<sup>242</sup> *See id.*

In addition, there is no evidence that Lough was trying to extend his monopoly period beyond that which is statutorily provided for under the patent laws. He did not charge anyone for the use of the seals. He engaged in no market testing to gain an unfair competitive advantage over competitors beyond that which is provided through the patent monopoly.<sup>243</sup>

The Federal Circuit in *Lough* did not ask the critical questions: were Lough's upper seal assemblies forfeited or dedicated to the public, and did the public rely on the invention being in the public domain? Instead, the Federal Circuit focused on, inter alia, the type of records Lough kept in determining whether the invention was under the inventor's control.<sup>244</sup> Emphasizing the need to keep records is problematic because it is uncertain what type of records for testing would have satisfied the court. This invention is for seal assemblies. It is possible that no news is good news. If the seals work, what kind of feedback is expected? Whether or not Lough kept records should not be dispositive. In any case, different standards of recordkeeping may apply to various scientific areas. For example, chemical and biological inventions may require daily reports. Electrical and mechanical inventions, however, may only need monthly or weekly reports. This kind of analysis is unnecessary if the court simply asks whether the invention was dedicated to the public or whether the public detrimentally relied that the invention had been put into the public domain.

In addition, the Federal Circuit focused on whether Lough had engaged in confidentiality agreements with the people to whom he furnished his invention. The court looked for agreements<sup>245</sup> but did not inquire whether confidentiality was actually obtained. Even if Lough engaged in confidentiality agreements, if the invention found its way into the public domain such that the public had detrimentally relied on the invention being in the public domain, the use would still be considered a public one. Such a disclosure, however, would give Lough an excellent contract claim against those who divulged his secrets.

### 1. *Analysis Under Pfaff and the Proposed Test*

Using the new general rule of law test for public use, *Lough* probably would have been decided differently.

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<sup>243</sup> See *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1121 (Fed. Cir. 1996).

<sup>244</sup> See *id.* at 1122.

<sup>245</sup> See *id.* at 1120-23.

*a. On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. Was the invention a subject of a commercial sale? Lough did not charge anyone for the prototypes of his invention, nor did he sell any seal assemblies before the critical date.<sup>246</sup>

*b. Public Use Analysis*

The policy behind the public use bar is to prevent what has been dedicated to the public or detrimentally relied on by the public as being in the public domain from becoming part of a patent monopoly. Was there a public use of the invention? There was no evidence that Lough's invention was in any way ever known or dedicated to the public. Lough was the only one who installed the seals,<sup>247</sup> unlike in *Hall v. Macneale*,<sup>248</sup> where various workmen assembled the safes embodying the invention.<sup>249</sup> Lough did not share how the seals worked with anyone. The uses were unlikely to be seen by the public. In fact, there was no evidence that the invention was seen or in anyway shown to the public.<sup>250</sup>

Because there was no sale and no public use, whether the invention was ready for patenting need not be determined in order to avoid the § 102(b) bar to patentability. Nonetheless, there is evidence that the invention was not ready for patenting before the critical date. In order to determine whether the seals worked, Lough needed to test them under differing conditions.<sup>251</sup>

*C. Design Patent Cases*

Experimental use is an issue that has complicated public use and on sale analysis in utility patent cases, as well as in design patent cases. Patents for designs may be granted to "[w]hoever invents any new, original and ornamental design for an article of manufacture."<sup>252</sup> A design patent

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<sup>246</sup> *See id.* at 1116.

<sup>247</sup> *See id.* at 1121.

<sup>248</sup> *Hall v. Macneale*, 107 U.S. 90, 97 (1882).

<sup>249</sup> *See id.*

<sup>250</sup> *See Lough*, 86 F.2d at 1122.

<sup>251</sup> *See id.* at 1119.

<sup>252</sup> 35 U.S.C. § 171 (1994). "Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title. The provisions of this title relating to

protects the ornamental design that is claimed as the invention. The claim is an illustration of the design that defines the property of the invention. Because it is difficult to envision why a design would need to be experimented upon to perfect the design, the experimental use doctrine has been applied inconsistently.<sup>253</sup>

In *In re Mann*,<sup>254</sup> the invention was drawn to a design for a wrought iron table. The patent claim, "as in all design cases . . . [was] limited to what . . . [was] shown in the application drawings."<sup>255</sup> A table embodying the design in the drawings was publicly displayed at a trade show in the United States prior to the critical date. The Board of Patent Appeals and Interferences affirmed the examiner's rejection of the design patent claim as being in public use in violation of § 102(b). The inventor, Mann, claimed the "'table was not used in its natural and intended way' because it was 'merely on display.'"<sup>256</sup> Thus, the use was not public. Even if in public, Mann argued that showing the table was an experimental use.<sup>257</sup>

The court disagreed, finding that there is "no way in which an ornamental design for an article of manufacture can be subject to the 'experimental use' [doctrine] . . . applicable in the case of . . . [utilitarian] machines, manufactures, or processes."<sup>258</sup> The court interpreted the use as merely a way to gauge people's reactions to the design. "[W]hether or not they like it is not 'experimentation' in that sense."<sup>259</sup> The court found that even if the design is changed after the market testing demonstrated that the design had no appeal, the new design encompassed a different patent claim; the original design remained unchanged.<sup>260</sup>

## 1. *Analysis Under Pfaff and the Proposed Test*

### a. *On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. If the table is displayed at a trade show, it is

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patents for inventions shall apply to patents for designs, except as otherwise provided." *Id.* The term for a design patent is "fourteen years from the date of grant." *Id.* § 173.

<sup>253</sup> See *supra* notes 213-275 and accompanying text.

<sup>254</sup> *In re Mann*, 861 F.2d 1581 (Fed. Cir. 1988).

<sup>255</sup> *Id.* at 1582.

<sup>256</sup> *Id.* at 1581.

<sup>257</sup> See *id.*

<sup>258</sup> *Id.* at 1582.

<sup>259</sup> *Id.*

<sup>260</sup> See *id.*

probably being offered for sale. This violates the purpose behind the bar as it is extending the monopoly period. Is the design ready for patenting? Yes. If the table encompassing the design is ready to be sold at a trade show, the design works for its intended purpose as a table.

*b. Public Use Analysis*

The policy behind the public use bar is to prevent what has been dedicated to the public or detrimentally relied on by the public as being in the public domain from becoming part of a patent monopoly. Was there a public use of the invention? Displaying the table at a trade show is a use likely to place the design into general or universal use. Those in similar trades can view the table and gain access to the design. The inventor is using the trade show to obtain the public's reaction to the design. The use in this case is not experimental because the table works for its intended purpose. There is no design flaw making the table unfit to function as a table.

There may be situations, however, in which modifications to a design patent are essential to the utility of the article of manufacture for which the patent covers. Experimenting with these design changes may negate public use in certain situations.

The seminal case for experimental use in design cases is *Tone Bros. v. Sysco Corp.*<sup>261</sup> Tone Brothers ("Tone") was engaged in testing a new plastic spice container versus an existing tin spice container. To do its testing, Tone randomly selected ten college students majoring in dietetics. The students, however, did not sign confidentiality agreements. The testing covered functional features of the containers. For example, the students were asked how the containers felt while holding them, "which container they liked best and why; and . . . how the containers felt when shaking out their contents."<sup>262</sup> None of the questions asked the students if they liked how the design looked. The testing occurred prior to the critical date. Sysco, the alleged infringer, argued that Tone's use was a public one under § 102(b), invalidating its patent. Tone argued the use was experimental, negating public use.<sup>263</sup>

The court used the totality of the circumstances test to determine whether there was a public use. The court noted that "[e]vidence of experimentation is part of the totality of the circumstances considered in

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<sup>261</sup> *Tone Bros. v. Sysco Corp.*, 28 F.3d 1192 (Fed. Cir. 1994).

<sup>262</sup> *Id.* at 1197.

<sup>263</sup> *See id.* at 1197-98.

the public use inquiry.<sup>264</sup> The court adopted the method of evaluating public use from *TP Laboratories, Inc. v. Professional Practitioners*,<sup>265</sup> asking only one question: "was there a public use within the meaning of section 102(b)?"<sup>266</sup>

The court differentiated between the use that occurred in *In re Mann*,<sup>267</sup> where the display was "directed toward generating consumer interest in the aesthetics of the design,"<sup>268</sup> and the use in this case, where the display was directed towards improving the functional aspects of the structure embodying the design. Here, the court determined displaying the design was for "testing the functional features of the design."<sup>269</sup> This is "experimentation directed to functional features of a product also containing an ornamental design [and] may negate what otherwise would be a public use . . . [under the statute]."<sup>270</sup>

In its analysis, however, the issues of on sale and public use were discussed together and intertwined. As the court made distinctions between *In re Mann* and *Tone Bros.*, the court mixed the underlying principle of the on sale bar in discussing public use:

[T]he display of the design in *Mann*, unlike the display in the present case, appears to have been for a purpose directly contrary to the *public use bar policy* of preventing an *extension of the patent term* through pre-application *commercial exploitation*. Given the fact that the wrought iron table design in *Mann* was exhibited at a trade show, an *exploitative purpose* seems to have been present. Because of the commercial nature of a trade show, it must be assumed that the table was ready to be sold to consumers and that the manufacturer had already made sure that the ornamental design of the table did not detract from the practical functioning of the table. In the present case, however, there appears to have been a lack of exploitative purpose. The design was shown to students, not at a trade show, and . . . the students did not know the identities of the companies associated with the various designs they were shown. In addition, it appears that the showing was for the purpose of testing the functional features of the design.<sup>271</sup>

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<sup>264</sup> *Id.* at 1198.

<sup>265</sup> *TP Lab., Inc. v. Professional Positioners*, 724 F.2d 965 (Fed. Cir. 1984).

<sup>266</sup> *Tone Bros.*, 28 F.3d at 1198.

<sup>267</sup> *In re Mann*, 861 F.2d 1581 (Fed. Cir. 1988).

<sup>268</sup> *Tone Bros.*, 28 F.3d at 1199 (citing *In re Mann*, 861 F.2d at 1581).

<sup>269</sup> *Id.*

<sup>270</sup> *Id.* at 1200.

<sup>271</sup> *Id.* at 1199 (emphasis added).

The public use and on sale bars have different policy goals. Each should be discussed separately to maintain the integrity of these issues.

## 2. *Analysis Under Pfaff and the Proposed Test*

### a. *On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. Was there a commercial sale of the article manufacture encompassing the design? No. The containers were donated to the students for testing. No commercialization took place.

Was the invention ready for patenting? The purpose of the testing was to see if the new plastic containers were an improvement over the existing tin containers. The testing focused on the functional aspects of the invention. The design covered the appearance of the containers, which served a utilitarian purpose. If the purpose could not be satisfied using this design, it would need to be changed so that the containers would work for their intended purpose. Thus, the use was experimental.

### b. *Public Use Analysis*

The policy behind the public use bar is to prevent what has been dedicated to the public or detrimentally relied on by the public as being in the public domain from becoming part of a patent monopoly. Was there a public use of the article of manufacture encompassing the design before the critical date? The use was part of testing, which implies that the inventor is not dedicating the invention to the public. The students, however, were not required to keep the testing confidential. There were only ten students doing the testing, though.<sup>272</sup> These were not people in the business of making containers, as in *In re Mann*, where the display was at a trade show. It is unlikely that such a use would give rise to the public detrimental reliance that the invention was in the public domain.

Even if the use were considered public, the invention was not ready for patenting. Thus, the use was not public. (The experimental use analysis is the same as in the aforementioned on sale analysis).

In contrast to the holding in *Tone Bros.*,<sup>273</sup> the Federal Circuit, in *Continental Plastic Containers v. Owens Brockway Products, Inc.*,<sup>274</sup> held

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<sup>272</sup> See *id.* at 1197.

<sup>273</sup> See *id.* at 1200 (holding that “experimentation directed to functional features of a product to which an ornamental design relates may negate . . . public use within the meaning of section 102(b)”).

<sup>274</sup> *Continental Plastic Containers v. Owens Brockway Plastic Prods., Inc.*, 141 F.3d 1073 (Fed. Cir. 1998).



that “[s]ince design inventions are reduced to practice as soon as an embodiment is constructed, . . . experimental use negation is virtually inapplicable in the design patent context.”<sup>275</sup> The court expressed concern over allowing “entities to increase the life of their design patents merely by tarrying over the production of the article of manufacture.”<sup>276</sup>

In *Continental Plastic*, Continental Plastic Containers (“Continental”) and Owens-Brockway Plastic Products, Inc. (“Owens”) were competitors in wholesaling plastic juice containers. Continental owned a design patent on an “ornamental design for an exterior surface of a side wall for a juice container.”<sup>277</sup> Continental sued Owens for, inter alia, design patent infringement. Owens alleged Continental had sold or offered to sell containers embodying the design patent before the critical date, February 16, 1992. The trial court granted Owens summary judgment motion, holding Continental’s patent invalid under § 102(b).<sup>278</sup> The Federal Circuit affirmed.<sup>279</sup>

Continental offered the patented design to customers and agreed to supply L&A Juice, Inc. (“L&A”) with bottles embodying the patented design before the critical date, February 16, 1992. In 1990, before Continental’s relationship with L&A began, Continental had presented drawings of a similar design to Tree Top, another potential customer. Continental began similar drawings and presented seven of these drawings to L&A. The first drawing was sent on October, 18 1991, the last was dated August 19, 1992. After several models were produced, a prototype production mold was shipped to Continental on February 10, 1992, before the critical date.<sup>280</sup>

The trial court found that the design was revised seven times to accommodate the manufacturing difficulties of the design after the critical date. The trial court, however, noted that the changes to the drawings were so minute that Continental’s production designer had to use a measuring instrument to distinguish among the seven drawings. Continental argued that the patent was not subject to the on sale bar because, until after the critical date, Continental was unable to produce a functionally operable article embodying the design.<sup>281</sup> On appeal, Continental requested the

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<sup>275</sup> *Id.* at 1079.

<sup>276</sup> *Id.*

<sup>277</sup> *Id.* at 1075-76.

<sup>278</sup> See *Continental Plastic Containers v. Owens Brockway Plastic Prods., Inc.*, No. 95 C 4670, 1996 U.S. Dist. LEXIS 1793, at \*2 (N.D. Ill. Feb. 16, 1996).

<sup>279</sup> See *Continental Plastic*, 141 F.3d at 1073.

<sup>280</sup> See *id.* at 1077.

<sup>281</sup> See *id.*

Federal Circuit “to extend *Tone Bros.* . . . to hold that any adjustments to functional features of the article of manufacture suspends the application of a section 102(b) bar for the purpose of claiming the ornamental design.”<sup>282</sup>

The Federal Circuit refused to extend *Tone Bros.* to on sale bar cases. It noted:

*Tone Bros.* is a “public use” case. We see no reason to extend the analysis to the “on-sale” context. “Public use” and “on-sale” bars, while they share the same statutory basis, are grounded on different policy emphases. The primary policy underlying the “public use” case is that of detrimental public reliance, whereas the primary policy underlying an “on-sale” case is that of prohibiting the commercial exploitation of the design beyond the statutorily prescribed time period. . . . [I]n *Tone Bros.* . . . the display was not contrary to the policy of detrimental public reliance because the display was for the sole purpose of experimentation. In contrast, Continental’s agreement to sell the patented design is an explicit commercial exploitation of the claimed design outside of the generous one year grace period.<sup>283</sup>

The court ultimately held that design inventions are reduced to practice as soon as the embodiment is constructed, thus making the experimental use negation virtually inapplicable in the design patent context. Consequently, the summary judgment invalidating Continental’s patent under § 102(b) was affirmed.<sup>284</sup>

The problem with the court’s analysis stems from distinguishing *Continental Plastic* from *Tone Bros.* because the former is an on sale bar case and the latter is a public use case. Because there is commercialization in *Continental Plastic*, unlike in *Tone Bros.*, the court concluded that the sale is a violation of the underlying policy, prohibiting extending the patent beyond the statutory period.<sup>285</sup> In effect, the court did not apply the experimental use analysis from *Tone Bros.*, because of the distinction between public use policy and on sale bar policy. Although both have different policy distinctions, whether a use is experimental is not encompassed in these distinctions. Experimental use should be evaluated in determining whether or not the invention is ready for patenting. Under

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<sup>282</sup> *Id.* at 1078.

<sup>283</sup> *Id.* at 1078-79.

<sup>284</sup> *See id.* at 1079-80.

<sup>285</sup> *See id.* at 1080.

*Pfaff*, an invention that is not ready for patenting, cannot be the subject of an on sale bar.<sup>286</sup> In addition, the existence of commercialization should not eliminate the possibility of finding a use or sale to be for experimental purposes. Because the court rejects the *Tone Bros.* holding that there could be experimentation in testing the functional aspects of a design, the court determines whether a bar to patentability is appropriate in this case. To accomplish this end, the court must look at whether the design from which the article was sold was ready for patenting.

### 3. *Analysis Under Pfaff and the Proposed Test*

#### a. *On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. Was the invention the subject of a commercial sale? Yes. The transaction between Continental and L&A was primarily for commercial purposes. Continental looked to both Tree Top and L&A to be potential customers.<sup>287</sup>

Was the invention ready for patenting before the critical date? Perhaps. A design patent is directed to the appearance of an article of manufacture. If an article of manufacture serves a utilitarian purpose, it is logical that the design should allow the article to function for its intended purpose.<sup>288</sup> "Thus the bar to patenting should not accrue until the design of the article is successfully completed. The design of an article of manufacture is not complete until the design is useful, that is, until the article as designed has been shown to be capable of its intended use."<sup>289</sup> In this case, there were seven revisions of the drawings. The trial court, however, found that the changes to the drawings were so insignificant as to not make any meaningful distinction among the drawings.<sup>290</sup> Because this case was decided on summary judgment, there are not enough facts in the record to determine whether or not the design was ready for patenting. If the court had extended the *Tone Bros.* holding to this case, it probably would have remanded the case. On remand, the trial court would need to determine whether the invention was ready for patenting when the containers were sold prior to the critical date.

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<sup>286</sup> See *Pfaff v. Wells Elecs., Inc.*, 119 S. Ct. 304, 311-12 (1998).

<sup>287</sup> See *Continental Plastic*, 141 F.3d at 1077.

<sup>288</sup> See *id.* at 1081 (Newman, J., concurring in part and dissenting in part).

<sup>289</sup> *Id.* at 1081-82.

<sup>290</sup> See *id.* at 1078.

*b. Public Use Analysis*

Public use was not an issue in *Continental Plastic*.

In *Allied Colloids Inc. v. American Cyanamid Co.*,<sup>291</sup> the invention covered polymeric flocculents and the method of treating sewage using these materials. Colloids contacted the City of Detroit in order to test samples of municipal waste. At Colloids' invitation, Detroit sludge was sent to England, where the invention was developed, for testing. After the tests were favorable, twenty samples of Colloids' sewage treatment materials were brought to Detroit to test fresh Detroit sewage. This testing occurred April 16-17, 1985, one week prior to the critical date of April 23, 1985.<sup>292</sup> The tests were promising and further laboratory tests were conducted in July 1985. Plant-scale trials were done in December 1985.<sup>293</sup>

The trial court held the April 16-17 tests were a public use because the principal grounds for the tests had commercial motives. No confidentiality agreements between the parties were drawn. The trial court invalidated the patents under the public use bar as a matter of law.<sup>294</sup> The Federal Circuit disagreed, applying the totality of the circumstances test.<sup>295</sup>

First, the court rejected the trial court's assertion that the experimentation was commercially motivated: "Commercial purpose underlies virtually every contact between inventor and potential customer. When testing an invention entails customer contact, that does not convert an otherwise experimental purpose into a public use."<sup>296</sup> Next, the court recognized the tests were not observed by anyone other than Colloids' employees. There was testimony "that no one from the City of Detroit was involved in the tests or knew what products were being tested."<sup>297</sup> Although no confidentiality agreements were signed, "no information of a confidential nature was communicated to others."<sup>298</sup>

The court also stated Colloids did not receive payment from the City of Detroit for any of the tests.<sup>299</sup> In evaluating experimental use, the court

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<sup>291</sup> *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570 (Fed. Cir. 1995).

<sup>292</sup> *See id.* at 1573.

<sup>293</sup> *See id.*

<sup>294</sup> *See id.* at 1573-74.

<sup>295</sup> *See id.* at 1574-75.

<sup>296</sup> *Id.* at 1575.

<sup>297</sup> *Id.*

<sup>298</sup> *Id.*

<sup>299</sup> *See id.* at 1576.

noted that Colloids prepared detailed records of tests, indicating experimentation.<sup>300</sup>

#### 4. *Analysis Under Pfaff and the Proposed Test*

##### a. *On Sale Bar Analysis Under Pfaff*

The policy behind the on sale bar is to prohibit extending patent rights beyond the statutory period. Was the invention a subject of a commercial sale? No. Colloids did not receive payment from the City of Detroit for any of these tests.<sup>301</sup>

##### b. *Public Use Analysis*

The policy behind the public use bar is to prevent what has been dedicated to the public or detrimentally relied on by the public as being in the public domain from becoming part of a patent monopoly. Was there a public use of the invention before the critical date? No. There is no evidence that the testing was in any way forfeited or dedicated to the public. Only Colloids' employees conducted the testing.<sup>302</sup>

Was the invention ready for patenting before the critical date? Because there is neither a sale nor a public use, whether the invention is ready for patenting need not be addressed. Nevertheless, there is evidence that the invention was not ready for patenting. The testing included various stages of testing, such as: laboratory testing on old sewage, laboratory testing on fresh sewage, and plant-scale testing. Some of the testing occurred prior to the critical date and some afterwards. Although not dispositive, Colloids prepared detailed records of the tests.<sup>303</sup>

### CONCLUSION

In order to provide the public with proper notice and define the boundaries of legally permissible conduct, the law needs to provide certainty and predictability. This is particularly true in patent cases where a significant property interest is at stake. Consistency in judicial decisionmaking is critical in advancing public confidence in the rule of

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<sup>300</sup> *See id.*

<sup>301</sup> *See id.*

<sup>302</sup> *See id.* at 1575.

<sup>303</sup> *See id.* at 1573, 1575-76.

law. In order to achieve consistency, similarly situated cases should enjoy comparable outcomes. Such an approach evinces the appearance of equal treatment thereby promoting a sense of justice.

The Court of Appeals for the Federal Circuit, however, has strayed from rendering this type of consistency in interpreting 35 U.S.C. § 102(b)<sup>304</sup> in public use and on sale bar cases. Historically, the Supreme Court devoted attention to the underlying policies regarding the public use and on sale bars in § 102(b). Adhering to the purposes behind the bars, the Court maintained two lines of analysis consistent with the statutory division between the public use and on sale bars.<sup>305</sup> The Federal Circuit, however, has deviated from that approach. Instead, the court has developed a totality of the circumstances approach in its analysis.<sup>306</sup> Although striving to be sensitive to the equities in each case, this totality approach has led to a blurring of the public use and on sale issues. This methodology failed to consistently elucidate the policies behind the public use and on sale bars. Consequently, this approach leaves too much room for judicial discretion that could lead to inconsistent and unpredictable decisions.

In *Pfaff v. Wells Electronics, Inc.*,<sup>307</sup> the Supreme Court rejected the totality of the circumstances test in on sale cases, using a more rule-based approach in its analysis. In doing so, the Court replaced the totality of the circumstances test with a more concrete general rule of law to create added predictability in determining when a sale has transpired.<sup>308</sup>

Although, in *Pfaff*, the Supreme Court removed the totality of the circumstances test in on sale bar cases, this shift did not address the remaining and more difficult public use strand of § 102(b). This Article provides an extension of the *Pfaff* approach and a specific rule that reinvigorates the historic distinction between public use and on sale issues, consequently enabling cases to be decided more consistently. After reviewing the early Supreme Court cases<sup>309</sup> and policies, as well as the Federal Circuit cases,<sup>310</sup> this Article concludes that, after *Pfaff*, a general rule of law is needed to determine public use in patent cases.

Historically, the on sale and public use bars to patentability have been read together or analyzed in combination. In *Pfaff*, the Supreme Court

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<sup>304</sup> 35 U.S.C. § 102(b) (1994).

<sup>305</sup> See *supra* Part II.

<sup>306</sup> See *supra* Part III.

<sup>307</sup> *Pfaff v. Wells Elecs., Inc.*, 119 S. Ct. 304 (1998).

<sup>308</sup> See *id.* at 311-12.

<sup>309</sup> See *supra* Part II.

<sup>310</sup> See *supra* Part III.

eliminated the totality of the circumstances test from the on sale bar analysis. In doing so, the Court replaced this test with a more concrete general rule of law to create predictability in resolving when a sale has transpired. This test has two prongs that determine when a sale has occurred: (1) “the product must be the subject of a commercial offer for sale; . . . [and (2)] the invention must be ready for patenting.”<sup>311</sup> The Court, however, did not address how the test for public use is affected by this ruling, as public use was not an issue in *Pfaff*.<sup>312</sup> Because the on sale and public use bars have been treated together, the elimination of the totality of the circumstances test for one necessarily affects the other.

Because the on sale and public use bars have been analyzed in combination, it is necessary to eliminate the current totality of the circumstances test used to determine whether there has been a public use in violation of § 102(b). Not only has the analysis inappropriately focused on whether the use is experimental rather than public, the test may be overly vague.

This Article’s proposed test for public use is: (1) the invention must be dedicated to the public or there must be detrimental public reliance that the invention is in the public domain; and (2) the invention must be ready for patenting. This test nearly parallels the *Pfaff* test, replacing the first prong with the policies behind the public use bar. The second prong is identical to the *Pfaff* test. The proposed test recognizes that the public use and on sale bars have the same statutory basis, but treats them as distinct and separate issues.

While preserving the experimental use doctrine’s effects, the proposed test properly focuses on whether or not the use is a public one rather than whether or not the use is experimental. In other words, the question should be whether the invention has been forfeited or dedicated to the public or whether the public has detrimentally relied on the invention being in the public domain.

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<sup>311</sup> *Pfaff*, 119 S. Ct. at 311-12. The second prong:

may be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.

*Id.* at 312.

<sup>312</sup> The Court stated that “[t]he experimental use doctrine . . . has not generated concerns about indefiniteness.” *Id.* (citing William C. Rooklidge & Stephen C. Jensen, *Common Sense, Simplicity and Experimental Use Negation of the Public Use and On Sale Bars to Patentability*, 29 J. MARSHALL L. REV. 1, 29 (1995)).