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#### NOTES

# ONE SIZE DOES NOT FIT ALL: KEEPING THE "TOTALITY OF THE CIRCUMSTANCES" TEST FOR PUBLIC USE CASES AFTER *PFAFF*AND *SMITHKLINE*

Michele M. Glessner\*

#### Introduction

From the time the United States was born, our Founding Fathers recognized the importance of authorship and invention. Article I of the Constitution empowers Congress to make laws to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." The "Science" part of this authorization led to the development of copyright law, and the "useful Arts" portion was the seed for the patent system.

The purpose of patent law is to promote the progress of society; therefore, "[i]t is the public interest which is dominant in the patent system." To accomplish this goal, however, the patent system creates a compromise among the interests of the inventor, the U.S. govern-

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<sup>1</sup> U.S. Const. art. I, § 8, cl. 8.

<sup>2</sup> Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661, 665 (1944).

ment, and the public.<sup>3</sup> A patent essentially gives the inventor a monopoly of limited duration over the invention. The exclusive rights conferred by the government are a reward for the time, money, and effort the inventor expended in pursuit of the innovation. To obtain this reward, however, the inventor must fully disclose the invention so that others may build upon it, and the progress may continue. The public benefits from a higher standard of living and new employment opportunities. In addition, when the term of the patent has expired, the technology falls into the public domain, free for anyone to use.<sup>4</sup>

At the same time, the law recognizes that the public has certain rights that must be weighed against those of the inventor. For example, once the public is exposed to a new design in such a way that it expects free access to the product, the invention belongs in the public domain, and the inventor no longer has a right to claim a monopoly over it. Similarly, the inventor cannot keep the invention out of the public domain indefinitely and is thus given a limited period of time in which to commercially benefit from a monopoly on the invention.<sup>5</sup>

Over the years, these ideas of fairness to both the inventor and the public evolved into the statutory provisions governing public use and sale codified in 35 U.S.C. § 102. Known as the "public use" and "on sale" bars, these provisions attempt to strike a balance between the interests of the inventor and those of the public. The inventor is allowed a grace period of one year to file for a patent from the first time the invention is used publicly or offered for sale, but at the same time the inventor is prohibited from indefinitely extending the term of the patent through delayed filing.

The courts have often been faced with the difficult task of determining whether an inventor has forfeited the right to file for a patent on the invention due to the public use or on sale bars. Several tests have been used throughout the years to evaluate the existence of a public use or sale. At times the test for the on sale bar has been identical to that of public use; at times they have been different.

Until the Supreme Court decided *Pfaff v. Wells Electronics, Inc.*,6 the courts had been using the "totality of the circumstances" test for

<sup>3</sup> Kristen E. Gerdelman, Comment, Subsequent Performance of Process Steps by Different Entities: Time To Close Another Loophole in U.S. Patent Law, 53 EMORY L.J. 1987, 1989-90 (2004).

<sup>4</sup> Id. at 1990.

<sup>5</sup> See Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 63 (1998) ("[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.").

<sup>6 525</sup> U.S. 55.

both the public use and on sale bars. In its holding in *Pfaff*, the Supreme Court changed the standard for applying the on sale bar of § 102 from the "totality of the circumstances" test to the "ready for patenting" test; however, the Court was silent as to the public use bar. The patent law community, on the whole, considered this silence to mean that the test for a public use had remained the same. Courts continued to decide public use bar cases as they had before, consistently using the "totality of the circumstances" test.

Then, in April of 2004, the Federal Circuit decided *SmithKline Beecham Corp. v. Apotex Corp* (*SmithKline II*).<sup>7</sup> In *SmithKline II*, the Federal Circuit disclaimed the "totality of the circumstances" approach for public use and proclaimed that *Pfaff* had established a "ready for patenting" standard, not only for the on sale bar, but also to determine public use. This disclaimer itself was subsequently disclaimed, however, when the Federal Circuit reverted to using the "totality of the circumstances" test for analyzing a public use in the case *Bernhardt*, *L.L.C. v. Collezione Europa USA*, *Inc.*<sup>8</sup>

It may seem that, for the sake of simplicity, consistency, and certainty, the standards for evaluating a public use and the sale of an invention prior to patenting should be the same; however, the policies behind the two bars are different. In addition, a public use is harder to identify by its nature, and thus the more rigid Pfaff standard may put inventors at risk of having their patents deemed invalid due to actions they did not consider public use. In contrast, the "totality of the circumstances" test provides a more flexible standard, allowing the courts to consider the motives of the inventor's actions and the effect on the public before barring the inventor from patenting the invention. Finally, although both public use and sale are negated by a finding of experimental use, the similarity of public use and the experimental use doctrine suggests that a similar analytical framework be used-that of the "totality of the circumstances" test, which was sanctioned by the Supreme Court in Pfaff for determining experimental use.

As the public use bar cannot be effectively analyzed without also considering the on sale bar, Part I of this Note will describe the evolution of the standards used by courts to define a public use as well as a sale of an invention. The experimental use doctrine, which affects both statutory bars, will also be discussed.

<sup>7 365</sup> F.3d 1306 (Fed. Cir. 2004), vacated en banc, 403 F.3d 1328 (Fed. Cir.), aff'd on other grounds, 403 F.3d 1331 (Fed. Cir. 2005).

<sup>8 386</sup> F.3d 1371 (Fed. Cir. 2004).

Next, this Note will focus on the Supreme Court's decision in *Pfaff* and the effect it had on the standards. Several cases that followed *Pfaff*, both in the district courts and in the Federal Circuit, are outlined to illustrate the practical effect of the *Pfaff* decision on public use cases. Part II culminates with an analysis of the Federal Circuit's decision in *SmithKline II*, which seemed to extend the *Pfaff* ruling to cases of public use. However, any extension implied by *SmithKline II* was erased when the Federal Circuit subsequently decided *Bernhardt* using the familiar "totality of the circumstances" test to determine public use.

Finally, this Note will explore whether the *Pfaff* test should apply to public use cases. By considering the differences between the underlying policy justifications and the respective natures of the on sale and public use bars, as well as the relationship each has with the experimental use doctrine, this Note will argue that a balancing approach is the fairest way to ensure that both the interests of the inventor and those of the public are protected. Thus, the *Pfaff* test should remain limited to the on sale bar, and the courts should continue to use a "totality of the circumstances" test when considering public use.

# I. THE EVOLUTION OF THE ON SALE BAR, PUBLIC USE BAR, AND EXPERIMENTAL USE DOCTRINE

In order for an inventor to patent an invention, the invention must meet certain requirements, such as novelty and nonobviousness. Even if the invention itself is patentable, however, the inventor may lose the right to patent if certain statutory conditions are not met.

Section 102 of Title 35 of the U.S. Code describes situations that may deprive the inventor of the right to patent an invention. Two such statutory bars to patenting are described in § 102(b), which states that a person may patent an invention unless "the invention was . . . in public use or on sale in this country, more than one-year prior to the date of the application for patent in the United States." Section 102(b) therefore prevents a person from filing for a patent if the invention was in public use or on sale before the patent was filed, but allows the inventor a one-year "grace period." These provisions are known as the "public use bar" and the "on sale bar" to patenting.

Although the statute does not explicitly mention experimental use, case law has long recognized the effect of experimental use on both bars.<sup>10</sup> A finding of experimental use precludes the application

<sup>9 35</sup> U.S.C. § 102(b) (2000).

<sup>10</sup> See Elizabeth v. Pavement Co., 97 U.S. 126, 133-37 (1877).

of either the on sale or the public use bar.<sup>11</sup> As the standards for determining the existence of a commercial sale or public use have changed over the years, the courts have also had to struggle with how those changes affected the application of the experimental use doctrine. The attempt by the courts to reconcile experimental use with the tests for the statutory bars has had interesting results and has played an important part in the evolution of those tests.

#### A. The On Sale Bar

Historically, courts applied the "on-hand doctrine" to determine whether the on sale bar applied.<sup>12</sup> According to the on-hand doctrine, although an invention may have been offered for sale, it would not be "on sale" for purposes of the statutory bar unless the completed invention was ready for delivery when it was offered for sale.<sup>13</sup> Under this rigid rule, if an invention had been reduced to practice but was not yet available for delivery to the buyer, the on sale bar did not apply.<sup>14</sup>

An invention is generally considered to be "reduced to practice" when four requirements are met:

(1) The invention must have been embodied in a physical or tangible form;

Id. at 133-34.

If patented articles are on hand ready to be delivered to any purchaser, they are on sale, whether any of them has been sold or not. But, if they are not, they cannot be said to be on sale within the meaning of the act, though the invention itself has ceased to be experimental and is complete.

<sup>11</sup> William C. Rooklidge & W. Gerard von Hoffmann, III, Reduction to Practice, Experimental Use, and the "On-Sale" and "Public Use" Bars to Patentability, 63 St. John's L. Rev. 1, 3 (1988).

<sup>12</sup> See Isabelle R. McAndrews, The On-Sale Bar After Pfaff v. Wells Electronics: Toward a Bright-Line Rule, 81 J. Pat. & Trademark Off. Soc'y 155, 157 (1999); see also McCreery Eng'g Co. v. Mass. Fan Co., 195 F. 498 (1st Cir. 1912). The court in McCreery acknowledged that an inventor may file for a patent with only a drawing of the invention rather than a physical embodiment, but, to encourage the inventor to put the invention "in practical form," the court held that "proof of a mere contract to construct from plans and to deliver in future a machine or manufacture not proven to have been previously completed, falls short of proof that the machine or invention was 'on sale.'" Id. at 500–01.

<sup>13</sup> McCreery, 195 F. at 500-01.

<sup>14</sup> See McAndrews, supra note 12, at 157. For example, in Connecticut Paper Products v. New York Paper Co., 39 F. Supp. 127 (D. Md. 1941), modified, 127 F.2d 423 (4th Cir. 1942), the court held that the patents for paper cups and cup dispensers were not invalid under the on sale bar because the products were not on hand for delivery at the time of negotiations with the purchaser:

- (2) the physical embodiment relied on as a reduction must show every feature of the invention as defined in the claim or count in interference;
- (3) the reduction to practice must demonstrate the practicability or utility of the invention to those of ordinary skill in the art; and
- (4) the reduction to practice must have been appreciated by the inventor at the time it was made.<sup>15</sup>

Reduction to practice was a legal conclusion that marked the end of the inventive process; there could be no further experimentation once the invention had been reduced to practice because at that point the invention was complete.<sup>16</sup>

The on-hand doctrine was replaced by a three-part test in *Timely Products Corp. v. Arron*,<sup>17</sup> which accounted for the possibility that an invention may have been reduced to practice when offered for sale, yet may not be "on-hand" for delivery. The *Timely* test consisted of the following:

- (1) The complete invention claimed must have been embodied in or obvious in view of the thing offered for sale. Complete readability of the claim on the thing offered is not required because whatever is published (or on sale) more than one year prior to the filing of a patent application becomes part of the prior art over which the claim must be patentable.
- (2) The invention must have been tested sufficiently to verify that it is operable and commercially marketable. This is simply another way of expressing the principle that an invention cannot be offered for sale until it is completed, which requires not merely its conception but its reduction to practice.
- (3) Finally, the sale must be primarily for profit rather than for experimental purposes.  $^{18}$

The *Timely* test had its own problems, though. The cases that followed struggled with the issue of whether "reduction to practice" was essential to a finding that the invention was on sale according to § 102(b).<sup>19</sup> Some courts, "in an attempt to shoehorn the reduction to practice concept into the on-sale bar analysis, . . . looked to see

<sup>15</sup> Rooklidge & von Hoffmann, *supra* note 11, at 8 (footnotes omitted).

<sup>16</sup> Id. at 9. See generally id. at 7-11 (describing the patent law concepts of perfection, completion, and reduction to practice).

<sup>17 523</sup> F.2d 288 (2d Cir. 1975).

<sup>18</sup> Id. at 302 (citations omitted).

<sup>19</sup> See, e.g., Barmag Barmer Maschinenfabrik AG v. Murata Mach., Ltd., 731 F.2d 831, 837–39 (Fed. Cir. 1984) (discussing the relationship of reduction to practice with each prong of the *Timely* test); Gen. Elec. Co. v. United States, 654 F.2d 55, 60–63 (Ct. Cl. 1981) (en banc) (discussing whether reduction to practice is a prerequisite to the on sale bar when the sale was by a third party); see also UMC Elecs. Co. v. United

whether the invention was 'sufficiently' reduced to practice for purposes of the bar."<sup>20</sup> In a sense, courts were arriving at the legal conclusion that the invention had been reduced to practice *because* there had been a commercial transaction triggering the on sale bar rather than holding that the on sale bar had been triggered because the sale occurred after the invention had been reduced to practice.<sup>21</sup>

In 1987, the Federal Circuit responded to the confusion of the lower courts in the case *UMC Electronics Co. v. United States*.<sup>22</sup> Noting that reduction to practice was not a matter of degree, the court saw the use of a "sufficiently" reduced to practice standard as a flaw in the *Timely* three-prong test.<sup>23</sup>

As a result of this and other flaws,<sup>24</sup> the court implemented a "totality of the circumstances" analysis to determine whether the on sale bar applied:

[W]e simply say here that the on-sale bar does not necessarily turn on whether there was or was not a reduction to practice of the claimed invention. All of the circumstances surrounding the sale or offer to sell, including the stage of development of the invention and the nature of the invention, must be considered and weighed against the policies underlying section 102(b).<sup>25</sup>

The court elaborated on this type of analysis, stating that if the challenger to the patent established that there was a definite sale or offer to sell before the critical date, <sup>26</sup> "the patent owner is called upon to come forward with an explanation of the circumstances surrounding what would otherwise appear to be commercialization outside the grace period." <sup>27</sup>

States, 816 F.2d 647, 652–56 (Fed. Cir. 1987) (discussing the history of the on sale bar with regard to the issue of "reduction to practice").

- 20 UMC, 816 F.2d at 655.
- 21 See Timothy R. Holbrook, The More Things Change, the More They Stay the Same: Implications of Pfaff v. Wells Electronics, Inc. and the Quest for Predictability in the On-Sale Bar, 15 Berkeley Tech. L.J. 933, 947 (2000) ("The case law had made clear that actual reduction to practice—a physical, operable version of the invention—was not required for the on-sale bar to apply . . . .").
  - 22 816 F.2d 647.
  - 23 Id. at 655.
- 24 Another major flaw the court saw was the inconsistency between the first and second parts of the *Timely* test, which implicated both obviousness and reduction to practice. *See id.* at 656.
  - 25 Id. (emphasis added).
- 26 The term "critical date" refers to the date one year prior to the filing of the patent. Sale or public use of the invention prior to the critical date triggers the statutory bars of § 102(b).
  - 27 816 F.2d at 656.

Essentially, the "totality of the circumstances" test called for an evaluation of the facts surrounding the transaction in light of the policies of § 102(b).<sup>28</sup> The courts used legislative history and case law to identify four main policies justifying the statutory on sale bar:

(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>29</sup>

Using this framework, the courts determined whether the statutory on sale bar should apply, and this standard remained in place until the Supreme Court's decision in *Pfaff*.

#### B. The Public Use Bar

Dealing with the on sale provision of § 102(b) was in some ways easier for the courts than analyzing a public use. Public use is often harder to define because it may not involve a discrete transaction, such as an offer to sell an invention. A public use may occur when an inventor gives his invention to another person "without limitation or restriction, or injunction of secrecy." It may involve "just one of the patented articles at issue, or the one-time public use of a patented process at issue . . . . Likewise, use and knowledge of use by just one person is sufficient to constitute public use." In addition, the invention need not be observable to the user:

An invention may consist of a lever or spring, hidden in the running gear of a watch, or of a rachet, 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>32</sup>

<sup>28</sup> Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 549 (Fed. Cir. 1990) ("In order to determine whether an invention was on sale or in public use, we must consider how the totality of the circumstances comports with the policies underlying the on sale and public use bars.").

<sup>29</sup> Tone Bros. v. Sysco Corp., 28 F.3d 1192, 1198 (Fed. Cir. 1994) (citations omitted).

<sup>30</sup> Greta Meyer, Section 102(b) Public Use: A Question of Fact, 26 AIPLA Q.J. 463, 468 (1998).

<sup>31</sup> Id. at 468 (footnotes omitted).

<sup>32</sup> Egbert v. Lippmann, 104 U.S. 333, 336 (1881).

Unlike the case of the on sale bar, the standard for evaluating a public use took the form of weighing the circumstances of the use against the policies of the proscription early on. One of the first Supreme Court cases involving public use was *Elizabeth v. Pavement Co.*<sup>33</sup> In that case, an inventor tested a new method of paving streets by building a small patch of pavement, according to his invention, on a public toll road. The pavement was used for six years before the patent was filed. In considering the inventor's actions, the Court stated that "[t]o determine this question [of public use], it is necessary to examine the circumstances under which this pavement was put down, and the object and purpose that Nicholson had in view."<sup>34</sup>

The cases that followed used a similar type of analysis, focusing on the policies involved and the factual circumstances of the use.<sup>35</sup> Elizabeth and its progeny were viewed as imposing a requirement that the invention be reduced to practice, thereby eliminating the possibility of experimental use, for public use to be found.<sup>36</sup> Although the standard for finding a public use was viewed by many as "broad" and encompassing seemingly innocent behavior, the courts justified this "extremely broad construction" by looking to the policy behind the bar.<sup>37</sup> In a case concerning the public use of a shim for an automobile engine bearing, the D.C. Circuit noted that

[t]he judicial policy underlying this rule has been said to be that an inventor acquires an undue advantage over the public by delaying to take out a patent, inasmuch as he thereby preserves the monopoly to himself for a longer period than the law allows. Of course, the inventor may, if he chooses, keep the invention secret unto himself, rather than apply for a patent, but he does so at his peril. After

<sup>33 97</sup> U.S. 126 (1877).

<sup>34</sup> Id. at 133.

<sup>35</sup> Rooklidge & von Hoffmann, supra note 11, at 35.

<sup>36</sup> *Id.* at 17–18 ("As soon as the invention had been reduced to practice, its use could no longer be 'experimental,' and any public use or commercialization created a bar.").

<sup>37</sup> Watson v. Allen, 254 F.2d 342, 345 (D.C. Cir. 1958). The D.C. Circuit in that case seemed unsympathetic to inventors engaged in public use:

<sup>[</sup>T]he fact that there is but one user, or the invention is given without profit, or that it is hidden from the general public's eye, would seem to be immaterial. Nor need the user even realize he is using the invention. It is immaterial that the use was without the inventor's consent, or that the use was due to factors not his fault and beyond his control. It may be fair to conclude that public use exists where the invention is used by, or exposed to, anyone other than the inventor or persons under an obligation of secrecy to the inventor.

Id. (footnotes omitted).

reduction to practice, unreasonable delay in applying for a patent may be construed to be an abandonment with the consequence that the public is entitled to rights in the invention.<sup>38</sup>

In other words, in determining a public use, the court acts as guardian of the public interest. Even though the inventor may not intend to obtain any benefit for himself, if the public is harmed by relying on access to the invention or by being deprived of the invention for longer than the statutory period, then there is a public use.

By 1984, the standard for evaluating public use was articulated in its familiar form when the Federal Circuit declared that "[t]he issue must be determined by considering the totality of circumstances." 39

## C. The Experimental Use Doctrine

As part of the analysis for both the on sale and public use bars, courts consider whether the inventor's actions involved experimental use. Thus, as the tests for sale and public use developed, so too did the experimental use doctrine.

Experimental use occurs when an inventor engages in activity "in order to ascertain whether the invention works for its intended purpose." Although an inventor may experiment privately in the process of developing the invention, if there is no sale of the invention and no exposure to the public, there is no need to apply the experimental use doctrine because there has been no use that could be considered as barring a patent. In other words, the experimental use doctrine is invoked by inventors to justify activities that may otherwise have invalidated a patent under either the on sale bar or the public use bar of § 102(b).

For example, in EZ Dock, Inc. v. Schafer Systems, Inc.,<sup>41</sup> the defendant in a patent infringement suit, Schafer Systems, claimed that plaintiff EZ Dock's patent for a floating dock system was invalid due to EZ Dock's sale of two sections of the new dock to a Mr. Greden thirteen months before applying for a patent.<sup>42</sup> The lower court granted summary judgment for Schafer, ruling that the transaction triggered

<sup>38</sup> Id. at 346.

<sup>39</sup> Hycor Corp. v. Schlueter Co., 740 F.2d 1529, 1535 (Fed. Cir. 1984); see also TP Labs., Inc. v. Prof'l Positioners, Inc., 724 F.2d 965, 971 (Fed. Cir. 1984) ("Thus, the court should [look] at all of the evidence put forth by both parties and should [decide] whether the entirety of the evidence [leads] to the conclusion that there had been 'public use.'").

<sup>40</sup> Meyer, supra note 30, at 469.

<sup>41 276</sup> F.3d 1347 (Fed. Cir. 2002).

<sup>42</sup> Id. at 1349-50.

the on sale bar and thus invalidated EZ Dock's patent.<sup>43</sup> The Federal Circuit, however, vacated that ruling, holding that a jury could reasonably find that the transaction was actually an experimental use.<sup>44</sup>

The court noted several elements of the transaction that could support a finding of experimental use, such as Mr. Greden's initiating the sale, the reduced price of the dock, the free equipment and installation of the dock provided by the inventors, the fact that the dock was installed in an area of rough waters, and the fact that the inventors visited the dock on several occasions and made repairs for free. In addition, the inventors later changed the shape of the pylons, which they claimed in their patent application, from rectangular, as they were in Mr. Greden's dock, to frustoconical. The court found this to be significant, noting that "[w]hen an inventor can show changes during experimentation that result in features later claimed in the patent application, this evidence is a strong indication that the activities of the inventor negated any evidence of premature commercial exploitation of an invention ready for patenting."

Described as the "seminal experimental use case," 47 Elizabeth v. Pavement Co.48 dealt with experimental use in the context of public use. The inventor, Nicholson, had built a small patch of pavement using his new method on a public road. Although the invention was exposed to the public for six years prior to Nicholson's filing for a patent, the Supreme Court did not find that the inventor's actions constituted a public use, saying "[t]he use of an invention by the inventor himself, or of 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 [public] use." 49 The Court looked at the nature of the invention as requiring testing in a public place and noted that testing the pavement's durability required "use for a considerable time." 50

To those who would say that *not* finding a public use, even in a case of experimentation such as Nicholson's, grants to the inventor an extended monopoly, the Supreme Court responded that "this cannot be said with justice when the delay is occasioned by a *bona fide* effort to bring his invention to perfection, or to ascertain whether it will answer

<sup>43</sup> Id. at 1350.

<sup>44</sup> Id. at 1353-54.

<sup>45</sup> Id. at 1352-53.

<sup>46</sup> Id. at 1353.

<sup>47</sup> Rooklidge & von Hoffmann, supra note 11, at 11.

<sup>48 97</sup> U.S. 126 (1877).

<sup>49</sup> Id. at 134.

<sup>50</sup> Id. at 136.

the purpose intended."<sup>51</sup> The Court added that "it is the interest of the public, as well as [the inventor] himself, that the invention should be perfect and properly tested, before a patent is granted for it."<sup>52</sup>

Later cases interpreted *Elizabeth* as imposing two requirements for a finding of experimental use in either the on sale or public use contexts: "first, the invention cannot have previously been 'perfected'; and, second, the activity must have been for the purpose of experimentation, that is, bringing the invention to perfection." Thus, the point at which the invention was reduced to practice is pivotal to a finding of experimental use.<sup>54</sup>

A finding that the inventor maintained control over the use of the invention is a major factor in favor of experimental use.<sup>55</sup> Other factors may include "the existence of a secrecy agreement, the number of prototypes, the duration of testing, whether progress reports or records were kept, and whether the patentee received compensation for the use of the invention."

Until recently, the courts used a "totality of the circumstances" approach in both the on sale and public use bar contexts, viewing experimental use as one of the "circumstances" to be considered.<sup>57</sup> In 1998, however, the Supreme Court changed the standard for evaluating the on sale bar, leaving it up to the rest of the legal community to decide the fate of the public use bar, as well as to figure out how the experimental use doctrine fit into the new *Pfaff* test.

#### II. DOES PEAFE APPLY TO PUBLIC USE?

The "totality of the circumstances" test for determining public use and sale generated much discussion and discontent in the legal community. The test was criticized for being ambiguous and unpredictable, making it impossible for inventors, as well as the public, to know what actions would bar the filing of a patent.<sup>58</sup> The courts ap-

<sup>51</sup> Id. at 137.

<sup>52</sup> Id.

<sup>53</sup> Rooklidge & von Hoffmann, supra note 11, at 12.

<sup>54</sup> Id. at 15 ("[R]eduction to practice ends the period of experimental use of the kind that will negate the 'on sale' or 'public use' bars.").

<sup>55</sup> See Meyer, supra note 30, at 469.

<sup>56</sup> Id. at 469-70; see also TP Labs., Inc. v. Prof'l Positioners, Inc., 724 F.2d 965, 971-73 (Fed. Cir. 1984) (describing similar factors).

<sup>57</sup> See Tone Bros. v. Sysco Corp., 28 F.3d 1192, 1198 (Fed. Cir. 1994).

<sup>58</sup> See Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 65–66 (1998) ("A rule that makes the timeliness of an application depend on the date when an invention is 'substantially complete' seriously undermines the interest in certainty."); see also Atl. Thermoplastics Co. v. Faytex Corp., 5 F.3d 1477, 1483 n.1 (Fed. Cir. 1993) (Rader, J., dissenting)

plying a "totality of the circumstances" analysis "did not establish clear guidelines for the patent community to follow. In particular, it was unclear at what stage of an invention's development the on-sale bar would apply and what policy predominated in a given fact situation." This was especially true when the standard was used for the on sale bar, and different jurisdictions seemed to be arriving at different results for similarly situated cases. The Supreme Court responded to the juridical discord in 1998 when it granted certiorari in *Pfaff v. Wells Electronics, Inc.* 1

#### A. The Pfaff Test

In *Pfaff v. Wells Electronics, Inc.*, the inventor of a computer chip socket, Wayne Pfaff, sued Wells Electronics for infringement. As part of its defense, Wells claimed that Pfaff's patent was invalid under the on sale bar of § 102(b).

Pfaff had filed for a patent on April 19, 1982, making the critical date for purposes of the bar April 19, 1981. Pfaff had started working on his invention in November of 1980 in response to requests by Texas Instruments for a "new device for mounting and removing semiconductor chip carriers." He prepared detailed engineering drawings with information about the design, the dimensions, and the materials to be used and sent the drawings to a manufacturer in February or March of 1981.63

Pfaff showed his design ideas to Texas Instruments at some point before mid-March, 1981.<sup>64</sup> On April 8, eleven days before the critical date, Texas Instruments gave Pfaff written confirmation of an order for 30,100 sockets worth \$91,155.<sup>65</sup> Although Pfaff had not built a prototype of his invention at the time of the transaction with Texas Instruments, he stated that it was not his practice to do so. Rather, his

<sup>(</sup>acknowledging the complaint that "recent Federal Circuit on-sale bar decisions have not provided district courts and practitioners with any sense of predictability"); Margaret L. Begalle, Note, Eliminating the Totality of the Circumstances Test for the Public Use Bar Under Section 102(b) of the Patent Act, 77 Chi.-Kent L. Rev. 1359, 1370 (2002) (noting that "the totality of the circumstances test is vague").

<sup>59</sup> McAndrews, *supra* note 12, at 156; *see also* Seal-Flex, Inc. v. Athletic Track & Court Constr., 98 F.3d 1318, 1323 n.2 (Fed. Cir. 1996) (noting that the totality of the circumstances test "has been criticized as unnecessarily vague").

<sup>60</sup> See UMC Elecs. Co. v. United States, 816 F.2d 647, 656 (1987) (stating that the on sale bar "does not lend itself to formulation into a set of precise requirements").

<sup>61 525</sup> U.S. 55.

<sup>62</sup> Id. at 58.

<sup>63</sup> Id.

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

<sup>65</sup> Id.

inventions went from drawings straight to the manufacturer for production.<sup>66</sup> The manufacturer required several months to develop the tooling required to produce Pfaff's sockets; it was July 1981 before the order was filled.<sup>67</sup> As a result, the Supreme Court acknowledged that "Pfaff first reduced his invention to practice in the summer of 1981."<sup>68</sup>

The Court ruled that Pfaff's transaction with Texas Instruments, despite the fact that Pfaff had no working prototype and the invention thus had not yet been reduced to practice, constituted a sale and that his patent was invalid.<sup>69</sup> In arriving at this conclusion, the Court distinguished between an invention being "substantially complete at the time of sale" and being "ready for patenting."<sup>70</sup> Although Pfaff's invention was not "substantially complete" in that he had no physical prototype of his sockets, the drawings he sent to the manufacturer embodied his invention to the extent that he could have applied for a patent at that point.<sup>71</sup> His invention was thus "ready for patenting."

The Court went on to describe the balance of interests between the inventor and the public that patent law seeks to achieve:

[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>72</sup>

Thus the goal of patent law is "to protect the public's right to retain knowledge already in the public domain and the inventor's right to control whether and when he may patent his invention."<sup>73</sup> To safeguard these two sets of interests and provide the inventor with a more definite standard, the Court rejected the "substantially complete" rule for determining when an invention is on sale.<sup>74</sup> In its place, the Court declared a two-prong "ready for patenting" test:

[T]he on-sale bar applies when two conditions are satisfied before the critical date. First, the product must be the subject of a commercial

<sup>66</sup> Id. n.3.

<sup>67</sup> Id. at 58.

<sup>68</sup> Id.

<sup>69</sup> Id. at 68-69.

<sup>70</sup> Id. at 60, 66 (citation omitted).

<sup>71</sup> Id. at 63.

<sup>72</sup> Id.

<sup>73</sup> Id. at 65.

<sup>74</sup> Id. at 65-66.

offer for sale.... Second, the invention must be ready for patenting. That condition 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>75</sup>

In effect, the Supreme Court changed the focus of the on sale bar analysis from reduction to practice to the point at which the invention is ready to be patented.<sup>76</sup> The new standard no longer imposes the same invention process on all inventors, forgoing the requirement that the invention be "perfected" through the use of a prototype and experimentation before triggering the on sale bar's one-year grace period for filing the patent. Instead, the "ready for patenting" standard looks at whether the particular inventor, following his or her usual method of invention, had attained the level of detail required to apply for a patent. In this way, a person like Pfaff, who always went from drawings to the finished product,<sup>77</sup> could not extend his monopoly on the invention by claiming that his invention had not yet been reduced to practice at the time of the sale. At the same time, a preliminary discussion prompting the invention of a device<sup>78</sup> cannot be regarded as triggering the on sale bar because there is not yet an invention for which a patent application could be filed.

The Supreme Court's decision in *Pfaff* resulted in a new test for the courts to use when considering the on sale bar of § 102(b). However, the Court made no mention of the standard for public use. Courts and commentators alike understood this silence to mean that the public use standard was unchanged. Thus, in the years that followed, the courts decided cases involving the sale of an invention by applying the "ready for patenting" test of *Pfaff*, but they continued to evaluate public use cases by considering the "totality of the circumstances."

#### B. The Space Between (Pfaff and SmithKline)

When *Pfaff* was first decided in 1998, law reviews and journals were abuzz with articles discussing the implications of *Pfaff* and the status of the public use bar. Some argued that eliminating the "total-

<sup>75</sup> Id. at 67-68 (emphasis added) (footnotes omitted).

<sup>76</sup> See supra text accompanying note 15 for a discussion of the meaning of reduction to practice.

<sup>77</sup> Pfaff, 525 U.S. at 58 n.3.

<sup>78</sup> Id. at 58.

ity of the circumstances" test was a step in the wrong direction,<sup>79</sup> and others advocated extending the *Pfaff* test to public use cases.<sup>80</sup> In her note, Margaret Begalle proposed a modified *Pfaff* test for evaluating public use that maintained reduction to practice as a trigger for the bar: "[T]he one-year statutory grace period [should] begin[] when: (1) there is any nonexperimental use by or visible to someone other than the inventor or those under the inventor's direction; and (2) the invention is reduced to practice."<sup>81</sup>

Despite all the scholarly discourse, the courts, including the Federal Circuit, continued to apply the "totality of the circumstances" test in public use cases. In System Management Arts Inc. v. Avesta Technologies, Inc., 82 the Southern District of New York used a "totality of the circumstances" standard when considering the validity of System Management Arts' (SMART's) patents for network computer software as a result of alleged public use. In its analysis, the court completely ignored Pfaff, quoting a pre-Pfaff Federal Circuit decision which noted that "courts have considered the 'totality of the circumstances in conjunction with the policies underlying the public use bar.' "83 Furthermore, the court made no mention of Pfaff in its opinion denying summary judgment to Avesta on the issue of SMART's patents being invalid due to public use.

Nearly a year later, the Northern District of Illinois considered a case which led to the Federal Circuit's brief extension of *Pfaff* to public use: *SmithKline Beecham Corp. v. Apotex Corp.* (*SmithKline I*).<sup>84</sup> This

<sup>79</sup> See, e.g., Lucius L. Lockwood, Note, Ready, Set, Patent! How the Supreme Court in Pfaff v. Wells Electronics Jumped the Gun, 40 JURIMETRICS J. 399, 400 (2000) ("[A]bandoning the totality of circumstances test is unlikely to promote the advancement of useful arts.").

<sup>80</sup> See, e.g., Katherine E. White, A General Rule of Law Is Needed To Define Public Use in Patent Cases, 88 Ky. L.J. 423, 424-25 (2000) (concluding that "after Pfaff, a general rule of law is needed to determine public use in patent cases" and to "reinvigorate[] the historic distinction between public use and on sale issues, consequently enabling cases to be decided more predictably"); Begalle, supra note 58, at 1361 (arguing that "the Federal Circuit needs to develop a clear and unambiguous rule for determining what types of activities lead to an invalidating public use").

<sup>81</sup> Begalle, supra note 58, at 1374.

<sup>82 87</sup> F. Supp. 2d 258 (S.D.N.Y. 2000).

<sup>83</sup> Id. at 264 (quoting Baxter Int'l, Inc. v. COBE Labs., Inc., 88 F.3d 1054, 1058 (Fed. Cir. 1996)).

<sup>84 286</sup> F. Supp. 2d 925 (N.D. Ill. 2001) (summary judgment on the validity of the patent in question), judgment entered, 247 F. Supp. 2d 1011 (N.D. Ill. 2003), aff'd on other grounds, 365 F.3d 1306 (Fed. Cir. 2004), vacated en banc, 403 F.3d 1328 (Fed. Cir.), aff'd on other grounds, 403 F.3d 1331 (Fed. Cir. 2005). The Federal Circuit disagreed with the lower court's analysis of the issue of public use in SmithKline II, 365 F.3d 1306. See infra notes 98–106 and accompanying text.

case dealt with the alleged infringement of SmithKline's patent for a chemical compound for antidepressant drugs by the defendant Apotex Corporation. One of the issues on motion for summary judgment was whether SmithKline's testing of the compound on patients for five months prior to the critical date constituted experimental use or public use, and thus whether the patent was valid.<sup>85</sup>

The district court was not clear about which standard it used to decide whether SmithKline's trials constituted a public use. Although the court approached the question using a *Pfaff* like two-part analysis, it seemed to imply that only parts of *Pfaff* were relevant in the public use context.<sup>86</sup> The two prongs considered by the court were (1) the experimental nature of the trial<sup>87</sup> and (2) whether the invention was "reduced to practice."<sup>88</sup>

The use of the pre-Pfaff notion of "reduction to practice" was neither accidental nor mistaken. The Supreme Court in Pfaff had made the point of abandoning "reduction to practice" as the trigger for the on sale bar in favor of the point at which the invention was "ready for patenting." The district court specifically addressed this issue when responding to SmithKline's argument that Pfaff overturned the rule that reduction to practice ends the period during which use may be considered experimental:

Pfaff... stands primarily for the proposition that "just because reduction to practice is sufficient evidence of completion [of an invention] does not mean that proof of reduction to practice is necessary in every case." The decision does not address the related question of whether a reduction to practice is relevant only to the question of whether the invention is ready for patenting or whether it may also bear on the question of whether the nonprivate use of the invention was public or experimental...

... It is the opinion of this court that the reduction to practice rule set forth in RCA Corp. v. Data Gen. Corp. . . . continues to apply after Pfaff.<sup>89</sup>

Thus, the court stated that the *Pfaff* decision did not impose the "ready for patenting" requirement on the experimental use or public

<sup>85</sup> SmithKline I, 286 F. Supp. 2d at 932.

<sup>86</sup> See id. at 935-36.

<sup>87</sup> Id. at 932-35.

<sup>88</sup> Id. at 935-38.

<sup>89</sup> *Id.* at 935–36 (alteration in original) (citation omitted). The reduction to practice rule in *RCA* stated that "experimental use, which means perfecting or completing an invention to the point of determining that it will work for its intended purpose, ends with an actual reduction to practice." RCA Corp. v. Data Gen. Corp., 887 F.2d 1056, 1061 (Fed. Cir. 1989).

use questions. As a result, the court maintained that the reduction to practice rule still applies after *Pfaff* when analyzing experimental use in the context of the public use bar.<sup>90</sup>

The court went on to use a "totality of the circumstances" analysis, saying, "The Federal Circuit has noted that in determining reduction to practice, courts are 'guided by a common sense approach in weighing the sufficiency of the testing.'" Applying that standard, the court granted summary judgment in favor of SmithKline, finding no public use to invalidate the patent. Three years later, the Federal Circuit would find the SmithKline patent invalid by extending *Pfaff* to the public use bar.<sup>92</sup>

In 2002, the Federal Circuit used a "totality of the circumstances" test to decide Netscape Communications Corp. v. Konrad.<sup>93</sup> Netscape involved patents for systems that performed remote access and searching of a computer database and addressed both the public use bar and the on sale bar after Pfaff. In addressing the public use bar, the court explicitly stated, "We look to the totality of the circumstances when evaluating whether there has been a public use within the meaning of section 102(b). The totality of the circumstances is considered in conjunction with the policies underlying the public use bar."<sup>94</sup> In addition, the court listed some of the "circumstances" that ought to be considered in this evaluation.<sup>95</sup> Using this type of analysis, the court found that the patents were indeed barred due to public use before the critical date.<sup>96</sup>

The *Netscape* decision provided an opportunity for the court to make a conscious distinction between the public use test and the on sale test after *Pfaff*. Had there been any doubt as to how the Federal

Id.

<sup>90</sup> SmithKline I, 286 F. Supp. 2d at 936.

<sup>91</sup> Id. at 937 (quoting Scott v. Finney, 34 F.3d 1058, 1061 (Fed. Cir. 1994)).

<sup>92</sup> See infra Part II.C.

<sup>93 295</sup> F.3d 1315 (Fed. Cir. 2002).

<sup>94</sup> Id. at 1320 (citation omitted).

<sup>95</sup> The court offered the following circumstances for consideration: the nature of the activity that occurred in public; the public access to and knowledge of the public use; whether there was any confidentiality obligation imposed on persons who observed the use; whether persons other than the inventor performed the testing; the number of tests; the length of the test period in relation to tests of similar devices; and whether the inventor received payment for the testing.

<sup>96</sup> In finding the patents also invalid under the on sale bar, the Federal Circuit turned to *Pfaff*, explaining that "[t]he on-sale bar applies when the invention is the subject of a commercial offer for sale, and is ready for patenting before the critical date." *Id.* at 1323 (citing Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67 (1998)).

Circuit would analyze the public use bar after *Pfaff*, there should have been no question after *Netscape*.

## C. The Return of SmithKline

Until April of 2004, the patent community had understood from the silence of the Supreme Court in *Pfaff*, as well as the string of cases on public use that followed, that public use analysis was unaffected by *Pfaff*'s "ready for patenting" test. The Federal Circuit itself had made a clear distinction between the test to be used when applying the public use bar and that to be used for the on sale bar. However, two years after *Netscape*, the Federal Circuit decided *SmithKline II*, s in which the court extended *Pfaff*'s two-part analysis to public use cases.

The facts of *SmithKline II* are the same as those of *SmithKline I.*<sup>99</sup> After a ruling by the Northern District of Illinois that Apotex's chemical compound did not infringe SmithKline's patent, <sup>100</sup> SmithKline appealed to the Federal Circuit. Apotex cross-appealed, arguing that SmithKline's testing was not experimental but rather constituted a public use under § 102(b), thus rendering the drug patent invalid. <sup>101</sup>

The majority started its analysis by citing *Pfaff* and explaining that the Supreme Court had rejected the "substantially complete under a totality of circumstances test for the on sale bar under § 102(b) and adopted a two-prong test" that requires that the claimed invention was (1) the subject of a commercial offer for sale and (2) ready for patenting.<sup>102</sup>

The majority went on to say that "[a] similar analysis applies to the public use bar under § 102(b)... Thus, § 102(b) erects a bar where, before the critical date, the invention was ready for patenting and was used by a person other than the inventor who is under no confidentiality obligation." In another part of the opinion, the court explicitly stated that the "totality of the circumstances" approach

<sup>97</sup> See id. at 1320, 1323.

<sup>98 365</sup> F.3d 1306 (Fed. Cir. 2004), vacated en banc, 403 F.3d 1328 (Fed. Cir.), aff'd on other grounds, 403 F.3d 1331 (Fed. Cir. 2005).

<sup>99</sup> See supra text accompanying notes 84-85.

<sup>100</sup> See SmithKline Beecham Corp. v. Apotex Corp., 247 F. Supp. 2d 1011, 1014 (N.D. III. 2003), aff'd on other grounds, 365 F.3d 1306 (Fed. Cir. 2004), vacated en banc, 403 F.3d 1328 (Fed. Cir.), aff'd on other grounds, 403 F.3d 1331 (Fed. Cir. 2005). In SmithKline II, the Federal Circuit affirmed the district court's result, but reversed the district court's ruling on public use. 365 F.3d at 1320.

<sup>101</sup> SmithKline II, 365 F.3d at 1311.

<sup>102</sup> Id. at 1316 (internal quotation marks omitted) (citing Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67 (1998)).

<sup>103</sup> Id. at 1316-17.

to analyzing a public use was "overruled by Pfaff" and that "weigh[ing] a 'totality of circumstances'... no longer appl[ies]." With these statements, the Federal Circuit seemed to extend the holding in Pfaff to cases involving public use as well as commercial sale—a move that seemed to contradict its reasoning in previous cases.

The court thus declared a new rule, reinterpreting *Pfaff* to state that there is a public use if the invention (1) was used by a member of the public, and (2) was ready for patenting.<sup>105</sup> Armed with this new public use test, the court found that SmithKline's clinical trials were not done to test the claimed invention, and therefore the experimental use doctrine did not serve to negate the public use bar in this case.<sup>106</sup>

And so it was that six years after the Supreme Court handed down a new test for the on sale bar of § 102 in *Pfaff*, the Federal Circuit seemed to reinterpret the Court's holding to apply it to public use cases, as well. Patent attorneys and commentators would spend the next six months pondering *SmithKline II*. Then, later that same year, the Federal Circuit would decide another public use case that would turn back the clock and reestablish the "totality of the circumstances" standard for determining the existence of a public use.

# D. Back to a "Totality of the Circumstances"?

After declaring in *SmithKline II* that the "totality of the circumstances" test no longer applied for analyzing public use,<sup>107</sup> the Federal Circuit seems to have recanted.

<sup>104</sup> *Id.* at 1319 (emphasis added) (citing Seal-Flex, Inc. v. Athletic Track & Court Constr., 98 F.3d 1318, 1322–23 (Fed. Cir. 1996)).

Although there was a concurring opinion in *SmithKline II*, written by Judge Gajarsa, it focused not on the question of this sudden extension of *Pfaff* to cover public use but on the choice of statutory provisions used to invalidate SmithKline's patent. *Id.* at 1320. Judge Gajarsa would have found the claim invalid under 35 U.S.C. § 101. *Id.* at 1321 (Gajarsa, J., concurring). He did devote a portion of his substantial concurrence to the majority's treatment of the clinical tests as not being experimental use; however, he made no mention of the new *Pfaff*-like analysis of the public use bar but only disagreed with the distinction between this case and *EZ Dock, Inc. v. Schafer Systems, Inc.*, 276 F.3d 1347 (Fed. Cir. 2002), *Seal-Flex*, 98 F.3d 1318, and *Manville Sales Corp. v. Paramount Systems Inc.*, 917 F.2d 544 (Fed. Cir. 1990), arguing that he would have found SmithKline's clinical tests to be experimental use. *SmithKline II*, 365 F.3d at 1324–25 (Gajarsa, J., concurring).

<sup>105</sup> SmithKline II, 365 F.3d at 1317 (majority opinion).

<sup>106</sup> Id

<sup>107</sup> Id. at 1319.

In Bernhardt, L.L.C. v. Collezione Europa USA, Inc., 108 the Federal Circuit reverted to using a "totality of the circumstances" analysis when considering the validity of six design patents for furniture. Plaintiff Bernhardt in this case displayed its furniture designs in an exhibition to key customers and media representatives thirteen months prior to applying for the patents. 109

When considering whether the exhibition of the designs constituted a public use, the Federal Circuit clearly stated that the appropriate test was a "totality of the circumstances" analysis:

In determining whether an invention was in public use, a court "must consider how the totality of the circumstances comports with the policies underlying the on sale and public use bars," including "discouraging the removal of inventions from the public domain which the public justifiably comes to believe are freely available, prohibiting an extension of the period for exploiting the invention, and favoring prompt and widespread disclosure of inventions." Additional factors a court must consider and weigh in determining whether the use was "public" under § 102(b) include, *inter alia*, "the nature of the activity that occurred in public; the public access to and knowledge of the public use; [and] whether there was any confidentiality obligation imposed on persons who observed the use...."110

The court made no mention of its ruling in *SmithKline II*. In fact, it even admonished the lower court for failing to apply the standard it had declared obsolete in *SmithKline II*, saying, "The district court focused on the absence of any confidentiality agreements and did not discuss or analyze how the totality of circumstances surrounding Bernhardt's 1999 Pre-Market [exhibition] comports with the policies underlying the public use bar." 111

In 2005, the Federal Circuit seemed to procedurally undo what it had done to public use—the Federal Circuit vacated its decision<sup>112</sup> in *SmithKline II* and replaced it with an opinion<sup>113</sup> affirming its original decision that SmithKline's patent was invalid. However, in its final *SmithKline* opinion, the Federal Circuit abandoned all discussion of public use and instead found the SmithKline patent invalid due to

<sup>108 386</sup> F.3d 1371 (Fed. Cir. 2004).

<sup>109</sup> See id. at 1374-75.

<sup>110</sup> Id. at 1379 (citations omitted).

<sup>111</sup> Id. at 1381.

<sup>112</sup> SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1328 (Fed. Cir.) (en banc), aff'd on other grounds, 403 F.3d 1331 (Fed. Cir. 2005).

<sup>113</sup> SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331.

anticipation under § 102(b).<sup>114</sup> This serves to formally erase the court's extension of *Pfaff* to public use.

At this point in time, it seems as though the "totality of the circumstances" test lives on as the appropriate standard for evaluating a public use. However, the public use bar's brief fling with the *Pfaff* test is enough to make a person wonder whether the "totality of the circumstances" test really is the appropriate test for public use, or whether *Pfaff* was the way to go all along.

#### III. SHOULD PFAFF APPLY TO PUBLIC USE?

In a word, no. Although the public use bar and the on sale bar are closely related, the policies underlying the bars, the distinct nature of the activities triggering each bar, and the bars' relationship to the experimental use doctrine suggest that they are best addressed using different tests. The more rigid "ready for patenting" test of *Pfaff* may work well in the context of the on sale bar, but the somewhat elusive public use bar is more effectively, and more fairly, considered using the "totality of the circumstances" framework.

## A. The Different Policies of the Bars

Through the years, it has been tempting for the courts to view commercial sale and public use as two sides of the same coin. As early, as 1916, the Second Circuit, looking at the wording of § 102(b), stated that "[t]he combination of the words ['public use' and 'on sale'] indicates that the sale contemplated is such as creates an opportunity for present public use." In other words, the court viewed the sale of the invention as equivalent to the inventor having put the invention in the public domain, creating a public use. Other cases have echoed this sentiment. 116

The Federal Circuit in *UMC Electronics Co. v. United States*, <sup>117</sup> however, specifically rejected the idea that public use and sale should be treated identically when it noted that "[t]he public use bar of section 102(b) implicates different considerations and nothing said here [about the on sale bar] should be construed to encompass that part of

<sup>114</sup> *Id.* at 1342–46.

<sup>115</sup> Burke Elec. Co. v. Indep. Pneumatic Tool Co., 234 F. 93, 93 (2d Cir. 1916).

<sup>116</sup> See, e.g., McCreery Eng'g Co. v. Mass. Fan Co., 195 F. 498, 502 (1st Cir. 1912) ("The putting 'on sale' intended by the statute is more or less analogous to a public use . . . ."); Philco Corp. v. Admiral Corp., 199 F. Supp. 797, 814–18 (D. Del. 1961) (treating the issue of the invention being on sale or in public use as one question). 117 816 F.2d 647 (Fed. Cir. 1987).

the statute."<sup>118</sup> In a later case, the Federal Circuit elaborated on the policy differences between the two bars:

"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.<sup>119</sup>

Thus, although the courts pre-*Pfaff* applied the "totality of the circumstances" test when considering both statutory bars, the facts were viewed from a different perspective when the case involved a public use.<sup>120</sup>

In other words, although the goal of patent law is to promote the progress of science and technology for the public good, the two bars strive to uphold that goal in different ways. A public use invalidates a patent primarily because the inventor has exposed the innovation to the public, allowing the public to rely on free access to the invention. Barring a patent due to the sale of an invention, on the other hand, primarily aims at preventing the inventor from extending his or her monopoly and commercially exploiting the invention for longer than the statutory period. 122

As compared to the "totality of the circumstances" test, Pfaff's "ready for patenting" test is better suited to address the policy concerns underlying the on sale bar. In Pfaff, the Supreme Court devised a test that eliminated reduction to practice as a trigger for the on sale bar. Rather, reduction to practice became one way of showing that the invention was "ready for patenting" and thus susceptible to the on sale bar. This removes the possibility of inventors commercially benefiting from their inventions for longer than the patent law allows by postponing the production of a prototype or the "perfection" of the invention. The Court in Pfaff highlights this aspect of the on sale bar by quoting Judge Learned Hand's description of the on sale bar as "'a

<sup>118</sup> Id. at 652 n.5.

<sup>119</sup> Cont'l Plastic Containers v. Owens Brockway Plastic Prods., Inc., 141 F.3d 1073, 1079 (Fed. Cir. 1998).

<sup>120</sup> See, e.g., id. at 1078-79 (refusing to extend the public use analysis of *Tone Bros. v. Sysco Corp.*, 28 F.3d 1192 (Fed. Cir. 1994), to the on sale context).

<sup>121</sup> See Rooklidge & von Hoffmann, supra note 11, at 36 (noting that commercialization of the invention does not present as "clear-cut" a situation of detrimental public reliance as does the case of public use).

<sup>122</sup> See id. at 45 ("An 'on sale' bar situation will always involve commercial activities and, thus, will always implicate th[e] policy against pre-application commercialization. On the other hand, a public use may not.").

condition upon an inventor's right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy, or legal monopoly.'"<sup>128</sup>

Applying the "ready for patenting" standard to public use cases, however, would not further the primary goal of the public use bar to reduce detrimental reliance by the public and may in fact result in harm to the public. Such a standard may push inventors to file for patents prematurely (for example, as soon as they have detailed drawings, even though they may not be sure that the invention has been perfected). It may also reduce the incentive for inventors to make detailed designs prior to building a prototype, forcing inventors to rely on a trial-and-error method of perfecting the invention for fear that some activity may later be viewed as a public use made after the invention was "ready for patenting."

Although the *Pfaff* test serves to further the on sale bar's underlying policy of preventing the inventor from extending his monopoly on the invention, it does not serve the same purpose in the context of a public use. To insure that the public is harmed neither by detrimental reliance resulting from a public use, nor by the immature filing of a patent, the "totality of the circumstances" should be considered.

# B. The Different Nature of the Activities Triggering the Bars

Part of the difficulty with applying a "ready for patenting" standard to public use cases is the ambiguous nature of a public use and the greater perceived harm of violating the on sale bar as opposed to the public use bar.

In the case of an invention that is on sale, the resulting harm or inequity can be assigned a monetary value, and a measurable benefit is conferred upon the inventor because of the transaction. As such, the Supreme Court, which is not quick to grant certiorari in patent cases, 124 agreed to hear *Pfaff* to address the uncertainty surrounding the application of the on sale bar. With the more definite standard that *Pfaff* provided, 125 there was less likelihood, theoretically, that a

<sup>123</sup> Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 68 (1998) (quoting Metallizing Eng'g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 520 (2d Cir. 1946)).

<sup>124</sup> Larry D. Thompson, Jr., Adrift on a Sea of Uncertainty: Preserving Uniformity in Patent Law Post-Vornado Through Deference to the Federal Circuit, 92 GEO. L.J. 523, 576–77 (2004) (noting "the infrequency with which the Supreme Court has traditionally taken up patent cases").

<sup>125</sup> Some authors have argued that the *Pfaff* test does not provide a "bright-line rule" but rather creates its own ambiguities:

Underlying the Supreme Court decision [in *Pfaff*] is the presumption that the inventor can control the patenting and market timing of the inven-

court would be able to manipulate the policies to be weighed in a "totality of the circumstances" test to rationalize a predetermined conclusion of whether there was a sale.<sup>126</sup>

Unlike its on sale counterpart, however, the public use question is not based on an actual "transaction" and may not even involve measurable harm to real people. Public use cases may involve unconsented activities by a third party, <sup>127</sup> a display of the invention in the inventor's home or a noncommercial setting, <sup>128</sup> or disclosure of the invention to personal friends and co-workers. <sup>129</sup> In other words, the public's exposure to the invention may be the result of passive *inaction* on the part of the inventor. In contrast, the sale of an invention requires an affirmative action on the part of the inventor—the inventor cannot "accidentally" offer to sell the invention.

This difference between a sale and a public use can be described in terms of control. In the case of the sale of an invention, the inventor generally has control over whether to put the invention up for sale or whether to accept a third party's offer for sale.<sup>150</sup> Therefore, under a "ready for patenting" standard, the inventor can refuse to sell an invention that is ready for patenting but for which no patent application has been filed. Similarly, the inventor who chooses to sell the invention based solely on detailed drawings would have adequate notice to file for a patent within one year of the sale to avoid the statutory bar.<sup>131</sup>

tion. . . . The reality is that inventors, particularly in the corporate setting, often do not have such control over their inventions. A second weakness in the [Pfaff] test is the misconception that the inventor will know when an invention is ready for patenting. That is seldom the case.

McAndrews, *supra* note 12, at 162. If applying the *Pfaff* test is ambiguous in the context of the on sale bar, it is doubly so when used to determine a public use because of the indefinite nature of the activities themselves that may constitute a public use.

126 Id. at 156-57 ("The different holdings of [Federal Circuit] cases were rationalized by a discussion of the policy behind 102(b).").

127 See, e.g., Nordberg Inc. v. Telsmith, Inc., 881 F. Supp. 1252, 1289–90 (E.D. Wis. 1995) (involving an activity that was deemed a public use even though the invention was independently developed by a third party without the inventor's knowledge).

128 See, e.g., Bergstrom v. Sears, Roebuck & Co., 457 F. Supp. 213, 220, 224 (D. Minn. 1978) (involving an inventor's use of his invention in his own home where visitors were exposed to it), aff'd, 599 F.2d 62 (8th Cir. 1979).

129 See, e.g., Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261, 1265-66 (Fed. Cir. 1986) (involving claims that the public use bar was triggered when the inventor of a puzzle allowed personal acquaintances to try his invention).

130 Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67 (1998) ("An inventor can both understand and control the timing of the first commercial marketing of his invention.").

131 See, e.g., White, supra note 80, at 457 (noting that the rule in Pfaff "serve[s] the proper notice function of § 102(b)").

The question of public use also comes down to control. In this context, however, the inventor is charged with control over the invention itself rather than control over a transaction that may constitute a public use. In other words, courts look to whether the inventor relinquished control of the invention to the public such that reinstating that control with the inventor would strip the public of an invention to which they could reasonably expect access.<sup>132</sup> The importance of the degree of control the inventor exerts over the invention is apparent in the factors generally considered by courts when applying a "totality of the circumstances" test in the context of a public use:

Circumstances that have been deemed material include: the extent to which the inventor retained control over the invention and the dissemination of information concerning the invention during the period of its use, including whether a product embodying the invention was actually distributed to the public; whether the inventor secured a pledge of secrecy from the person to whom the invention was disclosed or before whom a product embodying the invention was used; the number of people to whom the invention or a product embodying the invention was disclosed; whether, if the inventor is relying on a claim of experimental use, records were kept of the progress of the experiment; whether the use of a product embodying the invention inured to the benefit of any member of the public; whether the product embodying the invention was still in the development stage, or whether, instead, the design of the product had been "set in stone"; and whether the person to whom the invention was disclosed or for whose benefit a product embodying the invention was used was charged a fee. Although none of the foregoing circumstances is dispositive, relinquishment of control by the patentee and the presence or absence of a secrecy agreement appear to carry the most weight.133

The lack of an affirmative choice by the inventor to engage in an activity, with the inventor knowing that the activity will be deemed a public use, makes looking to such factors and considering the policies behind the public use bar a more equitable way to administer the bar. If the "ready for patenting" standard were applied in the context of a public use, inventors would be forced to apply for a patent defensively, as soon as they had enough detailed information to satisfy the

<sup>132</sup> See Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 549 (Fed. Cir. 1990) (reiterating its statement in King Instrument Corp. v. Otari Corp., 767 F.2d 853, 860 (Fed. Cir. 1985), that one of the underlying policies of the public use bar is "discouraging removal of inventions from the public domain which the public justifiably comes to believe are freely available").

<sup>133</sup> Articulate Sys., Inc. v. Apple Computer, Inc., 53 F. Supp. 2d 62, 76 (D. Mass. 1999) (emphasis added) (citations omitted).

disclosure requirements of § 112.<sup>134</sup> It is thus more beneficial to the public, and to the overriding goal of patent law of promoting technological progress, to allow the inventor to perfect the invention as he or she sees fit.<sup>135</sup> In doing so, the inventor is not going against any of the policies underlying the bars. He or she is not trying to extend the monopoly—the inventor is merely trying to develop the invention, which results in a more complete disclosure than if the patent were filed as soon as it was "ready for patenting."

Although the same push to file for a patent results from applying the "ready for patenting" standard to the on sale bar, any resulting harm to the inventor is warranted due to the inventor's choice to commercialize the invention. In a sense, the inventor brings the consequences upon himself. If the invention is "ready for patenting," the inventor has notice that the on sale bar has been triggered and can avoid the negative consequences by either (1) not engaging in the sale, or (2) filing for a patent before the one-year grace period is up. The "ready for patenting" standard thus risks pushing the inventor to file a patent application for an invention that may not work or may not be in its optimal form in the face of an imminent sale, but it does so for the sake of preventing the inventor from gaining an unfair commercial advantage by selling an invention that could have been patented. The same justification does not exist in the context of a public use.

The lack of a quantifiable transaction and the passive, ambiguous nature of public use suggest that the more flexible standard of examining the "totality of the circumstances" is more acceptable for, if not essential to, a public use analysis.

# C. The Different Relationship of the Bars to the Experimental Use Doctrine

Another difference between the public use and on sale bars comes from the relationship of each to the experimental use doctrine. Although the experimental use doctrine serves to negate a finding of either a public use or sale, the finding of experimental use is heavily

<sup>134</sup> Section 112 of the Patent Act requires that

<sup>[</sup>t]he specification of the invention shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art... to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

<sup>35</sup> U.S.C. § 112 (2000).

<sup>135</sup> See McAndrews, supra note 12, at 174 (noting her concerns that the "ready for patenting" test "will compel intellectual property owners to file for patent protection much earlier in the development cycle of an invention," which "in turn can lead to the danger of filing on incomplete and untested inventions").

based on the extent of the inventor's control over the invention, as is the finding of a public use.<sup>136</sup> In this way, an experimental use analysis is inherent in a consideration of the factors involved in finding a public use.<sup>137</sup> In addition, the commercialization of an invention that is still in the development stage forfeits further experimentation, whereas public use of the invention before it has been reduced to practice is more likely to be tolerated for the sake of producing a better invention.

The factors courts consider when determining whether a use is experimental illustrate the relationship between a public use and the experimental use doctrine. These factors are summarized in the post-Pfaff case Robinson v. Cannondale Corp. 138 In that case, the district court looked to several factors to find that the plaintiff's patents dealing with a single shock absorber suspension system for a bicycle were not void for public use because the use was experimental:

To determine whether a use is "experimental" the court should look to evidence indicating: (1) the necessity for public testing; (2) the amount of control retained over the operation; (3) the extent of public testing in relation to the nature of the invention; (4) the length of the test period; (5) whether any payment was [made]; (6) whether there was a secrecy obligation; (7) whether progress records were kept; (8) who conducted the experiments; (9) the degree of commercial exploitation during the tests in relation to the purpose of the experimentation; and (10) whether the inventor inspected the machine during the alleged experimentation. 189

<sup>136</sup> See Meyer, supra note 30, at 469 (noting that "[c]ontrol... is often considered the critical factor" in determining the existence of experimental use).

<sup>137</sup> See Tone Bros. v. Sysco Corp., 28 F.3d 1192, 1198 (Fed. Cir. 1994) ("Evidence of experimentation is part of the totality of the circumstances considered in a public use inquiry. The fact that there was experimentation occurring is relevant to the question of whether the activities of the inventor were at odds with any of the . . . policies underlying the public use bar.").

<sup>138 61</sup> U.S.P.Q.2d (BNA) 1823 (C.D. Cal. 2002), vacated, 81 F.App'x. 725 (Fed. Cir. 2003) (finding error in the district court's infringement analysis under the doctrine of equivalents).

<sup>139</sup> Id. at 1826. The Federal Circuit has held that experimental use does not negate a finding of public use or sale. Rather, it is part of the analysis for determining whether there is a public use or commercial sale:

<sup>[</sup>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)?

TP Labs., Inc. v. Prof'l Positioners, Inc., 724 F.2d 965, 971 (Fed. Cir. 1984).

These factors are very similar to those considered for determining a public use. Control over the invention and its use, a major factor in finding a public use, <sup>140</sup> is repeatedly addressed in various forms through factors two, six, eight, and ten. Reliance by the public, the dominant policy against public use, is examined under factor three. Also, the issue of payment and commercial gain, which would indicate that the activity is more of a commercial sale, is covered under factors five and nine and weighs in favor of *not* finding experimental use.

In contrast, applying the on sale bar requires more than determining whether the transaction was exempted as having experimental purposes. First, the activity must be classified as a sale or offer for sale. Under *Pfaff*'s "ready for patenting" test, the act of commercialization is no longer required to occur after the invention has been reduced to practice in order to trigger the on sale bar. The on sale bar is invoked if the invention is "the subject of a commercial offer for sale" and is "ready for patenting." In essence, the invention may still be in the development process, but the inventor's attempt to commercialize the invention, thus beginning the period of monopoly, forfeits any additional time the inventor may have had to conduct further testing and develop a prototype. This result limits the availability of the experimental use doctrine to negate the on sale bar unless the evidence shows that the inventor was not intending to initiate a monopoly, but rather was contracting out experimental work. 144

In his concurring opinion to the post-Pfaff case EZ Dock, Inc. v. Schafer Systems, Inc., Judge Linn explained how the experimental use doctrine should be applied to the on sale bar after Pfaff:

A resolution of the first prong [of the *Pfaff* test, involving the commercial characteristics of the transaction] depends on an objective assessment of the facts surrounding the transaction. . . . In contrast, the second prong focuses on the invention as a whole, implicating

<sup>140</sup> See Articulate Sys., Inc. v. Apple Computer, Inc., 53 F. Supp. 2d 62, 75 (D. Mass. 1999) (noting that "relinquishment of control by the patentee and the presence or absence of a secrecy agreement appear to carry the most weight" in a determination of public use).

<sup>141</sup> See McAndrews, supra note 12, at 169-70.

<sup>142</sup> In his concurrence in EZ Dock, Inc. v. Schafer Systems, Inc., 276 F.3d 1347 (Fed. Cir. 2002), Judge Linn noted that in pre-Pfaff on sale bar cases "an invention seldom would trigger an on-sale bar prior to the time it was reduced to practice." Id. at 1355 (Linn, J., concurring).

<sup>143</sup> Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67 (1998).

<sup>144</sup> See id. at 64 ("The law has long recognized the distinction between inventions put to experimental use and products sold commercially."); see, e.g., EZ Dock, 276 F.3d at 1352–53 ("[T]he inventors showed that their sale was experimental rather than premature commercial exploitation of their invention.").

the invention's stage of development. It is only after the development of the invention has progressed to the stage where it is "ready for patenting," that the second prong of the *Pfaff* test can be said to be satisfied. 145

In other words, the "ready for patenting" test shifted the application of the experimental use doctrine from looking at *when* the sale occurred (i.e., before or after reduction to practice) to *why* the sale occurred.<sup>146</sup>

A similar shift in focus is unnecessary in the context of the public use bar because a public use is not a commercial use. Application of the public use bar is not punitive; it is not meant to discipline an inventor for extending his monopoly. Rather, the purpose of the public use bar is remedial, meant to ensure that the public is not harmed by reliance on an invention that is not in fact freely accessible. However, some reliance by the public must be tolerated in order to allow for experimental use at all.<sup>147</sup> Therefore, assessing a public use requires considering the stage of development during which the use occurs.

If the *Pfaff* test were used in the context of a public use, the point at which the invention was reduced to practice would no longer matter, and as a result the experimental use doctrine would lose much of its force. A viable experimental use doctrine benefits the public, as well as the inventor, because it allows "the invention [to] undergo[] testing that likely will perfect the invention prior to use by the public." The Supreme Court in *Pfaff* expressly noted the importance of the experimental use doctrine and that weighing factors is still appropriate for experimental use analysis because "[t]he experimental use doctrine . . . has not generated concerns about indefiniteness." <sup>149</sup> Likewise, the weighing of factors provided by the "totality of the cir-

<sup>145</sup> EZ Dock, 276 F.3d at 1355 (Linn, J., concurring).

<sup>146</sup> See id. at 1357 (noting that the inquiry of experimental use under the Pfaff test is "whether the primary purpose of the inventor at the time of the sale, as determined from an objective evaluation of the facts surrounding the transaction, was to conduct experimentation"); see also Scaltech Inc. v. Retec/Tetra, L.L.C., 178 F.3d 1378, 1384 n.1 (Fed. Cir. 1999) ("Commercial exploitation, if not incidental to the primary purpose of experimentation, will result in an on sale bar, even if the invention was still in its experimental stage.").

<sup>147</sup> The Supreme Court in *Elizabeth v. Pavement Co.*, 97 U.S. 126, 136 (1877), noted early in the development of the patent system the difference between mere public knowledge of the invention and a public use: "It is not a public knowledge of his invention that precludes the inventor from obtaining a patent for it, but a public use . . . ."

<sup>148</sup> Begalle, *supra* note 58, at 1368–69.

<sup>149</sup> Pfaff, 525 U.S. at 67.

cumstances" approach remains an appropriate, and preferable, means of analyzing a public use.

The public use and experimental use inquiries are uniquely related and thus require the courts to apply the same analytical framework to each. Both emphasize control over the invention, and both require courts to consider the timing of the use with respect to when the invention was reduced to practice. Application of *Pfaff*'s "ready for patenting" standard in the context of a public use would strip the experimental use doctrine of its force, a result the Supreme Court never intended.

#### CONCLUSION

Patent law in general has undergone much change in the last two hundred years, and the statutory bars of § 102(b) have not been immune to that change. The courts have struggled with how best to apply the public use and on sale bars to specific cases in a way that achieves a just result for both the inventor and the public.

Many hailed the Supreme Court's 1998 decision in *Pfaff v. Wells Electronics, Inc.* as the answer to years of discontent that had been generated by the uncertainty and ambiguity of the "totality of the circumstances" test and its predecessors. Although the Court's two-prong test may have revolutionized the application of the on sale bar, the Court was silent as to the public use bar. As a result, the Federal Circuit and the lower courts have continued to apply the "totality of the circumstances" test when dealing with public use and, with the exception of the decision in *SmithKline II*, continue to apply that standard today.

The Federal Circuit's brief extension of *Pfaff* to public use in *SmithKline II* leads one to consider how appropriate a *Pfaff*-like test would be in the context of the public use bar. This Note concludes that although the "ready for patenting" test of *Pfaff* may work for the on sale bar, the public use bar requires the more flexible analysis provided by the "totality of the circumstances" test. The public use bar, although similar in some respects to the on sale bar, has different underlying policy justifications, consists of activities that are different by their nature from those of the on sale bar, and is intricately related to the experimental use doctrine. For these reasons, maintaining the multi-factor "totality of the circumstances" test for public use is the best way to ensure that the public will not be stripped of an invention that has been placed in the public domain and that the inventor will be allowed the time to perfect the work, ultimately providing the public with the fullest possible disclosure of the invention.

No test is perfect. There is no magic formula that, once found, will ensure a just result in all cases. That is why we have the court system, judges and juries, to hear both sides of a case and decide the outcome. True, the "totality of the circumstances" test requires a weighing of factors against policies, but courts are used to such balancing. By allowing them to consider all the circumstances surrounding the controversial activity of the inventor in a case of public use, the inventor's motives and the impact on the public can be accurately gauged, and the goal of patent law to promote the technological progress of society can be achieved.