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Article

**SIX PATENT LAW PUZZLERS**

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**\*2 Introduction**

To call patent law complex is to call the sky blue or the ocean vast and deep. Patent law's complexity has long been acknowledged, and notwithstanding reform proposals aimed at simplification, it is likely to remain complex.<sup>1</sup> This pervasive complexity stems at least in part from the goal of patent law, from the underlying technology to which patent law applies, and also from the interaction between these two factors.

Patent law's goal--"[t]o promote the Progress of Science and useful Arts"<sup>2</sup>--invites complexity because it requires the law to craft a careful balance between encouraging innovation by awarding limited exclusivity without stifling competition and advancement.<sup>3</sup> The complexity of patent law is also a function of the frequently complex technology to which it applies.<sup>4</sup> These two contributors to complexity<sup>3</sup> also interact with one another. Advances in technology not infrequently require patent law, which must maintain its precarious balance, to evolve by addressing legal questions of first impression.<sup>5</sup> Questions of first impression are especially likely to arise when technology evolves in an unforeseen way. Yet, in an important sense, unforeseen technological evolution is precisely what the patent law seeks to encourage. To this extent, at least, patent law's complexity is entrenched: technology must advance for patent law to justifiably exist,<sup>6</sup> and as technology evolves, patent law must work to keep up.

To recognize that hard or puzzling issues of patent law are inevitable, however, does not mean that when confronted with those issues it is best to simply succumb to the confusion that complexity invites. Rather, the community should strive to develop and maintain rules of patent law that are both: (1) consistent with the constitutionally proclaimed goal of promoting the useful arts and sciences; and (2) as consistent across like cases as possible, despite the inevitable complexity of the task.

Congress and the Court of Appeals for the Federal Circuit are each responsible for ensuring that the complexities of patent law are resolved in closest fidelity to the utilitarian goal of the patent system, but the Federal Circuit bears the brunt of the responsibility for bringing coherence and predictability to patent law.<sup>7</sup> They cannot be expected to accomplish these Herculean tasks without input from those affected by patent law. The Federal Circuit has recognized this, as is shown by its distinguished tradition of inviting amicus briefing when confronting difficult and important issues.<sup>8</sup> No doubt this tendency to invite informed discussion has contributed<sup>4</sup> to the court's success.<sup>9</sup>

Thus, although the answers to complicated patent law issues are rarely clear, everyone affected can participate in the discussion making it possible to arrive at good answers--answers that are consistent with the goals of patent law, that yield predictable results, and are consistent across like cases. As a contribution to that discussion, this Article evaluates six difficult patent-law issues that are currently in need of resolution. Rather than purporting to have easy answers, the discussion compiles and presents the points and counter-points pertinent to the proposed resolution of these six puzzlers. Consideration of these perspectives will strengthen the ultimate resolutions.

Part Two questions what should be the role of dictionaries in claim construction. Part Three discusses whether the presumption of a patent's validity should be weakened or eliminated. Part Four asks whether the Federal Circuit's recent en banc decision in *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GMBH v. Dana Corp.*<sup>10</sup> improved the law regarding willful infringement by abolishing the adverse inference that an opinion of counsel was or would have been unfavorable in cases where the accused infringer fails to obtain or produce an exculpatory opinion, and holding that a substantial defense to infringement is one factor to be considered but is not per se sufficient to defeat liability for willful infringement, and discusses the open questions left in *Knorr-Bremse's* wake. Part Five discusses whether intent to cause the infringing acts should be enough to find active inducement. Part Six questions whether the "reasonable royalty" should be calculated before the infringer has sunk its development costs. Part Seven asks whether the Federal Circuit should clarify what constitutes prosecution laches.

## **I. In Claim Construction, Should Dictionaries Reign Supreme??**

Claim construction--determining the meaning of the limitations that govern a patentee's right to exclude--is vital to the stability of patent law.<sup>11</sup> An empirical<sup>5</sup> study of the Federal Circuit's post-*Markman II*<sup>12</sup> claim construction decisions through November 1, 2002 by Wagner and Petherbridge reports that the court's claim construction rulings show a significant and persistent split between proceduralists and judges who favor a holistic approach to claim construction.<sup>13</sup>

This split has been crystallized in recent decisions analyzing the role of dictionaries in claim construction. Although many decisions address the issue, two are particularly illustrative of the difference: *E-Pass Technologies, Inc. v. 3Com Corp.*,<sup>14</sup> and *Combined Systems, Inc. v. Defense Technology Corporation of America*.<sup>15</sup> The basic question is: in determining the scope of claims, which should we look at first--the dictionary or the specification?

In *E-Pass*, the Federal Circuit vacated the district court's grant of summary judgment of noninfringement due to an erroneous construction of the claim term "electronic multi-function card."<sup>16</sup> This opinion, authored by Judge Dyk, joined by Judges Clevenger and Linn--a panel Wagner and Petherbridge characterizes as proceduralist<sup>17</sup>--illustrates an approach to claim

construction under which dictionaries play a seemingly paramount role.

E-Pass had sued 3Com, alleging that 3Com's "Palm Pilot" personal digital assistants infringed claim 1 of U.S. Patent No. 5,276,311 ("the '311 patent").<sup>18</sup> That claim provided, in pertinent part:

A method for enabling a user of an electronic multi-function card to select data from a plurality of data sources such as credit cards, check cards, customer cards, identity \*6 cards, documents, keys, access information and master keys comprising the steps of: . . .<sup>19</sup> The district court construed "electric multi-function card" to mean "[a] device having the width and outer dimensions of a standard credit card with an embedded electronic circuit allowing for the conversion of the card to the form and function of at least two different single-purpose cards."<sup>20</sup>

The sole question on appeal was whether the district court properly interpreted the claim term at issue to require specific industry standard size dimensions.<sup>21</sup> Relying heavily on dictionary definitions, the Federal Circuit held that it did not.<sup>22</sup>

The court described its approach to claim construction, as follows:

In order to construe a disputed claim term, we first seek the ordinary meaning of the claim term. *Texas Digital Sys. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002). We resort initially to the relevant dictionary definitions to determine the ordinary meaning of the term "card."<sup>23</sup> The court noted that following oral argument in the case, it requested the parties to provide supplemental briefing identifying relevant dictionary definitions.<sup>24</sup> The court then cited several definitions from Merriam-Webster's, Random House, and the Oxford English dictionaries, none of which provided specific length, width, or depth measurements for the term "card."<sup>25</sup>

Although the court stated that in determining ordinary meaning, "we also look to the usage of the disputed claim term in context,"<sup>26</sup> the analysis relegated the specification to a secondary role. After noting that nothing in the other claim terms defining the card suggested a size limitation, the court stated:

Generally speaking, we indulge a "heavy presumption" that a claim term carries its ordinary and customary meaning. However, we next look to the specification to determine "whether the presumption of ordinary and customary meaning is rebutted."<sup>27</sup> \*7 The court in *E-Pass* thus suggested that unless the patentee acted as his or her "own lexicographer and imbued the claim terms with a particular meaning or disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction,"<sup>28</sup> the specification would not alter the interpretation of the claim. Although the specification of the '311 patent stated that "[p]articular advantages are provided by the simple form of the electronic multi-function card which has the outer dimensions of usual credit or check cards," and noted that credit cards "normally have standardized dimensions,"<sup>29</sup> the court stated that it must interpret claims in light of the specification without unnecessarily importing limitations, and concluded that "the words 'simple form' and 'normally' suggest that the card may deviate from the usual dimensions."<sup>30</sup> Thus, the court concluded that:

[I]n this context, the statements that the "electronic multi-function card has the outer dimensions of usual credit or check cards" and that credit cards "normally have standard dimensions" suggest a preferred aspect of the invention subject to variability rather than a precise definition.<sup>31</sup> Similarly, although the specification described "electronic storages in a card-like very flat housing," as an aspect of the invention, and noted that this aspect has been practiced in the form of check-card calculators "which only have a thickness hardly larger than that of usual . . . credit cards,"<sup>32</sup> the court concluded that these statements described the earlier technology and a preferred embodiment and were not a lexicographic definition of the size of the claimed invention.<sup>33</sup>

In a footnote, the court noted that "[w]here claim language is ambiguous, the purpose of the invention described in the specification may, of course, sometimes be useful in resolving the ambiguity."<sup>34</sup> Nevertheless, the court found no ambiguity in the claim term "card" and criticized the district court for having limited the claim in light of the perceived purpose of the invention (because a bulky card would not serve the purpose of simplifying the use of credit cards).<sup>35</sup>

\*8 The dictionary-dominant approach to claim construction taken in *E-Pass* and other recent decisions diverges from the approach taken in other Federal Circuit cases.<sup>36</sup> *Combined Systems, Inc. v. Defense Technology Corporation of America* illustrates the alternative approach.<sup>37</sup> *Wagner and Petherbridge* characterize the judges comprising the *Combined Systems* panel as a holistic judge and two swing judges.<sup>38</sup> Judge Michel, one of the so-called swing judges, authored the opinion.

In *Combined Systems*, the Federal Circuit affirmed the district court's claim construction and resulting grant of summary judgment of noninfringement.<sup>39</sup> The parties competed in the field of low-lethality anti-personnel munitions used to incapacitate people without causing serious injury or death.<sup>40</sup> *Combined Systems* sued *Defense Technology Corporation of America*, alleging infringement of U.S. Patent No. 6,202,562 ("the '562 patent") directed to a method of shaping a low-lethality projectile.<sup>41</sup> Several steps of the claimed method, involving forming folds, were at issue.<sup>42</sup> Claim 1, the sole claim of the '562 patent, read, in pertinent part, as follows:

A method of shaping a projectile so as to have a specified low-lethality consequence upon impact against an individual, said shaping method comprising the steps of

**\*9 . . . .**

using preliminarily an unfilled tubular sock-like projectile body of fabric construction material having a closed front end and a rear edge bounding a rear opening thereinto,

filling through said rear opening of said tubular sock-like projectile body a selected amount of lead shot to assume a position therein against said closed end,

forming folds in said tubular sock-like projectile body immediately forward of said rear opening thereof,

inserting said formed folds of said tubular sock-like projectile body into said projectile compartment front opening. . . .<sup>43</sup> The district court granted the defendant's motion for summary judgment of noninfringement on the grounds that "to the extent any 'folds' are ever formed" in the defendant's process, "they are created as part of the process of insertion [of the projectile into the shell] and not prior to it."<sup>44</sup> On appeal, *Combined Systems* challenged the district court's claim construction, which had relied in part on the *American Heritage* dictionary definition of the term "fold" to conclude that the "forming folds" limitation required the deliberate and systematic creation of folds.<sup>45</sup>

The Federal Circuit affirmed, relying on a methodology that emphasized the role of the specification and reduced the status of dictionaries.<sup>46</sup>

The court began by noting two canons of claim construction on which proponents of both approaches agree. First, "[t]he language of the claim defines the boundary of its scope," and accordingly, claim construction "begins and ends in all cases with the actual words of the claim."<sup>47</sup> Second, claims must be construed "as they would be understood by a person of ordinary skill in the art to which the invention pertains."<sup>48</sup>

The court's description of the role of the specification then proceeded to expose the difference in claim construction methodology.<sup>49</sup> In *Combined Systems*, the Federal Circuit described the role of the specification as follows:

"The words used in the claim[] are interpreted in light of the intrinsic evidence of record, including the written description, the drawings, and the prosecution history, if in evidence." *Teleflex*, 299 F.3d at 1324. "In the absence of an express intent to impart a **\*10** novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art." *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003).<sup>50</sup> Thus, under the approach taken in *Combined Systems*, the specification plays an important role, not only if the patentee has acted as his or her own lexicographer, but also by informing the context from which the relevant person of ordinary skill in the art would interpret the claims. The Federal Circuit explained that the district court relied on the specification, in addition to the dictionary, to conclude that the ordinary meaning of "forming folds" required deliberate and systematic creation.<sup>51</sup> In response to the plaintiff's contention that the district court improperly placed undue weight on the dictionary definition, which constitutes extrinsic evidence, the Federal Circuit stated, "[h]ad the district court relied exclusively on the dictionary definition or allowed it to overcome clear language in the patent itself, its methodology (although not necessarily its conclusion) would have been clearly wrong."<sup>52</sup>

The court in *Combined Systems* concluded that the district court had not indiscriminately relied on a dictionary definition.<sup>53</sup> Rather, the district court had reviewed and considered the written description and figures and had not allowed a dictionary definition to overcome clear language in the patent.<sup>54</sup>

Nevertheless, the Federal Circuit cautioned that the district court “may have read some isolated statements in certain recent opinions too rigidly and in isolation from the entire body of our claim construction jurisprudence.”<sup>55</sup> Without identifying those isolated statements or recent opinions, the court explained that the role of the specification is not limited to determining whether it contradicts a dictionary definition of the claim term at issue.<sup>56</sup> The court stated:

If, which we doubt, . . . the district court believed that our cases permit consulting the specification solely for the limited purpose of determining whether it contradicts the dictionary meaning of a claim term, such a view is not supported by our case law, read as a whole. As we have recently stated, “[t]he written description must be examined in every case, because it is relevant not only to aid in the claim construction analysis, but also to determine if the presumption of ordinary and customary meaning is rebutted.” *Brookhill-Wilk*, 334 F.3d at 1298. Thus use of the specification to “determine if the presumption \*11 of ordinary and customary meaning is rebutted” is no more important than examining it “to aid the claim construction analysis . . . .”<sup>57</sup> Thus, the roles of dictionary definitions and of the specification in claim construction contemplated by *E-Pass* and *Combined Systems* appear at odds. That is our first patent law puzzler: should the dictionary reign supreme? Because everyone agrees that claim construction starts with the language of the claims, and that (absent situations where the patentee clearly adopts another definition) claims must be given their ordinary meaning to a person of ordinary skill in the art, the question really is: which approach is more likely to arrive at that meaning?

The strongest arguments in favor of the dictionary-dominant approach appear in the decisions applying it. In *Texas Digital*, for example, the Federal Circuit, in an opinion authored by Judge Linn, wrote:

Dictionaries, encyclopedias and treatises, publicly available at the time the patent is issued, are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art. Such references are unbiased reflections of common understanding not influenced by expert testimony or events subsequent to the fixing of the intrinsic record by the grant of the patent, not colored by the motives of the parties, and not inspired by litigation.<sup>58</sup> Although noting that intrinsic evidence may play an important secondary role, the court stated that where the intrinsic record is consistent with multiple dictionary definitions, the claims may be construed to encompass all such meanings.<sup>59</sup> Consulting the written description and prosecution history first, however, would invite improperly importing limitations into the claims.<sup>60</sup> Consequently, according to the court in *Texas Digital*, a claim construction methodology that examines dictionary definitions first is most likely to produce a proper interpretation of the claims:

By examining relevant dictionaries, encyclopedias and treatises to ascertain possible meanings that would have been attributed to the words of the claims by those skilled in the art, and by further utilizing the intrinsic record to select from those possible meanings the one or ones most consistent with the use of the words by the inventor, the full breadth of the limitations intended by the inventor will be more accurately determined \*12 and the improper importation of unintended limitations from the written description into the claims will be more easily avoided.<sup>61</sup> One problem with this approach, as observed by the court in *Combined Systems*, is that dictionary definitions can be grossly out of context.<sup>62</sup> The *Combined Systems* Court quoted from its opinion in *Renshaw PLC v. Marposs Societa’ per Azioni*,<sup>63</sup> which noted that one of the Federal Circuit’s predecessors had admonished that: “Indiscriminate reliance on definitions found in dictionaries can often produce absurd results.”<sup>64</sup> Moreover, in many instances a phrase is more than the sum of its words. Though the dictionary definition of individual words may shed some light on the definition of a phrase, the phrase often takes on a specific meaning when used by members of an industry which would not be picked up by the dictionary definition of the component words.

In addition, putting the dictionary first may yield different results depending on the date the dictionary was published and the specific dictionary used. Dictionaries--which are written completely without consideration of the invention being claimed--may be objective, but they are just as frequently uninformed and may lag behind technology. Even when dictionaries dated at the time of invention are used, meaning--particularly in contexts involving rapidly developing technology--may have evolved among those of ordinary skill in the art faster than it was documented in any dictionary, technical or otherwise.

For example, before the advent of the modern digital computer, definitions of “computer” included people who perform computations.<sup>65</sup> Dictionary definitions of the term “computer” continued to include that definition even after analog and digital computers became well known in the art: the *Random House American College Dictionary* from 1963 includes a definition of “computer” as: “one who computes.”<sup>66</sup> Imagine a specification from 1963 discussing “computers” and referring to them only in the context of electrical devices but not specifically excluding people. Should the claim term “computer” in such a specification be construed to include “one who computes?” The dictionary-dominant approach seems to require such a result unless the specification expressly excludes people. But it seems clear that at least in some cases, specifications will

contain contextual discussion that should \*13 limit the scope of the claims, even where there is no express inconsistency with a dictionary definition from the pertinent time.

On the issue of which approach to claim construction should prevail, the authors unanimously would stick with the one taken in Combined Systems rather than the dictionary-dominant E-Pass approach. We are persuaded that although using the specification may be more difficult and perhaps more time consuming, the context provided by the specification will result in a truer meaning of the disputed term than will melding strings of words plucked from dictionaries. Additionally, the specification is not biased toward litigation, and is the best objective and contemporaneous definition available. This is not to say that the dictionary has no place in claim construction--we would still certainly use contemporaneous dictionaries to provide a "sanity check" on the construction of a term.

Whichever methodology prevails, one thing is certain: litigants and district courts would benefit from a swift resolution. The Federal Circuit has already recognized as much.

On July 21, 2004, the court granted a petition for rehearing en banc in Phillips v. AWH Corp.,<sup>67</sup> vacating the panel decision and certifying seven questions on the issue of claim construction. In the now-vacated panel decision, Judge Lourie, joined by Judge Newman, construed the term "baffle" in a patent related to vandalism-resistant building modules to exclude those angled at 90 degrees.<sup>68</sup> The panel majority explained:

From the specification's explicit descriptions of the invention, we conclude that the patentee regarded his invention as panels providing impact or projectile resistance and that the baffles must be oriented at angles other than 90 degrees. Baffles directed at 90 degrees cannot deflect projectiles as described in the '798 patent, and, in any event, are disclosed in the prior art.<sup>69</sup> Judge Dyk dissented in part, arguing that the panel majority erroneously construed the term "baffle" more narrowly than its ordinary meaning, improperly imposing a structural limitation from the patentee's preferred embodiments.<sup>70</sup> Phillips thus brought the divergent approaches to claim construction exemplified by cases such as E-Pass and Combined Systems to a head in a case in which the approaches yielded very different results. The need to clarify the proper result--and the proper approach--was clear.

The Federal Circuit has taken this opportunity to provide much-needed clarification, certifying a thorough set of questions relating to the proper approach to \*14 claim construction. It invited the parties and amicus curiae to submit briefs directed to the following questions:

1. Is the public notice function of patent claims better served by referencing primarily to technical and general-purpose dictionaries and similar sources to interpret a claim term or by looking primarily to the patentee's use of the term in the specification? If both sources are to be consulted, in what order?
2. If dictionaries should serve as the primary source for claim interpretation, should the specification limit the full scope of claim language (as defined by the dictionaries) only when the patentee has acted as his own lexicographer or when the specification reflects a clear disclaimer of claim scope? If so, what language in the specification will satisfy those conditions? What use should be made of general as opposed to technical dictionaries? How does the concept of ordinary meaning apply if there are multiple dictionary definitions of the same term? If the dictionary provides multiple potentially applicable definitions for a term, is it appropriate to look to the specification to determine what definition or definitions should apply?
3. If the primary source for claim construction should be the specification, what use should be made of dictionaries? Should the range of the ordinary meaning of claim language be limited to the scope of the invention disclosed in the specification, for example, when only a single embodiment is disclosed and no other indications of breadth are disclosed?
4. Instead of viewing the claim construction methodologies in the majority and dissent of the now-vacated panel decision as alternative, conflicting approaches, should the two approaches be treated as complementary methodologies such that there is a dual restriction on claim scope, and a patentee must satisfy both limiting methodologies in order to establish the claim coverage it seeks?
5. When, if ever, should claim language be narrowly construed for the sole purpose of avoiding invalidity under, e.g., 35 U.S.C. §§102, 103 and 112?
6. What role should prosecution history and expert testimony by one of ordinary skill in the art play in determining the

meaning of the disputed claim terms?

Consistent with the Supreme Court's decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), and our en banc decision in *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed. Cir. 1998), is it appropriate for this court to accord any deference to any aspect of trial court claim construction rulings? If so, on what aspects, in what circumstances, and to what extent?<sup>71</sup>

\*15 Judge Rader concurred and noted that the court should also receive commentary on whether claim construction is amenable to resolution by strict algorithmic rules.<sup>72</sup>

Chief Judge Mayer alone dissented from the order granting en banc review.<sup>73</sup> He explained that, in his view, until the Court reconsiders its holding that claim construction is a pure question of law, "any attempt to refine the process is futile."<sup>74</sup> Chief Judge Mayer urged the court to eschew the fiction that claim construction is a matter of law on the grounds that claim construction obviously depends on underlying factual determinations that should be reviewed for clear error.<sup>75</sup> The dissent concluded by stating:

To pretend otherwise inspires cynicism. Therefore, and because I am convinced that shuffling our current precedent merely continues a charade, I dissent from the en banc order.<sup>76</sup> Whether the en banc decision in *Phillips* resolves the questions raised by the divergent approaches exemplified in the Federal Circuit's recent claim construction jurisprudence remains to be seen. Even if it raises additional questions or fails to resolve every open question about claim construction, rehearing *Phillips* en banc is an admirable proactive move to address crucial and complex questions of patent law. Particularly if the community participates in the debate by responding to the request for amicus briefing, *Phillips* promises the possibility of genuine advancement. It need not be a mere charade.

## II. Should The Presumption of Validity Given to Patents Be Weakened or Abolished?

Patents currently receive a statutorily-granted presumption of validity. Section 282 of Title 35 of the U.S. Code provides that "[a] patent shall be presumed valid" and that "[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity."<sup>77</sup> To overcome this presumption, the Federal Circuit has held that "the party challenging a patent must prove facts supporting a determination of invalidity by clear and convincing evidence."<sup>78</sup>

\*16 The origins of the presumption are actually judicial, rather than legislative. Section 282 first codified the presumption of validity in 1952.<sup>79</sup> At that time an extensive body of case law established and applied the presumption of validity.<sup>80</sup> Section 282 was intended to codify then-existing law regarding the presumption.<sup>81</sup> As the Federal Circuit later explained, the rationale behind this judicially-created presumption "was the basic proposition that a government agency such as the . . . Patent Office was presumed to do its job."<sup>82</sup>

But is this presumption warranted? Recently, the Federal Trade Commission ("FTC") concluded that at least the clear and convincing evidence standard arising from the presumption is not justified. In its October 2003 report,<sup>83</sup> the FTC made "recommendations for the patent system to maintain a proper balance with competition law and policy."<sup>84</sup> One of those recommendations was that Congress should enact legislation providing that validity challenges must be determined based on a preponderance of the evidence standard.<sup>85</sup> The report explained:

An issued patent is presumed valid. Courts require a firm that challenges a patent to prove its invalidity by "clear and convincing evidence." This standard appears unjustified. A plethora of presumptions and procedures tip the scales in favor of the ultimate issuance of a patent, once an application is filed. In addition, as many have noted, the PTO is underfunded, and PTO patent examiners all too often do not have sufficient time to evaluate patent applications fully. These circumstances suggest that an overly strong presumption of a patent's validity is inappropriate. Rather, courts should require only a "preponderance of the evidence" to rebut the presumption of validity.<sup>86</sup> \*17 Among the presumptions and procedures noted by the FTC was the fact that the Patent Office must issue a patent unless it can establish a prima facie case for rejection.<sup>87</sup> Currently, the Patent Office has approximately 3,000 examiners.<sup>88</sup> Hearing participants provided various estimations of the amount of time examiners can devote to analyze a patent application, search for prior art, evaluate patentability, negotiate with the applicant, and write up

conclusions.<sup>89</sup> No estimate was greater than 25 hours per application.<sup>90</sup> James Rogan, then-director of the Patent Office, has described the agency as experiencing a state of crisis.<sup>91</sup> These considerations seem to counsel against the clear and convincing proof burden.

Patentees might oppose abolishing the presumption or reducing the quantum of proof necessary to establish invalidity on the grounds that the change would suddenly and retroactively decrease the value of their portfolios. The relatively high rate of patents invalidated in litigation<sup>92</sup> could cut both ways--instead of suggesting that the Patent Office grants too many patents, perhaps the system is working fine, or patents are being too easily invalidated in litigation. Moreover, instead of abolishing the presumption, Congress could increase funding for the Patent Office, allowing it to hire more examiners with greater expertise. Such an adequately-funded organization of neutral, knowledgeable evaluators could do a job evaluating patentability that would be worthy of the presumption.

But throwing more money into the Patent Office would not address the numerous questionable patents the agency has already issued. And because the application process is *ex parte*, and the duty of candor does not require applicants to search for pertinent prior art, increasing funding to the Patent Office would not necessarily solve the problem.<sup>93</sup> From an economic perspective, it may be cheaper to focus on making detailed validity determinations only in cases where patents are challenged.<sup>94</sup> To the extent patentees are upset by the prospect of a decrease in the \*18 value of their portfolio, this concern stands to be offset by the benefit to the public of lifting restrictions on the use of technology that may exist due to improvidently granted patents. Perhaps the validity of patents--which the PTO grants based on the preponderance of the evidence<sup>95</sup>--should be evaluated, when challenged in litigation, according to that same standard.

Prior to making the recommendations in its October 2003 report, the FTC, in conjunction with the Department of Justice, held extensive hearings, considered written submissions, and conducted independent research.<sup>96</sup> Nor is the FTC the first to conclude that a strong presumption of validity is unwarranted.<sup>97</sup> Whether or not Congress adopts it, the FTC's recommendation should prompt serious consideration of whether the presumption, requiring as it presently does, proof of invalidity by clear and convincing evidence, should remain the law.

In considering the fate of the presumption, the treatment given to other agency determinations can be instructive. Completely abolishing the presumption of validity would afford less deference to Patent Office determinations regarding patents than to its determinations regarding trademarks, which are also presumed valid.<sup>98</sup> Trademarks are presumed valid, but the burden lying with the challenger is proof by preponderance of the evidence rather than by clear and convincing evidence.<sup>99</sup> Registered copyrights also enjoy a presumption of validity that shifts the proof burden to the challenger.<sup>100</sup> Preponderant evidence defeats this presumption too.<sup>101</sup>

\*19 Thus, the requirement of proof by clear and convincing evidence to rebut the presumption of validity appears unique to patent law. Although the presumption of validity is statutory, the resulting proof burden was judicially imposed. Consequently, the Federal Circuit, sitting en banc, could enact the FTC's recommendation to reduce the quantum of proof required to rebut the presumption without legislation.<sup>102</sup>

Doing so would also remedy another curiosity that arises by comparing the current presumption to the treatment of agency decisions in other contexts. Generally, reviewing courts may affirm agency decisions only on the basis of the agency's rationale.<sup>103</sup> In cases where a challenger introduces prior art that the Patent Office did not consider when deciding whether to issue the patent, the current presumption affords deference to a decision the Patent Office never made. The presumption currently requires proof of invalidity by clear and convincing evidence, even in cases in which the examiner--had he or she been aware of the prior art cited by the challenger-- might not have allowed the patent to issue.

As we see it, the Federal Circuit should consider three choices: (i) maintain the presumption and the requirement of clear and convincing evidence; (ii) maintain the burden and require a preponderance of the evidence to defeat the presumption; or (iii) eliminate the presumption completely.

If the decision were up to us, we would maintain the presumption of validity, but we would allow the presumption to be overcome by a preponderance of the evidence. We are persuaded that the clear and convincing evidence standard stacks the decks too strongly in favor of the patent. We see no reason why the Patent Office's decision to grant a patent should be entitled to greater deference than a decision to grant a copyright or trademark, and requiring a preponderance of the evidence would bring the treatment of the Patent Office's decision to grant a patent into closer alignment with the treatment of other



similar agency decisions. We believe this would also help ameliorate the problem of encouraging the jury to defer to an Examiner's decision where the Examiner did not have certain prior art references and could not consider them in connection with granting a patent.

### III. What Questions Remain in the Law of Willfulness In Knorr-Bremse's Wake?

In the 1986 decision *Kloster Speedsteel AB v. Crucible, Inc.*,<sup>104</sup> the Federal Circuit reversed an implicit finding that the defendant had not willfully infringed \*20 the plaintiff's patent.<sup>105</sup> In so doing, the court recognized the propriety of an adverse inference that many have come to characterize as having created a Hobson's choice for defendants: rely on advice of counsel and be forced to disclose communications that would otherwise be privileged, or choose not to rely on advice of counsel and face an adverse inference that you either failed to exercise reasonable care or that any advice you obtained was unfavorable to your defense against alleged patent infringement.<sup>106</sup>

In *Kloster Speedsteel*, the Federal Circuit noted that the district court did not have the benefit of its intervening decision in *Underwater Devices Inc. v. Morrison-Knudsen Co. Inc.*<sup>107</sup> which held that "where a potential infringer has actual notice of another's patent rights, he has an affirmative duty to exercise due care to determine whether or not he is infringing."<sup>108</sup> Although it noted that "not every failure to seek an opinion of competent counsel will mandate an ultimate finding of willfulness,"<sup>109</sup> the court held that:

In the present case, the totality of the circumstances, including the failure to seek advice of counsel, makes any finding of non-willfulness clearly erroneous and compels the only alternative finding, i.e., that Stora's infringement was willful.

...

Stora has not even asserted that it sought advice of counsel when notified of the allowed claims and Crucible's warning, or at any time before it began this litigation. Stora's silence on this subject, in alleged reliance on the attorney-client privilege, would warrant the conclusion that it either obtained no advice of counsel or did so and was advised that its importation and sale of the accused products would be an infringement of valid U.S. patents.<sup>110</sup> The emphasized language authorized the imposition of an adverse inference based on the defendant's exercise of the attorney-client privilege. Subsequently, in *Fromson v. Western Litho Plate and Supply Co.*,<sup>111</sup> the court reiterated that:

Where the infringer fails to introduce an exculpatory opinion of counsel at trial, a court must be free to infer that either no opinion was obtained or, if an opinion were obtained, it was contrary to the infringer's desire to initiate or continue its use of the patentee's invention.<sup>112</sup> \*21 The potential for drawing such an inference in every case where the defendant chooses not to waive the privilege is at odds with the law requiring that willfulness be assessed based on the totality of the circumstances,<sup>113</sup> and the law stating that an opinion is not always necessary to avoid liability for willful infringement.<sup>114</sup> Some decisions state that there are no "hard and fast per se rules" regarding willfulness.<sup>115</sup> Given that many factors should be considered in determining whether a party's infringement was willful,<sup>116</sup> does the drawing of an adverse inference elevate the need to obtain (and disclose) an opinion of counsel to an improper stature?

Recently, the Federal Circuit concluded that it does. More than a decade after acknowledging the dilemma created by its willfulness precedent,<sup>117</sup> the Federal Circuit sua sponte took the appeal in *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GMBH v. Dana Corp.*,<sup>118</sup> en banc. On September 13, 2004, the court issued its en banc opinion in this case, abolishing the adverse inference.<sup>119</sup> The court wrote:

We now hold that no adverse inference that an opinion of counsel was or would have been unfavorable flows from an alleged infringer's failure to obtain or produce an exculpatory opinion of counsel. Precedent to the contrary is overruled.<sup>120</sup>

The court explained that "an affirmative duty of due care to avoid infringement of the known patent rights of others" still exists, but that the failure to obtain \*22 or produce an exculpatory opinion of counsel "shall no longer provide an adverse inference or evidentiary presumption that such an opinion would have been unfavorable."<sup>121</sup>

The court also vacated the district court's judgment of willful infringement and remanded the case for reconsideration of the totality of the circumstances without the adverse inference.<sup>122</sup> The district court had held that infringement regarding the

defendants' Mark II brake product was willful in part because they did not stop using the product after it had been held to infringe, but also because the defendants did not introduce any exculpatory opinions of counsel.<sup>123</sup>

In taking the Knorr-Bremse appeal en banc "to reconsider its precedent concerning the drawing of adverse inferences, with respect to willful patent infringement, based on the actions of the party charged with infringement in obtaining legal advice, and withholding that advice from discovery,"<sup>124</sup> the Federal Circuit had invited the parties, as well as amicus curiae,<sup>125</sup> to submit additional briefs addressing four questions, three of which affect the law of willfulness in other cases.<sup>126</sup> The questions taken en banc were:

1. When the attorney-client privilege and/or work product privilege is invoked by a defendant in an infringement suit, is it appropriate for the trier of fact to draw an adverse inference with respect to willful infringement?
2. When the defendant has not obtained legal advice, is it appropriate to draw an adverse inference with respect to willful infringement?
3. If the court concludes that the law should be changed, and the adverse inference withdrawn as applied to this case, what are the consequences for this case?

\*23 4. Should the existence of a substantial defense to infringement be sufficient to defeat liability for willful infringement even if no legal advice has been secured?<sup>127</sup>

More than twenty entities responded to the request for amicus briefing.<sup>128</sup> The amicus briefs overwhelmingly recommended abolishing the adverse inference and took the position that the existence of a substantial defense should be sufficient to defeat liability for willfulness. Some even recommended abolishing the doctrine of willfulness or limiting willfulness to instances of deliberate copying.<sup>129</sup>

The Federal Circuit abolished the adverse inference but declined to hold that a substantial defense per se bars a finding of willfulness. Not surprisingly-- and perhaps unavoidably --Knorr-Bremse has raised new questions about the law of willfulness. Even so, the decision is sure to be hailed as improving patent law by abolishing the adverse inference. However, it leaves open significant questions that are likely to be the subject of heated debate.

#### **A. Did the Court Eliminate the Hobson's Choice Faced By Defendants?**

Like the amici, the authors believe abolishing the adverse inference was the right thing to do. The rationale the court gave for abolishing the adverse inference in Knorr-Bremse emphasized the inappropriate burdens the inference placed on the attorney-client relationship<sup>130</sup> and making patent law consistent with other areas of the law, in which courts have declined to impose adverse inferences on invocation of the attorney-client privilege.<sup>131</sup> The court also recognized that obtaining opinion \*24 letters regarding every potentially adverse patent is burdensome and costly and that its prior precedent had led to extensive satellite litigation.<sup>132</sup>

Although the amici made these arguments, they also emphasized a different point: an adverse inference is not necessarily factually warranted.<sup>133</sup> The amici suggested that it simply may not be true that the accused infringer either carelessly failed to obtain an opinion of counsel or that the opinion was unfavorable. Other explanations consistent with good faith may apply.

Alternative explanations cited by the amici for why a defendant might obtain, but decline to disclose a favorable opinion, included:

1. Concern that disclosing the opinion would disqualify its author from serving as litigation counsel;<sup>134</sup>
2. a change in the applicable law that might aid an attack on the opinion's competence;<sup>135</sup>
3. an inconsistent claim construction;<sup>136</sup>

\*25 4. new facts contravening a defense that previously seemed strong;<sup>137</sup>

5. concern that the scope of any waiver will be construed broadly;<sup>138</sup>
6. concern that the opinion would alert the patentee to new arguments, or otherwise make her case for her;<sup>139</sup>
7. the opinion contradicts positions advanced in litigation or takes positions not advanced in litigation;<sup>140</sup>
8. concern that the author would make a poor witness or has become hostile to the client;<sup>141</sup>
9. concern that the opinion would prematurely disclose trial tactics, settlement-related positions, admissions on different issues, or the identity of expert witnesses;<sup>142</sup>
10. concern that the opinion contains trade secrets or other confidential business information;<sup>143</sup> and
11. concern that written statements of foreign actors who lack facility with English may create statements that can be made, inappropriately, to look inculpatory.<sup>144</sup>

The Federal Circuit's opinion in *Knorr-Bremse* did not elaborate on these considerations, perhaps because some of them--such as the concern for disqualifying litigation counsel--do not necessarily counsel in favor of prohibiting the fact-finder from drawing an adverse inference in every case. In contrast, concern for alleviating a chilling effect on attorney-client communications--a concern that persuaded \*26 the court and that the amici persuasively expressed<sup>145</sup>--counsels in favor of prohibiting the fact-finder from drawing an adverse inference in any case.

Perhaps the most important question in the wake of *Knorr-Bremse* is whether, as a practical matter, it has actually eliminated the Hobson's choice faced by defendants. Significantly, the Court did not resolve the question of whether the trier of fact can or should be allowed to hear evidence regarding whether or not the defendant sought advice of counsel, or if the defendant did obtain an opinion of counsel, evidence regarding the fact that the defendant received an opinion of counsel and decided not to disclose it for privilege reasons. Though these questions were raised by several amici, they were not specifically at issue in *Knorr-Bremse*, and the Court declined to address them.<sup>146</sup>

The authors believe that as a practical matter, until these questions are answered, defendants will continue to face the same Hobson's choice even though the adverse inferences have been abolished. The reason for this is that although the adverse inference may have been abolished, if juries are still permitted to consider the fact that a defendant chose not to obtain an opinion of counsel (or that the defendant obtained an opinion but has chosen not to disclose it), the practical effect may be the same. Importantly, the duty of care still remains.<sup>147</sup> Coupled with the possibility that plaintiffs may be permitted to present evidence regarding whether the defendant sought advice of counsel, this means that a plaintiff may still be able to argue to a jury that a defendant should be found a willful infringer because it flaunted its duty of care and chose not to obtain advice of counsel in spite of that duty.<sup>148</sup> This is a significant enough risk that, until the Federal Circuit clarifies what evidence may be presented to the jury, defendants will effectively continue to face the same Hobson's choice.<sup>149</sup>

\*27 Another open question is whether *Knorr-Bremse* will encourage companies and individuals to review patents issued to others in their fields. To avoid the burden of having to obtain costly opinion letters regarding every potentially adverse patent, some lawyers prior to *Knorr-Bremse* advised clients not to read patents unless necessary--a result that contravened the public-notice policy behind issuing patents to begin with.<sup>150</sup> On one hand, it would seem that the abolition of the adverse inference where a defendant does not obtain an opinion of counsel should result in a more liberal approach to keeping abreast of the patents issuing in one's field. On the other hand, however, because the duty of care is triggered by knowledge of a patent (as opposed to knowledge of an allegation of infringement), many companies may conclude that nothing has changed and that the safer course is to refrain from reviewing patents in their fields.

## **B. Should a Substantial Defense Negate Willfulness?**

Although many amici suggested that a substantial defense should be sufficient to negate willfulness because defenses established at trial constitute a more reliable basis for determining the strength and reasonableness of a defense,<sup>151</sup> the court declined to adopt a per se rule.<sup>152</sup> Arguments that "[t]he world of competition is full of 'fair fights,'"<sup>153</sup> which should be encouraged,<sup>154</sup> may succeed in precluding liability for willfulness, but in the wake of *Knorr-Bremse*, they will have to succeed on a case-by-case basis.

Although the court did not elaborate on the situations in which a substantial defense might be insufficient, the authors believe such situations may exist. A substantial defense seems to be inconsistent with the bad faith required for willfulness regardless of whether the defense is ultimately successful; however, trial is late in \*28 the game. The authors believe that a good faith belief in a substantial defense at that time should negate willfulness, but it is possible for a defendant to have acted in total disregard of another's patent rights until trial and to then mount a good faith substantial defense at trial.<sup>155</sup> The law should not reward such recklessness.

Some amici suggested as much. The American Intellectual Property Law Association, for example, suggested that a deliberate infringer--one who acts knowing the accused product to be patented and having no defense--should remain subject to liability for enhanced damages regardless of subsequently developed defenses.<sup>156</sup>

Thus, although Knorr-Bremse has raised new questions regarding the law of willfulness, the decision seems to be a significant step in the right direction.

#### **IV. Should the Hypothetical Negotiation Posited in Reasonable Royalty Cases Be Calculated When Infringement Began or, Instead, When the Infringer Had Other Choices and No Sunk Investments?**

The award of damages for patent infringement is governed by 35 U.S.C. § 284, which provides:

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court. In cases where the plaintiff and defendant sold competing products covered by the patent, it may be possible to calculate the plaintiff's actual damages, or lost profits.<sup>157</sup> However, where it is not possible to calculate actual damages, the patent owner is entitled to a reasonable royalty.<sup>158</sup>

Early courts calculating reasonable royalties examined a variety of factors including an established royalty, the nature of the invention, the utility and advantages of the invention, the extent of the use involved, the extent to which the defendant took the plaintiff's property, and the profits and savings that could be made upon its sale or adoption.<sup>159</sup> As the case law evolved, courts formulated what has \*29 been called the "willing buyer and willing seller" rule, which has been defined in these terms:<sup>160</sup>

In fixing damages on a royalty basis against an infringer, the sum allowed should be reasonable and that which would be accepted by a prudent licensee who wished to obtain a license but was not so compelled and a prudent patentee, who wished to grant a license but was not so compelled.<sup>161</sup> In *Georgia-Pacific Corp. v. United States Plywood Corp.*, the court articulated a framework for approximating the outcome of the hypothetical negotiation.<sup>162</sup> This framework has been accepted by the Federal Circuit as an appropriate framework for calculating reasonable royalty damages.<sup>163</sup>

\*30 It appears to be a universally-accepted principle that the hypothetical negotiation is supposed to have occurred either when the patent issued or on the date of first infringement, whichever comes later.<sup>164</sup>

Where does this rule come from? Federal Circuit cases following the rule cite *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*,<sup>165</sup> a Sixth Circuit case predating the creation of the Federal Circuit.<sup>166</sup> In *Panduit*, the court posited that "[t]he key element in setting a reasonable royalty after determination of validity and infringement is the necessity for return to the date when the infringement began."<sup>167</sup> The court went on to explain:

On that date, [the plaintiff] possessed the particular property right found to have been infringed by [the defendant]. On that date, [the plaintiff] had a particular profit margin, and the property right to exclude others from making, using, or selling the patented product. At that point [the defendant] chose to continue the making and selling of the patented product.<sup>168</sup> However, the court later gave a somewhat conflicting explanation of its reasoning:

On the date a patent issues, a competitor which made no investment in research and development of the invention, has four options: (1) it can make and sell a non-infringing substitute product, and refrain from making, using, or selling a product incorporating the patented invention; (2) it can make and sell the patented product, if the patent owner be willing, negotiating a license and paying a reasonable (negotiated) royalty; (3) it can simply take the invention, running the risk that litigation will

ensue and that the patent will be found valid and infringed, or (4) it can take a license under option (2) and thereafter repudiate its contract, challenging the validity of the patent. Determination of a reasonable royalty, after election of option (3), cannot, without injustice, be treated as though the infringer had elected option (2) in the first place.<sup>169</sup> The latter explanation suggests that the rule--setting the hypothetical negotiation at the time the patent issues or at first infringement--only makes sense if the alleged infringer has not yet invested in or developed its own product. Indeed, a defendant who has already invested in research, development, and marketing of its own product by the time a patent issues does not have the same set of choices as a competitor which has made no investment. Panduit is thus itself ambiguous. Did the Panduit court intend for the timing rule to apply only where the alleged infringer has not \*31 developed its own product? Or did it intend for the rule to apply regardless of the circumstances?

The Panduit court did not cite any case law in its discussion of the timing for the hypothetical negotiation.<sup>170</sup> In *Hanson*, the Federal Circuit adopted the Panduit language concerning returning to the date when infringement began with no discussion or debate.<sup>171</sup> The *Hanson* court did not discuss the somewhat inconsistent views expressed within the Panduit opinion regarding the reasoning for the rule or address whether the rule applies to all circumstances or only where the alleged infringer has not researched and developed its own product by the time of first infringement. Subsequent Federal Circuit opinions have cited *Hanson* and *Panduit* for the timing of the hypothetical negotiation without addressing this issue either.<sup>172</sup>

Should the Panduit timing rule apply in all circumstances? Or, if the alleged infringer has already developed a product when the patent issues, should the hypothetical negotiation take place right before research and development commences?

Defendants may argue that when the alleged infringer has invested extensive time and money in researching and developing its own product before the patent issues, it is not fair to presume that the hypothetical negotiation would occur when the patent issues. When the infringer decided to include the infringing feature in its product, it may have determined what it thought the technology was worth. However, by the time the patent issues, the infringer may have spent millions of dollars on research and development, marketed the product extensively, and built up its customer base. At that point, any negotiation would be much more about protecting that investment and preserving the customer base than about the value of the technology. It is not fair for the patentee to obtain an artificially high royalty that is inflated by factors other than the value of the technology. Moreover, in many instances, there may be better data about the value the infringer placed on the technology when it decided to sell the infringing product than later on, when the patent issues.

On the other hand, plaintiffs may argue that calculating the reasonable royalty when infringement begins provides a much needed bright-line rule. Moreover, plaintiffs may argue that any alternative approach would permit infringers an easy escape without paying a real royalty. Additionally, where the infringer has notice of the patent prior to the suit being filed, the infringer arguably has an option not to infringe.

We are persuaded that the hypothetical negotiations should occur at the time the infringer decides to incorporate the infringing technology into its product. We \*32 believe this approach would fairly reflect the real value of the patent, as opposed to unfairly allowing the patentee to capture profits that have nothing to do with the patent, and would yield a more accurate valuation since the infringer would not have to pay an inflated price in order to recover its investment of time, money, and resources.

#### **IV. Should A Finding of Active Inducement Require Intent to Cause Infringement or Merely Intent to Cause the Acts That Constitute Infringement?**

Patent infringement may take the form of direct infringement (the defendant itself infringes the patent) or indirect infringement (liability for direct infringement by others). Liability for indirect infringement may take the form of active inducement pursuant to 35 U.S.C. § 271(b) or contributory infringement in accordance with 35 U.S.C. § 271(c).

The statutory provision for contributory infringement contains an explicit knowledge requirement<sup>173</sup> which the Supreme Court and Federal Circuit have construed to require knowledge of the patent.<sup>174</sup> However, the provision for active inducement contains no explicit knowledge requirement,<sup>175</sup> and the recent *Moba B.V. v. Diamond Automation, Inc.* opinion suggested that to be liable for active inducement, the defendant need only intend for the infringing act to occur.<sup>176</sup> Indeed, *Moba* says nothing about knowledge of the patent. So what is the applicable law? Should the knowledge requirement for inducement to infringe be any different from the requirement for contributory infringement? And what constitutes knowledge of the patent?

In order to answer these questions, it may be useful to review the historical evolution of the law of indirect infringement.

### **\*33 A. Historical Background**

“Prior to the enactment of the Patent Act of 1952, there was no statute which defined what constituted infringement.”<sup>177</sup> However, infringement was judicially divided into two categories: “direct infringement” which was the unauthorized making, using, or selling of the patented invention, and “contributory infringement,” which was any other activity where, although not technically making, using, or selling, the defendant displayed sufficient culpability to be held liable as an infringer.<sup>178</sup> Such liability was under a theory of joint tortfeasance wherein one who intentionally caused, or aided and abetted, the commission of a tort by another was jointly and severally liable with the primary tortfeasor.<sup>179</sup>

The most common pre-1952 contributory infringement cases dealt with the situation where a seller would sell a component which was not itself technically covered by the claims of a product or process patent but which had no other use except with the claimed product or process. In such cases, although a plaintiff was required to show intent to cause infringement, many courts held that such intent could be presumed because the component had no substantial non-infringing use.<sup>180</sup>

The legislative history of the Patent Act of 1952 indicates that no substantive change in the scope of what constituted “contributory infringement” was intended by the enactment of 35 U.S.C. § 271.<sup>181</sup> The single concept of “contributory infringement” was divided into active inducement - a type of direct infringement - and contributory infringement.

The Supreme Court made clear in the oft-cited *Aro Manufacturing v. Convertible Top Replacement Co.* cases that to be found liable for contributory infringement, a defendant needed to have knowledge of the patent.<sup>182</sup> In the *Aro* cases, the plaintiff had a patent relating to convertible tops. The defendant made and sold ready-made fabric replacements for the convertible tops sold by Ford Motor Company. The plaintiff informed the defendant by letter that it had rights to the patent, that Ford did not have a license to the patent, and that anyone supplying ready-made fabric replacement tops would be a contributory infringer. The Supreme Court held that “[w]ith respect to any sales that were made before [the date of the letter], however, *Aro* cannot be held liable in the absence of a showing that at that time it had already acquired the requisite knowledge that the Ford car tops were patented and infringing.” What the Supreme Court did not clarify, however, \*34 was whether the requisite knowledge included knowledge of its alleged infringement or just knowledge of the patent.

The Federal Circuit has not expressly answered this question but has focused on knowledge of the patent, rather than knowledge of alleged infringement, in cases involving contributory infringement.<sup>183</sup> In *Trell v. Marlee Electronics Corporation*, the court reversed an award of damages for sales made prior to the defendant’s knowledge of the patent.<sup>184</sup> Relying on *Aro II*, the court remanded and instructed the district court to determine whether and when the defendant knew of the existence of the patent.<sup>185</sup> Similarly, in *Hewlett-Packard*, the court observed that “§ 271(c) required not only knowledge that the component was especially made or adapted for a particular use but also knowledge of the patent which proscribed that use.”<sup>186</sup>

Unlike the provision for contributory infringement, § 271(b)--the statutory provision for active inducement--does not explicitly require knowledge of the patent. However, an evolving knowledge requirement has been read into the statute. In *Water Technology Corporation v. Calco, Ltd. and Hewlett-Packard*, the Federal Circuit clarified that “proof of actual intent to cause the acts which constitute the infringement is a necessary prerequisite to finding active inducement.”<sup>187</sup> The contemporaneous *Manville Sales Corporation v. Paramount Systems, Inc.* opinion has been construed to establish that knowledge of the patent is also required to support a finding of active inducement.<sup>188</sup>

In *Manville*, the plaintiff alleged that the officers of an infringing company were themselves liable for inducing infringement.<sup>189</sup> However, the officers were not aware of the patent prior to the initiation of the lawsuit, and after they were \*35 sued they had a good faith belief based on advice of counsel that the company’s product did not infringe.<sup>190</sup> The Federal Circuit reversed the district court’s imposition of liability under § 271(b) because there was no basis to conclude that the officers had specific intent to cause infringement.<sup>191</sup> The court explained that to prove active infringement:

It must be established that the defendant possessed specific intent to encourage another’s infringement and not merely that the defendant has knowledge of the acts alleged to constitute inducement. The plaintiff has the burden of showing that the alleged infringer’s actions induced infringing acts and that he knew or should have known his actions would induce actual infringements.<sup>192</sup> Although the *Manville* opinion did not spell out that knowledge of the patent is required to support a finding

of active inducement, the court did spell this out in *Insituform Techs., Inc. v. Cat Contracting, Inc.*<sup>193</sup> In *Insituform*, the court vacated a finding of active inducement because of insufficient evidence that the defendant knew of the patent. The court stated: “A crucial element of induced infringement is that the inducer must have actual or constructive knowledge of the patent.”<sup>194</sup>

## **B. Discussion**

The recent *Moba B.V. v. Diamond Automation, Inc.* opinion arguably introduced uncertainty into the status of the knowledge requirement.<sup>195</sup> In *Moba*, the court reversed a grant of judgment as a matter of law of no inducement and remanded to the district court to determine whether the defendant had actively induced infringing acts.<sup>196</sup> In reviewing the court’s precedent concerning inducement, the *Moba* panel focused on *Hewlett-Packard*, which was decided fairly early in the evolution of the knowledge requirement and was silent on whether knowledge of the patent is required to support a finding of inducement. Presumably it was not necessary for the *Hewlett-Packard* court to reach this issue because the threshold requirement of intending that the infringing acts occur was not satisfied. In any event, however, the *Moba* panel ignored subsequent cases fleshing out the knowledge requirement and relied on *Hewlett-Packard* in articulating its holding: “In this case, the only intent required of [the defendant] is the intent to cause the acts that constitute infringement.”<sup>197</sup>

**\*36** The *Moba* opinion does not say anything about whether the defendant needs to know about the patent or about whether *Insituform* is good law. But *Moba* does seem to conflict with prior precedent by holding that there is a lower standard of proof for active inducement.

In December 2003, in the *Ferguson Beauregard/Logic Controls, Division of Dover Resources, Inc. v. Mega Systems, LLC* case, the appellant argued that the test for liability for active inducement should be knowledge of the activities, not necessarily awareness that the activities amounted to infringement.<sup>198</sup> In support of this argument, the appellant cited a number of district court cases but apparently did not cite *Moba*. The Federal Circuit panel rejected the appellant’s argument, observing that the district court cases not only were not binding on the court but are contradicted by Federal Circuit precedent, in particular, by *Manville*.<sup>199</sup>

Plaintiffs asserting active inducement of a patent may want to cite *Moba* in support of arguments that no knowledge of the patent is required to find active inducement. However, defendants should argue that *Moba* is not good law because a three judge panel (such as the *Moba* panel) may not overrule prior Federal Circuit precedent,<sup>200</sup> and courts should follow *Manville*.

But what does it mean to follow *Manville*? *Manville* and subsequent cases do not explain what it means to know that an action will cause infringement. Nor do they clarify what establishes knowledge of the patent.

As we see it, there are several choices: (i) require only intent to cause the infringing acts; (ii) add knowledge of the patent; (iii) add an accusation of alleged infringement; and (iv) add knowledge of likely infringement.

With respect to adding knowledge of the patent, we recognize that other torts may require less knowledge and that *Moba* suggests it may not be required. However, requiring knowledge of the patent would create a symmetry with contributory infringement, and we believe there should be symmetry between these two forms of **\*37** indirect infringement. We would therefore require knowledge of the patent in order to find active inducement of a patent.

As far as adding an accusation of infringement or knowledge of likely infringement, we recognize that there might be some fairness in shifting the risk to the infringer only after the infringer knows or should know about possible infringement. However, we believe it would be incongruous to impose a higher level of proof for liability than for willfulness, which would also exceed the burden for many other torts. We would therefore not require an accusation of infringement or even knowledge of likely infringement.

## **VI. Should the Federal Circuit Clarify Prosecution Laches??**

In *Symbol Technologies, Inc. v. Lemelson Medical, Education & Research Foundation, L.P.*,<sup>201</sup> the Federal Circuit held that “the equitable doctrine of laches may be applied to bar enforcement of patent claims that issued after an unreasonable and

unexplained delay in prosecution even though the applicant complied with pertinent statutes and rules.<sup>202</sup> Subsequently, although Symbol Technologies has been widely heralded as reviving the once-abandoned prosecution laches defense,<sup>203</sup> the decision has been criticized for providing little guidance about the contours of the defense.<sup>204</sup> Patent infringement defendants have been asserting prosecution laches even in cases where any delay in prosecution was extremely short,<sup>205</sup> and district court decisions have developed the law regarding prosecution laches, frequently adopting conflicting answers to the questions that linger in Symbol Technologies' wake.

**\*38** Before deciding Symbol Technologies, the Federal Circuit invited discussion from the affected community and considered six amicus curiae submissions.<sup>206</sup> Those critical of the decision for causing the perceived change in the law would do well to remember that the Federal Circuit's nonprecedential decisions are incapable of overturning the Supreme Court precedent recognizing the defense. Supreme Court decisions do not come with statutes-of-limitation--they do not lose the force of law simply because they are old.

Those critical of Symbol Technologies for its dearth of guidance about the contours of the prosecution laches defense should bear in mind the procedural posture of the case. The district court had ruled that the defense of prosecution laches was unavailable as a matter of law.<sup>207</sup> It had not engaged in any factual finding but instead dismissed the prosecution laches counts for failure to state a claim.<sup>208</sup> The sole question before the Federal Circuit in Symbol Technologies was whether the defense could exist. Moreover, like other equitable defenses, prosecution laches is not likely to be amenable to hard and fast rules.<sup>209</sup>

Regardless of whether the Federal Circuit could, or should, have provided more guidance in Symbol Technologies or the subsequent decision in *In re Bogese II*, which affirmed a decision by the Board of Patent Appeals and Interferences that the applicant forfeited his right to patent certain claims due to prosecution laches,<sup>210</sup> it is certainly true that many important--and sometimes puzzling--questions remain about the prosecution laches defense. On remand in Symbol Technologies, the district court held a comprehensive trial that included prosecution laches. Trial ended in January 2003, and at the end of June 2003, the parties submitted joint post-trial briefing of nearly 800 pages. Chief Judge Pro recently issued a decision finding certain of the famed "Lemelson patents" unenforceable due to prosecution laches.<sup>211</sup>

**\*39** The likely appeal from Judge Pro's decision, or from another case in which the defense has been tried or disposed of on summary judgment, would allow the Federal Circuit to answer many of the pressing questions about the prosecution laches defense. In the mean time, district courts continue to evaluate the defense, reaching frequently divergent conclusions. The most pressing questions about prosecution laches include:

1. What are the elements of the defense? Is unreasonable and unexplained delay in prosecution sufficient, or must the defendant show intervening rights or some other form of prejudice?
2. What constitutes unreasonable delay? Although there are likely to be no hard-and-fast rules, are there guidelines or certain delay periods that are presumptively unreasonable?
3. What explanations will excuse a delay?
4. Is prosecution laches a defense personal to the defendant, or does it render the patent unenforceable against anyone?
5. What burden of proof applies?

District courts have reached different conclusions about the elements of prosecution laches. At least one has held that the sole element of prosecution laches is "whether plaintiff unreasonably delayed the prosecution of his patent(s) in a manner that cannot be reasonably explained."<sup>212</sup> Others have held that intervening rights is a necessary element of the defense.<sup>213</sup>

The Federal Circuit decision in *In re Bogese II* affirmed the Patent Office's authority to reject claims due to prosecution laches and affirmed the prosecution laches-based rejection in that case without requiring proof of intervening rights.<sup>214</sup> Proof of unreasonable delay alone was sufficient.<sup>215</sup> Because *In re Bogese II* involved a prosecution laches determination by the Patent Office, whose "authority to sanction undue delay is even broader than the authority of a district court to hold a patent unenforceable,"<sup>216</sup> proof of intervening rights may still be required to invalidate a patent in litigation.

**\*40** This is especially so considering that the district courts that have required proof of intervening rights have based the requirement on the Supreme Court precedent addressing prosecution laches. In *Verizon*, the court explained:



[F]rom *Crown Cork & Seal Co. v. Ferdinand Gutmann Co.*, 58 S. Ct. 842 (1938), it appears that proof of “intervening adverse public rights” is a requisite element of a successful prosecution laches defense. 58 S. Ct. at 486; see also *Symbol*, 277 F.3d at 1364. That is, in the absence of intervening adverse rights for more than two years prior to the presentation of patent claims in a continuation or divisional application, the claims were filed “in time” rendering prosecution laches inapplicable. See 58 S. Ct. at 846; *General Talking Pictures Corp. v. Western Elec. Co.*, 58 S. Ct. 849, 853 (1938). However, where the claims at issue were presented more than two years after the existence of an intervening right, the patentee must demonstrate sufficient excuse for the delay. See *Crown Cork*, 58 S. Ct. at 846.<sup>217</sup> In contrast, other courts have interpreted *Crown Cork* and *General Talking Pictures* merely to mean that “delay is less prejudicial for purposes of a laches defense in the absence of ‘intervening adverse rights.’”<sup>218</sup>

If intervening rights is required, yet another question is what is sufficient to establish intervening rights?<sup>219</sup> Would a patent suffice? Or must the intervening right in question have been in actual use? If actual use is required, must the use have been by the party asserting prosecution laches?

In addition to intervening rights, some courts have considered evidence of other types of prejudice. Borrowing from the traditional laches context, some litigants have contended that economic and evidentiary prejudice suffered as a result of the delay in prosecution is relevant to whether a patent is unenforceable due to prosecution laches. Although some courts have considered economic and evidentiary prejudice,<sup>220</sup> others have noted that there is no authority supporting their relevance.<sup>221</sup>

Thus, one of the most important questions is whether proof of intervening rights or other prejudice is a requirement for establishing prosecution laches.<sup>222</sup> If not, such proof may be relevant but not required or may simply be irrelevant. If so, **\*41** questions remain about what constitutes intervening rights or other relevant prejudice. In determining whether prosecution laches requires this additional element beyond unreasonable and unexplained delay, the Supreme Court precedent must, of course, be considered. Assuming it does not require proof of intervening rights, that a patentee has been found to have unreasonably delayed in prosecution, thereby extending the length of her exclusive rights and ability to stop the public from practicing the invention, would seem to constitute sufficient harm to justify rendering the patent unenforceable.

Another important question in the wake of *Symbol Technologies* and *Bogese II* is whether there are any guidelines for what amount of delay is unreasonable. District courts have found the pertinent Supreme Court precedents to give little guidance.<sup>223</sup> Some litigants have suggested that, as with traditional laches, any delay longer than six years should be presumptively unreasonable.<sup>224</sup> Even if no presumptions apply, the likely reasonability of various delay periods will tend to become established as more and more cases are litigated. For example, although most courts have declined to adopt a per se rule barring prosecution laches for patents issued after the 1995 incorporation of the General Agreement on Tariffs and Trade Uruguay Round Agreement Act (“GATT”) into United States law,<sup>225</sup> they have noted that the limitations on the life of patents effectuated by GATT will tend to counsel in favor of reasonability.<sup>226</sup>

A related issue about what constitutes unreasonable delay is whether the applicant must have subjectively intended to prolong prosecution or whether objectively unreasonable behavior is sufficient regardless of whether the applicant appreciated his or her behavior was unreasonable. In *Reiffin*, the district court for the Northern District of California held that the test is objective.<sup>227</sup>

Similar questions remain about what factors can excuse delay. Certainly some post-hoc excuses concocted by litigation counsel are likely to be insufficient (viz. “the dog ate my application”), but are any categorically irrelevant? Or, because the defense is equitable, is any factor potentially fair game?

**\*42** The fourth and fifth prosecution laches puzzlers identified by this paper are potentially related. Is the defense personal to the defendant, or does a finding of prosecution laches render a patent unenforceable across the board? Although the dissent in *Bogese II* characterized the defense recognized in *Symbol Technologies* as “an equitable defense personal to these defendants,”<sup>228</sup> the holding in *Bogese II* affirming a prosecution laches-based rejection by the Patent Office precluded enforcing the claims against anyone.<sup>229</sup> Although a determination of unreasonable delay by the Patent Office is arguably distinguishable from the litigation context, it may be a distinction without a difference as far as abuse of the period of exclusivity is concerned.

The final open question discussed in this paper is what should be the applicable burden of proof. Although litigants have contended that the defendant must establish prosecution laches by clear and convincing evidence, several district courts have

held that proof by a preponderance is enough.<sup>230</sup>

Some of the questions discussed above lend themselves more to determination on a case by case basis. However, we do believe that the burden of proof for prosecution laches, as for validity, should be a preponderance of the evidence. We also believe that a finding of unenforceability due to prosecution laches should render the patent unenforceable across the board rather than solely with respect to the parties.

### Conclusion

Thus, we have come full circle--a resolution of some questions will inevitably affect the best resolution of others. This is true of countless other issues in addition to the puzzlers we have discussed. Practitioners-- keeping in mind the practical goal of the patent law rather than any particular case--should continue to discuss these difficult issues. Congress and the courts should not be left to resolve them in the dark. Although resolving any of these questions will not be easy--and may, in fact, simply raise more difficult questions--the resolutions are more likely to be clear and consistent when those who will be affected participate in the discussion.

### Footnotes

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<sup>1</sup> See, e.g., *Constant v. Advanced Micro Devices, Inc.*, 848 F.2d 1560, 1566-67 (Fed. Cir. 1988) (noting that it is appropriate for district courts to appoint an experienced patent attorney as a special master pursuant to Fed. R. Civ. P. 53 "[w]here complicated issues of patent law are involved"); 127 Cong. Rec. H27,792 (daily ed. Nov. 17, 1981) (statement of Rep. Kastenmeier) (stating that patent law raises "some of the most complex and time-consuming issues the courts consider"). See also Mark D. Janis, *Patent Abolitionism*, 17 *Berkeley Tech. L.J.* 899, 900 (2002) (observing that "[p]atent law has a long and complex history" and that modern reform efforts would be well-served to learn from it).

<sup>2</sup> U.S. Const. art. I, §8, cl. 8.

<sup>3</sup> *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989) (stating that the Patent Clause of the Constitution requires such a balance and that "[f]rom their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy"); *Pope Mfg. Co. v. Gormully*, 144 U.S. 224, 234 (1892) (recognizing that "[i]t is as important to the public that competition should not be repressed by worthless patents, as that the patentee of a really valuable invention should be protected in his monopoly"). See also *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731 (2002) (stating that patent law must maintain a "delicate balance" between the rights of the patent holders and the public); Federal Trade Commission to Promote Innovation: The Proper Balance of Competition and Patent Law and Policy 36 (2003) [hereinafter *FTC Report*] (explaining that "the award of patents is often necessary to remedy free riding on others' innovations" but that "patent rights can in some circumstances hinder follow-on innovation and competition," and that, therefore, competition policy and patent policy must work in tandem to promote innovation).

<sup>4</sup> See *Jaskiewicz v. Mossinghoff*, 802 F.2d 532, 535 (D.C. Cir. 1986) ("The maze of laws and regulations relating to practice before the PTO obviously is designed to facilitate the work of the agency in resolving the inherently complex substantive questions arising over issues of patentability under the patent laws."). See also Janis, *supra* note 1, at 930 (quoting *Raillex Corp. v. Joseph Guss & Sons, Inc.*, 40 F.R.D. 119, 124-25 (D.D.C. 1966) for the proposition that, given the complexity of issues such as validity

and infringement, juries may “become hopelessly lost in an attempt to resolve the more complex issues of a patent case involving complicated mechanical inventions”).

5 It is not necessarily true that patent law’s goals can best be preserved by treating different evolving technology in the same manner. See Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 Va. L. Rev. 1575, 1581-82 (describing industry-specific aspects of innovation).

6 See Burk & Lemley, *supra* note 5, at 1599 & n.70 (quoting Lawrence Lessig, *Intellectual Property and Code*, 11 St. John’s J. Legal Comment 635, 638 (1996)) (“[W]hile we protect real property to protect the owner from harm, we protect intellectual property to provide the owner sufficient incentive to produce such property. ‘Sufficient incentive,’ however, is something less than ‘perfect control.’”). For discussion of the innumerable court decisions, statutory provisions, and commentators discussing this proposition, see Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property*, 75 Tex. L. Rev. 873, 888-90 (1997).

7 See *In re Innotron Diagnostics*, 800 F.2d 1077, 1084 (Fed. Cir. 1986) (stating that the congressionally envisioned role of the Federal Circuit is “to contribute to doctrinal stability in the field of patent law”); R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, at [http://www.law.upenn.edu/polk/fedcir/claimconstruction/wagner\\_fedcir\\_short.pdf](http://www.law.upenn.edu/polk/fedcir/claimconstruction/wagner_fedcir_short.pdf) (explaining that the Federal Circuit’s basic premise is “that, as compared to prior regional circuit involvement, centralization of legal authority will yield a clearer, more coherent, and more predictable legal infrastructure for the patent law”) (last visited Dec. 16, 2004).

8 See, e.g., *Aerojet-Gen. Corp. v. Mach. Tool Works, Oerlikon-Buehrle Ltd.*, 895 F.2d 736, 738-39 & n.3 (Fed. Cir. 1990) (requesting and considering amicus briefs regarding the extent of the court’s jurisdiction), overruled by *Holmes Group, Inc. v. Vornado Air Circulation Sys., Inc.*, 535 U.S. 826 (2002)). See also Willfulness discussion *infra* Part IV.2; Prosecution Laches discussion *infra* Part VII, noting that the Court received six amicus briefs before deciding *Symbol Technologies*.

9 See, e.g., FTC Report, *supra* note 3, at 4 (“The Court of Appeals for the Federal Circuit, the sole court for most patent law appeals, has brought stability and increased predictability to various elements of patent law.”); FTC Report, *supra* note 3, at 28 (“Many panelists at the Hearings agreed that the Federal Circuit has increased consistency in the application of many aspects of patent law.”); Donald W. Banner, *Witness at the Creation*, 14 Geo. Mason L. Rev. 557, 571 (1992) (concluding that although the Federal Circuit’s performance has been imperfect, it has clearly brought stability to patent law, strengthening the patent system in a manner that fosters industry).

10 383 F.3d 1337 (Fed. Cir. 2004).

11 Wagner & Petherbridge, *supra* note 7, at 1 (“As students of patent law have long recognized, the Federal Circuit’s mandate to develop patent doctrine in ways that promote clarity, coherence, and predictability is at its most powerful in the context of the court’s jurisprudence of claim construction--the interpretation of the textual description of a patent’s scope.”).

12 In *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (Markman I), the Federal Circuit held that claim construction is an issue of law for the judge, rather than the jury, to decide. The Supreme Court affirmed this holding in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 371-73 (1996) (Markman II). “By removing lay juries from complex technological decisions, these decisions promised to improve the predictability and uniformity of patent law.” *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1473 (Fed. Cir. 1998) (en banc) (Rader, J., dissenting). In *Cybor*, the en banc Federal Circuit made clear that in *Markman I*, it had held that “because claim construction is purely a matter of law, this court reviews the district court’s claim construction *de novo* on appeal.” 138 F.3d at 1454 (citing *Markman I*, 52 F.3d at 979, 981). Judge Rader dissented from this characterization of the holding of *Markman I*. *Id.* at 1473-74 (stating that subjecting claim construction “to independent appellate review without deference to or encumbrance by the trial process,” would “undermine, if not destroy, the values of certainty and predictability sought by *Markman I*”).

13 Wagner & Petherbridge, *supra* note 7, at 3-4 (“As a general matter, the post-*Markman II* data on claim construction is troubling, showing both a persistent (and significant) split in the jurisprudence and an increasing trend towards polarization, with correspondingly divergent results.”).

14 343 F.3d 1364 (Fed. Cir. 2003).

15 350 F.3d 1207 (Fed. Cir. 2003).

16 E-Pass, 343 F.3d at 1370-71.

17 Wagner & Petherbridge, *supra* note 7, at 2 (listing Judges Dyke, Clevenger and Linn as the proceduralists).

18 E-Pass, 343 F.3d at 1366.

19 *Id.* (quoting ‘311 patent, claim 1) (emphasis added).

20 *Id.* (quoting E-Pass Techs. v. 3Com Corp., 177 F. Supp. 2d 1033, 1043 (emphasis and punctuation added)).

21 *Id.* at 1367.

22 *Id.*

23 E-Pass, 343 F.3d at 1366 (emphasis added and footnote omitted).

24 *Id.* at 1367, n.1.

25 *Id.* at 1367.

26 *Id.* at 1368 (citing Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc., 334 F.3d 1294, 1300-01 (Fed. Cir. 2003)) (emphasis added).

27 *Id.* (citations omitted and emphasis added).

28 E-Pass, 343 F.3d at 1369 (citation and internal quotation marks omitted).

29 *Id.* at 1369 (citing ‘311 patent, col. 3, ll. 17-19, col. 1, ll. 18-19) (emphasis added).

30 *Id.*

31 *Id.*

32 *Id.* (citing ‘311 patent, col. 2, ll. 24-30) (emphasis added).

33 E-Pass, 343 F.3d at 1369.

34 Id. at 1370 n.4 (citing *Apple Computer, Inc. v. Articulate Sys., Inc.*, 234 F.3d 14, 25 (Fed. Cir. 2000)).

35 Id. at 1370 (stating that “the district court’s function is to interpret claims according to their plain language unless the patentee has chosen to be his own lexicographer in the specification or has clearly disclaimed coverage during prosecution,” and that “[a]n invention may possess a number of advantages or purposes, and there is no requirement that every claim directed to that invention be limited to encompass all of them”).

36 See *Kumar v. Ovonic Battery Co.*, 351 F.3d 1364, 1367-68 (Fed. Cir. 2003) (stating that “we look first to the dictionary definition of a contested term,” and that “the dictionary can be an important tool in claim construction by providing a starting point for determining the ordinary meaning of a term to a person of ordinary skill in the art,” but that the intrinsic record can resolve ambiguity or, “where clear, trump an inconsistent dictionary definition”); *Ferguson Beauregard/Logic Controls v. Mega Sys., LLC*, 350 F.3d 1327, 1338 (Fed. Cir. 2003) (stating that absent an express intent to impart novel meaning, claim terms “take on the full breadth of the ordinary and customary meanings attributed to them by those of ordinary skill in the art,” and that such meaning may be determined by reviewing the claims, dictionaries and treatises, written description, drawings, and prosecution history); *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (“Consulting the written description and prosecution history as a threshold step in the claim-construction process, before any effort is made to discern the ordinary and customary meanings attributed to the words themselves, invites a violation of our precedent counseling against importing limitations into the claims.”); *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1299-1300 (stating that consulting dictionary definitions is a first step in claim-construction analysis, and that the surrounding text of the claims, other claims, the written description, and prosecution history must be consulted to resolve ambiguity and to determine whether the patentee has acted as her own lexicographer); *Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc.*, 336 F.3d 1308, 1315 (Fed. Cir. 2003) (rejecting argument that the district court “put the cart before the horse” by consulting dictionary definitions instead of first looking to the specification to determine ordinary meaning of disputed claim term).

37 350 F.3d 1207, 1210 (Fed. Cir. 2003).

38 *Wagner & Petherbridge*, supra note 7, at 2 (listing Chief Judge Mayer and Judge Michel as swing judges, and Judge Bryson as holistic).

39 *Combined Sys.*, 350 F.3d at 1208.

40 Id.

41 Id.

42 Id. at 1208-09.

43 Id. at 1208-09 (quoting ‘562 patent, col. 4, ll. 10-44).

44 *Combined Sys.*, 350 F.3d at 1209 (quoting *Combined Sys., Inc. v. Def. Tech. Corp.*, 230 F. Supp. 2d 544, 548 (S.D.N.Y. 2002)).

45 Id. at 1210-11.

46 Id. at 1215.

47 Id. at 1210 (quoting *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002)).

48 Id.

49 Combined Sys., 350 F.3d at 1210-15.

50 Id.

51 Id. at 1210.

52 Id. at 1215.

53 Id.

54 Combined Sys., 350 F.3d at 1215-16.

55 Id. at 1215.

56 Id. at 1215-16.

57 Id. at 1215 n.6 (noting that “ordinary meaning” is shorthand for “the meaning to a person of ordinary skill in the art” omitted). Although Brookhill Wilk I is one of the first decisions that seemed to relegate the role of the specification as secondary compared to the role of dictionaries in evidencing ordinary meaning, the Federal Circuit’s discussion in Combined Systems, including its citation to Brookhill Wilk I, can be understood as an attempt to temper and recast decisions applying a dictionary-dominant methodology.

58 Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202-03 (Fed. Cir. 2002).

59 Id. at 1203.

60 Id. at 1204.

61 Id. at 1205.

62 Combined Sys., 350 F.3d at 1215.

63 158 F.3d 1243 (Fed. Cir. 1998).

64 Combined Sys., 350 F.3d at 1215 (quoting Renshaw PLC, 158 F.3d at 1250) (citation omitted).

65 One of the first digital computers, ENIAC, was built at the University of Pennsylvania and publicly unveiled in 1946. 12 Penn Printout (Mar. 1996), available at <http://www.upenn.edu/computing/printout/archive/v12/4/abacus.html> (last visited Nov. 3, 2004).

66 Random House American College Dictionary 249 (1963).

67 376 F.3d 1382 (Fed. Cir. 2004).

68 Phillips v. AWH Corp., 363 F.3d 1207, 1213-14 (Fed. Cir.), vacated by 376 F.3d 1382 (Fed. Cir. 2004).

69 Id.

70 Id. at 1217 (Dyk, J., dissenting in part).

71 Phillips, 376 F.3d at 1383.

72 Id. (Rader, J., concurring).

73 Id. (Mayer, C.J., dissenting).

74 Id.

75 Id.

76 Phillips, 376 F.3d at 1383.

77 35 U.S.C. §282 (2000).

78 Schumer v. Lab. Computer Sys., Inc., 308 F.3d 1304, 1315 (Fed. Cir. 2002) (citing Apotex USA, Inc. v. Merck & Co., 254 F.3d 1031, 1036 (Fed. Cir. 2001) (citing Am. Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1360 (Fed. Cir. 1984))). See also, e.g., Superior Fireplace Co. v. Majestic Prods. Co., 270 F.3d 1358, 1367 (Fed. Cir. 2001) (“Challenges to the validity of claims, whether regularly issued, issued after a reexamination pursuant to 35 U.S.C. §§301-307, or issued after a reissue pursuant to 35 U.S.C. §§251-252, must meet the clear-and-convincing standard of persuasion.”).

79 See Am. Hoist & Derrick Co., 725 F.2d at 1358. Prior to the 1965 and 1975 amendments to § 282, the first paragraph read simply: “A patent shall be presumed valid. The burden of establishing invalidity of a patent shall rest on the party asserting it.” Id. at 1359.

80 See id.

81 Id. (quoting the Reviser’s Note as stating that the first paragraph of §282 “declares the existing presumption of validity of patents,” and quoting the Commentary on the New Patent Act written by principal author of the Act, P.J. Federico, as explaining “[t]hat a patent is presumed valid was the law prior to the new statute, but it was not expressed in the old statute.” 35 U.S.C.A. § 1 (1954), reprinted in 75 J. Pat. & Trademark Off. Soc’y 162 (1993)).

82 Id. (citing Morgan v. Daniels, 153 U.S. 120, 125 (1894)).

83 See FTC Report, supra note 3, at 1 n.2 (explaining that the FTC “issues reports pursuant to Section 6(f) of the Federal Trade Commission Act, 15 U.S.C. §46(f)”).

- 84 FTC Report, supra note 3, at 1.
- 85 See FTC Report, supra note 3, at 8 (advising that the current standard of “clear and convincing evidence” necessary in challenging a patent’s validity is unjustified and should be replaced with a “preponderance of the evidence” standard).
- 86 FTC Report, supra note 3, at 8.
- 87 See FTC Report, supra note 3, at 10 & n.63 (citing *In re Warner*, 379 F.2d 1011, 1016 (C.C.P.A. 1967)).
- 88 See FTC Report, supra note 3, ch. 5, at 4.
- 89 FTC Report, supra note 3, ch. 5, at 5.
- 90 FTC Report, supra note 3, ch. 5, at 5.
- 91 See David Streitfeld, Note: This Headline is Patented, *L.A. Times*, Feb. 7, 2003, at A1.
- 92 See FTC Report, supra note 3 ch. 5, at 25 & n.179 (stating that data showed that 54% of final, published district court and appellate decisions from 1989 to 1996 found patents valid) (citing R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 *AIPLA Q. J.* 185, 205 (1998)).
- 93 See FTC Report, supra note 3 ch. 5, at 9 & n.28 (citing the *Manual of Patent Examining Procedure (MPEP)*, §2010 (8th ed. 2001) (stating that the PTO does not investigate duty-of-disclosure issues and does not reject patent applications on that basis).
- 94 See FTC Report, supra note 3 ch. 5, at 7 (quoting Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 *Nw. U. L. Rev.* 1495, 1497 (2001)); FTC Report, supra note 3 ch. 5, at 1 (quoting Lemley for the proposition that “it is much cheaper for society to make detailed validity determinations in those few cases [in which patents are challenged] than to invest additional resources examining patents that will never be heard from again”).
- 95 See FTC Report, supra note 3 ch. 5, at 26.
- 96 See FTC Report, supra note 3 ch. 5, at 3-4 (explaining that panelists included business representatives from small and large firms from a variety of primarily high-tech industries, independent inventors, leading patent and antitrust organizations and practitioners, and leading economics, antitrust, and patent law scholars).
- 97 See, e.g., Burk & Lemley, supra note 5, at 1658-59.
- 98 See *KP Permanent Make-up, Inc. v. Lasting Impression I, Inc.*, 328 F.3d 1061, 1069 (9th Cir. 2003) (“Federal registration of a trademark endows it with a strong presumption of validity,” which shifts the burden of production to the defendant to prove otherwise.), cert. granted by *KP Permanent Make-Up Inc., v. Lasting Impression I, Inc.* 124 S. Ct. 981 (2004) (internal quotation marks and citation omitted).
- 99 See, e.g., *Creative Gifts, Inc. v. UFO*, 235 F.3d 540, 545 (10th Cir. 2000) (stating that case law uniformly provides that the presumption of trademark validity under 15 U.S.C. §1057(b) requires the party seeking cancellation on the ground that a mark has



become generic to prove that fact by a preponderance of the evidence).

<sup>100</sup> See *Lamps Plus, Inc. v. Seattle Lighting Fixture Co.*, 345 F.3d 1140, 1145 (9th Cir. 2003) (explaining that the presumption of validity of a registered copyright may be rebutted).

<sup>101</sup> See *Medforms, Inc. v. Healthcare Mgmt. Solutions, Inc.*, 290 F.3d 98, 114 (2d Cir. 2002) (holding that jury instruction was not erroneous where that presumption of validity afforded to registered copyright could be rebutted by proof of a preponderance of the evidence that material information about authorship had been concealed from the Copyright Office).

<sup>102</sup> See *Burk & Lemley*, *supra* note 5, at 1659.

<sup>103</sup> See, e.g., *In re Watts*, 354 F.3d 1362, 1370 (Fed. Cir. 2004) (“[T]he appellant is correct that in general the Board’s decision must be affirmed, if at all, on the reasons stated therein,” unless the error was harmless and “clearly had no bearing on the procedure used or the substance of the decision reached.”) (citing *S.E.C. v. Chenery*, 332 U.S. 194, 196 (1947)).

<sup>104</sup> 793 F.2d 1565 (Fed. Cir. 1986).

<sup>105</sup> *Id.* at 1579.

<sup>106</sup> See, e.g., *Pfizer Inc. v. Novopharm Ltd.*, 57 U.S.P.Q. 2d (BNA) 1442, 1443 (N.D. Ill. 2000).

<sup>107</sup> *Id.* (citing *Underwater Devices v. Morrison-Knudsen Co., Inc.*, 717 F.2d 1380 (Fed. Cir. 1983)).

<sup>108</sup> *Kloster Speedsteel*, 793 F.2d at 1579 (quoting *Underwater Devices*, 717 F.2d at 1389-90).

<sup>109</sup> *Kloster Speedsteel*, 793 F.2d at 1579 (citations omitted).

<sup>110</sup> *Id.* at 1579-80 (emphasis added).

<sup>111</sup> 853 F.2d 1568 (Fed. Cir. 1988).

<sup>112</sup> *Id.* at 1572-73 (citing *Kloster*, 793 F.2d at 1579-80).

<sup>113</sup> See *SRI Int’l, Inc. v. Advanced Tech. Labs., Inc.*, 127 F.3d 1462, 1465 (Fed. Cir. 1997) (stating that the court must evaluate “whether the advice of noninfringement or invalidity or unenforceability could have reasonably been relied on, and whether, on the totality of the circumstances, exculpatory factors avert a finding of willful infringement” and noting that the totality of the circumstances may include commercial factors that may have affected the infringer’s actions, in addition to legal and factual questions); *Read v. Portec*, 970 F.2d 816, 827 (Fed. Cir. 1992) (stating that courts consider many factors in evaluating the totality of the circumstances), abrogated on other grounds by *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 975 (Fed. Cir. 1995) (en banc).

<sup>114</sup> See, e.g., *State Contracting & Eng’g v. Condotte Am., Inc.*, 346 F.3d 1057, 1063-66 (Fed. Cir. 2003) (affirming finding that infringement was not willful notwithstanding defendants’ failure to produce opinion of counsel, because defendants mistakenly but reasonably believed they were licensed, and therefore “[i]n the circumstances of this case, it was reasonable for the contractors not to seek the advice of counsel”); *Biotec v. Biocorp*, 249 F.3d 1341, 1356 (Fed. Cir. 2001) (finding no willfulness where defendant relied on the opinion of a technical advisor rather than an opinion of counsel); *Ajinomoto v. Archer-Daniels Midland Co.*, 228 F.3d

1338, 1352 (Fed. Cir. 2000) (finding no willfulness based on defendant's "substantial, albeit unsuccessful, challenge on the issues of validity and infringement").

115 Rolls Royce Ltd. v. GTE Valeron Corp., 800 F.2d 1101, 1109-10 (Fed. Cir. 1986).

116 Electro Med. Sys. v. Cooper Life Sci., Inc., 34 F.3d 1048, 1056-57 (Fed. Cir. 1994).

117 Quantum Corp. v. Tandon Corp., 940 F.2d 642, 644 (Fed. Cir. 1991) (noting that the accused infringer must "choose between waiving the privilege in order to protect itself from a willfulness finding, in which case it may risk prejudicing itself on the question of liability, and maintaining the privilege, in which case it may risk being found to be a willful infringer if liability is found").

118 344 F.3d 1336 (Fed. Cir. 2003).

119 383 F.3d 1337 (Fed. Cir. 2004).

120 Id. at 1341.

121 Id. at 1346.

122 Id. at 1341.

123 Knorr-Bremse Systeme Fuer Nutzfahrzeuge GMBH v. Dana Corp., 2001 U.S. Dist. LEXIS 25438 (D. Va. 2001) ("It is further ORDERED that, because this case is appropriately deemed 'exceptional' with respect to the Mark II air disk brake based, in part, on defendants' willful infringement of the '445 patent (see 35 U.S.C. §285), plaintiff is hereby AWARDED reasonable attorney's fees only for work performed in this case in connection with the Mark II air disk brake.") (footnote omitted).

124 Knorr-Bremse, 344 F.3d at 1336 (citing Kloster Speedsteel, 793 F.2d at 1580).

125 Id. at 1336-37. The Federal Circuit invited amicus curiae briefs from bar associations, trade or industry associations and government entities addressing questions one, two and four.

126 Id.

127 Id.

128 Amicus Curiae briefs were submitted by: the American Bar Association, the American Intellectual Property Law Association, the Association of the Bar of the City of New York, the Association of Corporate Counsel, the Association of Patent Law Firms, the Bar Association of the District of Columbia, Bea Systems, Inc. & Novell, Inc., the Biotechnology Industry Organization, the City of Chicago, the Computer Associates International, the Conejo Valley Bar Association, the Federal Circuit Bar Association, the Generic Pharmaceutical Association, the Houston Intellectual Property Law Association, the Intellectual Property Owners Association, the Lexington Patent Policy Group, Microsoft, the New York Intellectual Property Law Association, Public Knowledge, the Public Patent Foundation, the San Diego Intellectual Property Law Association, the Securities Industry Association, the Semiconductor Industry Association, and the United States Council for International Business, Center for Advanced Study and Research on Intellectual Property, Fédération Internationale des Conseils en Propriété Industrielle, et. al. Knorr-Bremse, 383 F.3d 1337, 1341, n.2.

129 See also FTC Report, *supra* note 3, at 16 (recommending that Congress enact legislation requiring actual written notice of infringement from the patentee, or deliberate copying of the invention, knowing it to be patented, as predicates to willful infringement).

130 Knorr-Bremse, 383 F.3d at 1343.

131 *Id.* at 1345.

132 *Id.* at 1345-46.

133 See, e.g., Amici Curiae Brief of United States Council For International Business, et al. at 3, n. 2 (“We have not found the adverse inference rule accepted in any body of patent law around the world.”); Corrected Brief of The American Bar Association As Amicus Curiae at 6-7 (contending that there is no reason why adverse inferences should be prohibited elsewhere, but allowed in patent infringement cases); Brief for the Association of Patent Law Firms as Amicus Curiae at 6; Brief of Amicus Curiae, The Federal Circuit Bar Association, at 5 (stating that efforts to collaterally attack opinion letters “generates expensive and unpredictable satellite litigation in virtually every patent case,” and quoting *Rhodia Chimie v. PPG Indus., Inc.*, 218 F.R.D. 416, 417-418 (D. Del. 2003) for the proposition that the district court expressed “hope[] that the occurrence of this expensive feature in patent litigation will be reduced after the ... Federal Circuit takes an en banc look at its ‘precedent ...’”); Brief of Amicus Curiae [Computer Associates International] at 4-5 (noting that published estimates range from \$20,000 to over \$100,000 per patent, and that because infringement notices frequently include multiple patents, “formal opinion letters could easily reach into the hundreds of thousands or even into the \$1 million range”) (citing Matthew D. Powers & Steven C. Carlson, *The Evolution & Impact of The Doctrine of Willful Infringement*, 51 *Syracuse L. Rev.* 53, 102 (2001)); Brief of Amicus Curiae Public Patent Foundation 6-7 (arguing that the costs disproportionately burden small businesses, citing *Ira V. Heffan, Willful Patent Infringement*, 7 *Fed. Cir. Bar J.* 115, 150 (1997)).

134 See Amici Curiae Brief of United States Council for International Business, et al. at 3 (explaining that “if the infringer has used the same attorney or attorneys from the same law firm for both an opinion letter and the litigation, relying on the opinion letter as a defense to willful infringement may result in the disqualification of that attorney or firm for the purposes of the ongoing litigation”); Brief for the Association of Patent Law Firms as Amicus Curiae at 7 (noting that the adverse inference fuels efforts to disqualify lawyers and firms on the grounds that they are necessary witnesses, thereby resulting in a double penalty: “further unnecessary litigation expenses and the loss of the counsel most knowledgeable concerning the patent at issue”).

135 See, e.g., Brief of Amicus Curiae Biotechnology Industry Organization at 6 (“Given the long development times for products in most fields of biotechnology, the hindsight [with which the competence of exculpatory opinions is evaluated] is often ancient history compared to the current state of the patent law and the state of the science when a court assesses its competence.”).

136 Brief of Amicus Curiae [Computer Associates International] at 6-7.

137 *Id.*; Brief For Amicus Curiae, Houston Intellectual Property Law Association at 5.

138 Brief of Amicus Curiae [Computer Associates International] at 6; Houston Intellectual Property Law Association at 5.

139 Brief of Amicus Curiae Generic Pharmaceutical Association at 4-5.

140 Brief For Amicus Curiae, Houston Intellectual Property Law Association at 5.

141 *Id.*

- 142 Brief of Amicus Curiae Generic Pharmaceutical Association In Support Of Defendants-Appellants at 3; Amici Curiae Brief of United States Council For International Business, et al. at 4-5.
- 143 Amicus Curiae Brief of Securities Industry Association at 5, 9 (citing Deborah Staville Bartel, Drawing Negative Inferences Upon a Claim of the Attorney-Client Privilege, 60 Brook. L. Rev. 1355, 1400 (1995), for the proposition that “because the attorney-client privilege operates to shield more than unfavorable information, drawing an adverse inference from invocation of the privilege is not logically justified”).
- 144 Amici Curiae Brief of United States Council For International Business, et al. at 5.
- 145 See, e.g., Brief of the Semiconductor Industry Association as Amicus Curiae at 3 (contending that the vital public purpose of encouraging full and frank communication between attorneys and their clients can be served only when legal advice can be obtained without the apprehension or consequences of disclosure) (quoting *Upjohn Co. v. United States*, 449 U.S. 383, 389 (1981)).
- 146 *Knorr-Bremse*, 383 F.3d 1337, 1346-47 (Fed. Cir. 2004).
- 147 Judge Dyk dissented on the grounds that the law regarding willfulness should not include the affirmative duty of due care reaffirmed by the *Knorr-Bremse* majority, on the grounds that the duty “finds no support in the patent damages statute, the legislative history, or Supreme Court opinions,” and may be inconsistent with recent Supreme Court cases holding that punitive damages can only be awarded in situations in which conduct is reprehensible. 383 F.3d at 1348-49 (Dyk, C.J., concurring in part and dissenting in part).
- 148 Similarly, if juries are permitted to know that a defendant has obtained an opinion of counsel but has chosen not to waive the attorney-client privilege and disclose the contents of that opinion, the fact that the jury will no longer receive an adverse inference instruction may not matter if the plaintiff is still able to argue to the jury that, based on their own common sense, they know the only reason a defendant would really choose not to disclose the opinion is if it is unfavorable.
- 149 In this regard, Judge Dyk noted in his dissent: “While the duty of care is only one factor in the determination of enhanced damages, no one can seriously doubt that, both in the minds of the jurors (in determining willfulness) and in the decision of the district court (concerning enhancement), the duty of care is by far the preeminent factor in the vast majority of cases.” 383 F.3d at 1349 (Dyk, J., concurring in part and dissenting in part).
- 150 Brief of Amicus Curiae [Computer Associates International] at 10 (citing Edwin H. Taylor and Glenn E. Von Tersch, A Proposal to Shore up the Foundations of Patent Law that the Underwater Line Eroded, 20 *Hastings Comm. & Ent. L.J.* 721, 737 (1998)); Brief for Amicus Curiae American Intellectual Property Law Association at 3 (contending that the effect of the adverse inference “has been to discourage potential infringers from conducting patent searches and seeking candid advice from their attorneys, and to inhibit attorneys when advising clients and providing noninfringement guidance”).
- 151 See, e.g., Brief Amicus Curiae of the City of Chicago at 12 (“Depending on the circumstances, such a defense may, in and of itself, be sufficient to defeat an accusation of willful infringement.”).
- 152 *Knorr-Bremse*, 383 F.3d at 1347.
- 153 Opening Brief of Defendants-Appellants at 30 (quoting *State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985)).
- 154 See also Brief of Amicus Curiae Biotechnology Industry Organization at 10 (arguing that allowing a substantial defense to defeat willfulness will provide “an appropriate incentive to challenge patents believed in good faith to be invalid and facilitate licensing on more reasonable terms”).

155 Likewise, when the defendant lacks notice of the patent until initiation of the litigation, a good faith belief in a substantial defense should certainly negate willfulness. See generally Corrected Brief For Amicus Curiae Microsoft Corporation.

156 Brief for Amicus Curiae American Intellectual Property Law Association at 10-11.

157 *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078 (Fed. Cir. 1983).

158 *Id.*

159 *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641 (1915); *United States Frumentum Co. v. Lauhoff*, 216 F. 610 (6th Cir. 1914).

160 See, e.g., *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1121 (S.D.N.Y. 1970).

161 *Horvath v. McCord Radiator & Mfg. Co.*, 100 F.2d 326, 335 (6th Cir. 1938). Another phrasing of the rule reads, “The primary inquiry, often complicated by secondary ones, is what the parties would have agreed upon, if both were reasonably trying to reach an agreement.” *Faulkner v. Gibbs*, 199 F.2d 635, 639 (9th Cir. 1952).

162 318 F. Supp. at 1120. The Georgia-Pacific factors include: (1) the royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty; (2) the rates paid by the licensee for the use of other patents comparable to the patent in suit; (3) the nature and scope of the license, as exclusive or non-exclusive, or as restricted on non-restricted in terms of territory with respect to whom the manufactured product may be sold; (4) the licensor’s established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly; (5) the commercial relationship between the licensor and licensee, such as, whether there are competitors in the same territory in the same line of business; or whether they are inventor and promoter; (6) the effect of selling the patented specialty in promoting sales of other products of the licensee; that existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales; (7) the duration of the patent and the term of the license; (8) the established profitability of the product made under the patent; its commercial success; and its current popularity; (9) the utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results; (10) the nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention; (11) the extent to which the infringer has made use of the invention; and any evidence probative of the value of that use; (12) the portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions; (13) the portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer; (14) the opinion testimony of qualified experts; and (15) the amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee--who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention--would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

163 See, e.g., *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1393 (Fed. Cir. 2003) (concluding that a damages expert’s application of the Georgia-Pacific methodology was proper), appeal after remand *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387 (Fed. Cir. 2003).

164 See, e.g., *Wang Lab., Inc. v. Toshiba Corp.*, 993 F.2d 858, 870 (Fed. Cir. 1993), *aff’d* by *Wang Lab., Inc. v. Toshiba Corp.*, 103 F.3d 1571 (Fed. Cir. 1997).

165 575 F.2d 1152 (6th Cir. 1978).

166 See, e.g., *Hanson*, 718 F.2d at 1079 (quoting from *Panduit*: “The key element in setting a reasonable royalty ... is the necessity for return to the date when the infringement began.”).

167 *Panduit*, 575 F.2d at 1158.

168 *Id.* (citations omitted).

169 *Id.* at 1158-59.

170 *Panduit*, 575 F.2d at 1159.

171 *Hanson*, 718 F.2d at 1079.

172 See, e.g., *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1311 (Fed. Cir. 2002).

173 “Whoever ... sells ... a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.” 35 U.S.C. § 271(c) (2004).

174 See *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488-91 (1964) (*Aro II*) (directing the district court to make a finding of fact as to when the alleged infringer knew about the patent and vacate liability as to any sales made before that date); *Trell v. Marlee Elec. Corp.*, 912 F.2d 1443, 1447-48 (Fed. Cir. 1990) (reversing an award of damages for sales made prior to the defendant’s knowledge of the patent).

175 “Whoever actively induces infringement of a patent shall be liable as an infringer.” 35 U.S.C. § 271(b) (2004).

176 “In this case, the only intent required of [the defendant] is the intent to cause the acts that constitute infringement.” *Moba B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1318 (Fed. Cir. 2003).

177 *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990).

178 See *Henry v. A.B. Dick Co.*, 224 U.S. 1, 33-34 (1912); *Thomson-Houston Elec. Co. v. Ohio Brass Co.*, 80 F. 712, 721 (6th Cir. 1897).

179 See cases cited *supra* note 178.

180 *Hewlett-Packard*, 909 F.2d at 1469 (citing *Henry*, 224 U.S. at 48).

181 See S. Rep. No. 82-1979, at 28 (1952), reprinted in 1952 U.S.C.C.A.N. 2394.

182 *Aro II*, 377 U.S. at 488-91.

183 Many district courts have followed Aro II and Trell. See *Pickholtz v. Rainbow Techs., Inc.*, 260 F. Supp. 2d 980, 988 (N.D. Cal. 2003) (following Aro II); *Cybiotronics, Ltd. v. Golden Source Elec., Ltd.*, 130 F. Supp. 2d 1152, 1164 (C.D. Cal. 2001) (granting summary judgment of no liability for contributory infringement prior to knowledge of the patent); *Dynamis, Inc. v. Leepoxy Plastics, Inc.*, 831 F. Supp. 651, 654-55 (N.D. Ind. 1993) (“[The] focus in a contributory infringement claim is on whether the accused infringer knows that the intended use of the product will infringe a known patent.”). Cf. *Johns Hopkins Univ. v. CellPro*, 894 F. Supp. 819, 836 (D. Del. 1995) (instructing the jury only that “the patent holder must establish that a device was sold and used in carrying out a process described in a claim of the patent and that the seller knew the product was especially made for that purpose and not a staple article suitable for a substantial noninfringing use”).

184 *Trell v. Marlee Elec. Corp.*, 912 F.2d 1443, 1447 (Fed. Cir. 1990).

185 *Id.* at 1448.

186 *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 n.4 (Fed. Cir. 1990).

187 *Water Tech. Corp. v. Calco, Ltd.*, 850 F.2d 660, 668 (Fed. Cir. 1988); *Hewlett-Packard*, 909 F.2d at 1469.

188 *Manville Sales Corp. v. Paramount Sys. Inc.*, 917 F.2d 544, 553-54 (Fed. Cir. 1990).

189 *Id.* at 549.

190 *Id.* at 553.

191 *Id.* at 554.

192 *Id.* at 553.

193 *Insituform Techs., Inc. v. Cat Contracting, Inc.*, 161 F.3d 688 (Fed. Cir. 1998).

194 *Id.* at 695.

195 *Moba*, 325 F.3d at 1306.

196 *Id.* at 1318.

197 *Id.*

198 *Ferguson Beauregard/Logic Controls, Div. of Dover Res., Inc. v. Mega Sys., LLC*, 350 F.3d 1327, 1342 (Fed. Cir. 2003).

199 *Id.* (“[Appellant]’s position is untenable based on *Manville Sales*, which makes clear that ‘it must be established that the defendant possessed specific intent to encourage another’s infringement and not merely that the defendant had knowledge of the acts alleged to constitute infringement.’”).

200 See, e.g., *Mother's Restaurant, Inc. v. Mama's Pizza, Inc.*, 723 F.2d 1566, 1573 (Fed. Cir. 1983) ('The court may overrule a prior holding having precedential status only by an in banc [sic] decision.'). To the extent *Crystal Semiconductor* conflicts with earlier precedent, a subsequent panel is obligated to follow the earlier case law which is binding precedent. See *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1579 (Fed. Cir. 1989) ('Where conflicting statements ... appear in our precedent, the panel is obligated to review the cases and reconcile or explain the statements, if possible. If not reconcilable and if not merely conflicting dicta, the panel is obligated to follow the earlier case law which is the binding precedent.');

201 *Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 765 (Fed. Cir. 1988) ('[P]rior decisions of a panel of the court are binding precedent on subsequent panels unless and until overturned en banc .... Where there is direct conflict, the precedential decision is the first.').

202 277 F.3d 1361 (Fed. Cir. 2002).

203 *Id.* at 1363-68. See also *In re Bogese II*, 303 F.3d 1362, 1367 (Fed. Cir. 2002).

204 See, e.g., Jennifer C. Kuhn, *Symbol Technologies: The (Re)birth of Prosecution Laches*, 12 Fed. Cir. B. J. 611, 611 (2002-2003) (stating that *Symbol Technologies* "appears to revive an abandoned equitable defense to patent infringement that has not been applied since depression-era Supreme Court decisions"); *Oxaal v. Internet Pictures Corp.*, No. 00-CV-1863, 2002 WL 485704, at \*2 (N.D.N.Y. Mar. 27, 2002) (allowing leave to amend answer to assert prosecution laches defense, and finding that *Symbol Technologies* "marked a significant change in the law," because it overruled the district court and two prior nonprecedential decisions, which had held that prosecution laches was unavailable as a matter of law).

205 See, e.g., Kuhn, *supra* note 203, at 611 ("[T]he Federal Circuit's decision provides little guidance for the scope of the prosecution laches defense."); *Reiffin v. Microsoft Corp.*, 281 F. Supp. 2d 1149, 1151 (N.D. Cal. 2003) ("[T]he Federal Circuit has, as yet, provided no guidance concerning the elements of the defense (or counter-claim) or the burden of proof a defendant must meet to prove prosecution laches."); *Stambler v. RSA Security*, 243 F. Supp. 2d 70, 76 (D. Del. 2003) ("Unfortunately, neither Congress nor the Federal Circuit has provided any further guidance on the legal standards applicable to the prosecution laches defense."); *Intuitive Surgical, Inc. v. Computer Motion, Inc.*, No. Civ. A. 01-203, 2002 WL 31833867, at \*3 (D. Del. Dec. 10, 2002) (same).

206 See, e.g., *John Mezzalingua Assocs., Inc. v. Corning Gilbert, Inc.*, No. 03-C-354-S, slip op. (W.D. Wis. Nov. 20, 2003) (granting plaintiff's motion for partial summary judgment that the patent-in-suit was not unenforceable due to prosecution laches where total prosecution time was slightly more than three years).

207 See *Oxaal*, No. 00-CV-1863, 2002 WL 485704, at \*2 (noting that the court received six amicus curiae briefs).

208 *Symbol*, 277 F.3d at 1363.

209 *Id.* (citing *Symbol Techs., Inc. v. Lemelson Med. Educ. & Research Found., Ltd. P'ship*, 2000 U.S. Dist. LEXIS 21863, 99 CV 0397 (D. Nev. Mar. 21, 2000)).

210 C.f. *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1041 (Fed. Cir. 1992) (en banc) ("Like laches, equitable estoppel is not limited to a particular factual situation nor subject to resolution by simple or hard and fast rules.").

211 *Bogese II*, 303 F.3d at 1363.

212 *Symbol Techs., Inc. v. Lemelson Med.*, 301 F. Supp. 2d 1147 (D. Nev. 2004). Judge Pro noted that of the more than five million patents that issued in the United States between 1914 and 2001, three hundred twenty-five had a prosecution pendency of longer than eleven years, and *Lemelson* holds the top thirteen of those three hundred twenty-five patents. Judge Pro concluded, "If the defense of prosecution laches does not apply under the totality of the circumstances presented here, the Court can envision few circumstances under which it would." *Id.* at 1156.

213 *Reiffin v. Microsoft Corp.*, 281 F. Supp. 2d 1149, 1151 (N.D. Cal. 2003).



213 Verizon Cal. Inc. v. Katz Tech. Licensing, L.P., No. 01-CV-09871, 2003 U.S. Dist. LEXIS 23553, at \*63 (C.D. Cal. Dec. 2, 2003);  
Intuitive Surgical, Inc. v. Computer Motion, No. CIV. A. 01-203, 2002 WL 31833867, at \*3 n.2 (D. Del. Dec. 10, 2002).

214 303 F.3d at 1369 (holding that “the PTO has authority to order forfeiture of rights for unreasonable delay”).

215 Id.

216 Id. at 1367.

217 Verizon, 2003 U.S. Dist. LEXIS 23553 at \*62-63.

218 Digital Control, Inc. v. McLaughlin Mfg. Co., 225 F. Supp. 2d 1224, 1227 (W.D. Wash. 2002).

219 Id. at 1227 (“Courts have had a difficult time discerning, and have disagreed on, what ‘intervening adverse rights’ meant in 1938  
and how to apply the holding today.”).

220 In re Certain Data Storage Sys., No. 337-TA-471, 2003 WL 145598 (U.S.I.T.C. Jan. 14, 2003) (holding that genuine issue of  
material fact prevented summary judgment of unenforceability due to prosecution laches, in part because it was unclear whether  
evidentiary prejudice was attributable to the delay).

221 Verizon, 2003 U.S. Dist. LEXIS 23553, at \*68.

222 The FTC has recommended the enactment of legislation that would specifically create intervening rights to protect prior users from  
patent infringement allegations for claims first introduced in continuing applications. See FTC Report, *supra* note 3, at 16.

223 See, e.g., Digital Control, Inc. v. McLaughlin Mfg. Co., 225 F. Supp. 2d 1224, 1226 (W.D. Wash. 2003) (“The Supreme Court  
cases of the 1920’s and 1930’s provide little guidance in how to determine in the instance case if there has been an unreasonable  
and unexplained delay.”).

224 See, e.g., Chiron Corp. v. Genentech, Inc., 268 F. Supp. 2d 1139, 1144 (C.D. Cal. 2002).

225 Whereas continuation patents filed before the June 8, 1995 effective date of GATT could remain in force years after the expiration  
of their original ancestors (and many do), GATT amended the law to provide that continuation patents filed after the effective date  
terminate on the same date as their parent patent. See 35 U.S.C. §154(a) (2000).

226 Digital Control, 225 F. Supp. 2d at 1228; Cummins-Allison Corp. v. Glory, Ltd., No. 02 C-7008, 2003 WL 355470, at \*41 (N.D.  
Ill. Feb. 12, 2003) (“[W]e reject the argument that the doctrine of prosecution laches, as a matter of law, cannot apply to  
post-GATT patents.”).

227 Reiffin v. Microsoft Corp., 281 F. Supp. 2d 1149, 1151 (N.D. Cal. 2003) (citing Utah Radio Products Co. v. Brunette, 78 F.2d 793,  
799 (1st Cir. 1935)).

228 303 F.3d at 1371 (Newman, J., dissenting).

229 Id. at 1367.

230 Verizon Cal., No. 01-CV-09871, 2003 U.S. Dist. LEXIS 23553, at \*62 (holding that the burden of proof applicable to prosecution laches is preponderant evidence); Reiffin, 281 F. Supp. 2d at 1151 (same); Intuitive Surgical, Inc. v. Computer Motion, Inc., No. CIV A. 01-203, 2002 WL 31833867, at \*5 n.4 (D. Del. Dec. 10, 2002) (same).