2008 PATENT LAW DECISIONS OF THE FEDERAL CIRCUIT

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I. INTRODUCTION

A. Introductory Remarks

The United States Supreme Court took a slight breather from patent-law issues in 2008. After issuing three patent-law decisions in 2007 (including KSR International Co. v. Teleflex Inc.),1 the Court

issued just one patent-law decision in 2008—Quanta Computer, Inc. v. LG Electronics, Inc.\(^2\).

Despite the Supreme Court’s slower pace, however, the Court’s influence loomed large in the United States Court of Appeals for the Federal Circuit in 2008. In a number of cases, the Federal Circuit continued to work through the implications of the Supreme Court’s recent precedents, most notably KSR and the Supreme Court’s 2006 decision in eBay Inc. v. MercExchange L.L.C.\(^3\) The Federal Circuit’s continued efforts to apply these cases in different technological and competitive settings may be setting the stage for further elaboration from the Supreme Court on the standard for obviousness and the availability of injunctive relief in patent infringement cases.

The Federal Circuit also, in two en banc decisions, preemptively reevaluated some of its own precedents, considering how they measured up against older (but still binding) Supreme Court case law.\(^4\) In In re Bilski,\(^5\) the Federal Circuit considered its 35 U.S.C. § 101 patentable-subject-matter jurisprudence against previous Supreme Court decisions such as Diamond v. Diehr\(^6\) and Gottschalk v. Benson.\(^7\) And in Egyptian Goddess, Inc. v. Swisa, Inc.,\(^8\) the Federal Circuit went back even further in the annals of Supreme Court jurisprudence and revised its own design patent case law in light of the Supreme Court’s 1871 decision in Gorham Co. v. White.\(^9\)

1. KSR International Co. v. Teleflex Inc.

In 2008, the Federal Circuit continued to assess and apply the Supreme Court’s 2007 decision in KSR International Co. v. Teleflex Inc., which rejected the Federal Circuit’s rigid application of the “teaching, suggestion, or motivation” (“TSM”) test in favor of a more flexible approach for determining whether a patent claim is obvious.\(^10\) Using the TSM test, a patent claim was proved obvious if

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2. 128 S. Ct. 2109, 86 U.S.P.Q.2d (BNA) 1673 (2008); see infra Section 1.B (discussing the Court’s decision in Quanta).
5. 545 F.3d at 943, 88 U.S.P.Q.2d (BNA) at 1385.
8. 543 F.3d at 665, 88 U.S.P.Q.2d (BNA) at 1658.
9. 81 U.S. 511 (1871); see Egyptian Goddess, 543 F.3d at 672, 88 U.S.P.Q.2d (BNA) at 1664 (analyzing the Court’s decision in Gorham). For a more detailed discussion of Egyptian Goddess, see infra Section 1.A.4.
"some motivation or suggestion to combine the prior art teachings can be found in the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the art." In rejecting the Federal Circuit's strict application of the TSM test, the Supreme Court noted that its decision in Graham v. John Deere Co. provided for a more expansive and flexible approach to the obviousness question.

Although the Supreme Court did not set forth a particular test in KSR, it did offer some guiding principles, such as caution in granting patents "based on the combination of elements found in the prior art" from known methods where the combination yields no more than predictable results. The Federal Circuit in 2008 applied this principle in Agrizap, Inc. v. Woodstream Corp., finding a "textbook case" of obviousness because the asserted claims involved a combination of prior art teachings to yield predictable results. The court applied the same principle to reach a similar conclusion in Sundance, Inc. v. DeMonte Fabricating Ltd.

In addition, several of the Federal Circuit's cases in 2008 dealt with the ramifications of underlying district court findings that applied the TSM test or KSR in the immediate wake of the Supreme Court's decision. In these cases, the court offered additional applications of the directives of KSR, such as, "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." The court also, for example, clarified the post-KSR standard for determining obviousness in the context of particular fields of patents, such as those regarding chemical compounds.

11. Id. at 407, 82 U.S.P.Q.2d (BNA) at 1391 (citation omitted).
15. 520 F.3d 1337, 86 U.S.P.Q.2d (BNA) 1110 (Fed. Cir. 2008).
16. Id. at 1344, 86 U.S.P.Q.2d (BNA) at 1115.
17. 550 F.3d 1396 (Fed. Cir. 2008) (finding the combination of prior art made the patent obvious).
19. See Eisai Co. v. Dr. Reddy's Labs., Ltd., 533 F.3d 1353, 1358, 87 U.S.P.Q.2d (BNA) 1452, 1456 (Fed. Cir. 2008) ("[T]his court consults the counsel of KSR that 'any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.'" (quoting KSR Int'l Co., 550 U.S. at 420, 82 U.S.P.Q.2d (BNA) at 1397)).
2. eBay Inc. v. MercExchange, L.L.C.

The Federal Circuit also continued in 2008 to delineate the requirements for obtaining injunctive relief upon a finding of infringement in light of the Supreme Court’s decision in eBay Inc. v. MercExchange, L.L.C., but left unanswered several questions raised by the 2006 decision. The court expressly left open the question of whether there remained any presumption of irreparable injury upon a finding of patent infringement. Reviewing the facts of each case presented in detail, the Federal Circuit did not reverse in any of the multiple appeals from the denial of a permanent injunction based on the district court’s analysis of the eBay factors, and even confirmed that it is within a district court’s discretion in appropriate cases to dissolve an injunction granted pre-eBay on the basis that the injunction is no longer equitable in light of that decision.

The Federal Circuit did reverse the grant of one permanent injunction, however, where the damages awarded to the plaintiff already included payment of a “market entry fee” that was equivalent to an ongoing royalty payment. The court also clarified that the eBay decision does not preclude the award of an injunction where the plaintiff does not practice the asserted patents, but that the remaining facts of each particular case must be taken into account.


The Federal Circuit in 2008 revisited two Supreme Court cases from over a quarter century ago in its en banc decision in In re Bilski, clarifying the test for determining what constitutes a patentable process under § 101 and rejecting the court’s own tests set forth in

22. Under the factors set forth in eBay, a plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.
23. eBay, 547 U.S. at 391, 78 U.S.P.Q.2d (BNA) at 1578.
State Street Bank & Trust Co. v. Signature Financial Group, Inc.\(^\text{27}\) and In re Alappat.\(^\text{28}\) In In re Bilski, the court harkened back to the Supreme Court’s decisions in Diamond v. Diehr and Gottschalk v. Benson, which “enunciated a definitive test to determine whether a process claim is tailored narrowly enough to encompass only a particular application of a fundamental principle rather than to pre-empt the principle itself.”\(^\text{29}\) Applying that test, known as the “machine-or-transformation” test, a process is patent-eligible under § 101 if it is tied to a particular machine or apparatus, or it transforms an article into a different state or thing.\(^\text{30}\)

The Federal Circuit’s decision left many questions open to future cases. The court, for example, did not set limits of how machine implementation of a process may affect patent-eligibility and did not specify “whether or when recitation of a computer suffices to tie a process claim to a particular machine.”\(^\text{31}\) The implications of the Federal Circuit’s decision on patent applicants and patent holders will emerge in the courts—including perhaps the Supreme Court—in 2009 and beyond.

4. Gorham Co. v. White

In Egyptian Goddess, Inc. v. Swisa, Inc., the Federal Circuit changed the standard for determining when a design patent is infringed.\(^\text{32}\) In a unanimous en banc decision, the Federal Circuit aided design patent plaintiffs by abandoning the Federal Circuit’s requirement that plaintiffs show the “point of novelty” prong; instead, the Federal Circuit held that design patent plaintiffs need to meet only the “ordinary observer” test,\(^\text{33}\) first established by the Supreme Court in 1871 in Gorham Co. v. White.\(^\text{34}\)

A design patent covers the ornamental, rather than the useful, aspects of a product. The “ordinary observer” test from Gorham defines infringement of design patents in terms of whether “in the eye of an ordinary observer . . . two designs are substantially the same,” thereby deceiving the observer and “inducing him to purchase

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\(^{27}\) 149 F.3d 1368, 47 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1998).

\(^{28}\) 33 F.3d 1526, 31 U.S.P.Q.2d (BNA) 1545 (Fed. Cir. 1994).

\(^{29}\) In re Bilski, 545 F.3d at 954, 88 U.S.P.Q.2d (BNA) at 1385.

\(^{30}\) Id. at 955, 88 U.S.P.Q.2d (BNA) at 1391.

\(^{31}\) Id. at 962, 88 U.S.P.Q.2d (BNA) at 1396.

\(^{32}\) 543 F.3d 665, 678, 88 U.S.P.Q.2d (BNA) 1658, 1668 (Fed. Cir. 2008) (rejecting the point of novelty test after much discussion and analysis of earlier case law).

\(^{33}\) Id., 88 U.S.P.Q.2d (BNA) at 1668.

\(^{34}\) 81 U.S. 511 (1871).
one supposing it to be the other." The "ordinary observer" test thus establishes a standard for design patent infringement similar to the "likelihood of confusion" standard for trademark-infringement cases.

Over time, however, the Federal Circuit added an additional "point of novelty" requirement. A design patent plaintiff now had to prove not only substantial similarity under Gorham's "ordinary observer" test, but also that the accused device contained "substantially the same points of novelty that distinguished the patented design from the prior art." The "point of novelty" test was intended to prevent a finding of infringement simply because two products generally looked similar, even though the accused device did not contain the novel design feature or features that allowed the patentee to obtain the patent. The "point of novelty" test, however, made proving infringement difficult in many cases because a design patent may have many points of novelty and a defendant could avoid infringement simply by omitting one of them.

In Egyptian Goddess, the Federal Circuit returned to Gorham, unanimously ruling that the "ordinary observer" is the sole test to determine design patent infringement. The Federal Circuit, however, tried to prevent findings of infringement based solely on similarity without reference to the novelty that justified the patent: the court required that that the ordinary observer in the Gorham test be someone with knowledge of the prior art. The Federal Circuit said that such familiarity with the prior art will allow a meaningful comparison of the accused devices with the patented claim. Such an approach, said the court, maintains the "focus on those aspects of a design which render the design different from prior art designs."

35. Id. at 528.
36. Egyptian Goddess, 543 F.3d at 682, 88 U.S.P.Q.2d (BNA) at 1671 (noting that an ordinary consumer would not be confused by the similarities between the two products).
39. See Egyptian Goddess, 543 F.3d at 677, 88 U.S.P.Q.2d (BNA) at 1667 (acknowledging the difficulty that the more points of novelty an item possesses, the easier it is for another producer to infringe the patent).
40. Id. at 665, 88 U.S.P.Q.2d (BNA) at 1658.
41. Id. at 677, 88 U.S.P.Q.2d (BNA) at 1667.
42. Id. at 674, 88 U.S.P.Q.2d (BNA) at 1665.
43. Id. at 677, 88 U.S.P.Q.2d (BNA) at 1667 (quoting Sun Hill Indus., Inc. v. Easter Unlimited, Inc., 48 F.3d 1193, 1197, 33 U.S.P.Q.2d (BNA) 1925, 1928 (Fed. Cir. 1995)).
while at the same time avoiding “the risk of assigning exaggerated importance to small differences between the claimed and accused designs relating to an insignificant feature simply because that feature can be characterized as a point of novelty.”

B. The U.S. Supreme Court: Quanta Decision

In June 2008, the Supreme Court in Quanta Computer, Inc. v. LG Electronics, Inc. issued a unanimous decision that sought to clarify the law of patent exhaustion. Specifically, the Court held that the “authorized sale of an article that substantially embodies a patent exhausts the patent holder’s rights and prevents the patent holder from invoking patent law to control postsale use of the article.”

The doctrine of patent exhaustion, or the “first-sale doctrine,” provides that the initial authorized sale of a patented item terminates (“exhausts”) all patent rights to that item. That is, if a patentee sells a patented article to a purchaser, the purchaser has the rights like any owner of personal property over that particular article—the right to use it, repair it, modify it, discard it, or resell it—unrestricted by any patent rights of the patentee. A subsequent downstream purchaser of the item, likewise, obtains the same rights to control its disposition.

Before Quanta, the Federal Circuit had limited the patent-exhaustion doctrine in two significant ways. In Mallinckrodt, Inc. v. Medipart, Inc., the Federal Circuit had held that exhaustion would be triggered—and a patentee’s infringement action barred—only if the patentee’s sale of the patented item was unconditional. Thus, under the so-called “conditional-sales doctrine,” patentees could, to avoid exhaustion, condition sales of patented articles on the purchaser agreeing to conditions, such as field-of-use or single-use restrictions. If the purchaser failed to follow those conditions, the patentee could enforce the conditions through a patent infringement.

44. Id. at 677, 88 U.S.P.Q.2d (BNA) at 1667–68.
46. Id. at 2113, 86 U.S.P.Q.2d (BNA) at 1675.
47. Id. at 2122, 86 U.S.P.Q.2d (BNA) at 1682.
48. Id. at 2115, 86 U.S.P.Q.2d (BNA) at 1677.
49. ROBERT L. HARMON, HARMON ON PATENTS: BLACK-LETTER LAW AND COMMENTARY § 31.6 (2007).
50. Id.
52. Id. at 706, 24 U.S.P.Q.2d (BNA) at 1178.
53. See id. at 709, 24 U.S.P.Q.2d (BNA) at 1180 (holding that prohibiting a purchaser from reusing a patented medical device was enforceable under patent law).
action (not just through an action under state contract law). Also, the Federal Circuit had previously held that a patentee’s sale of an item would exhaust the patentee’s rights only as to a patent’s apparatus claims; the patentee would retain all rights under its method claims.

In Quanta, LG Electronics, Inc. (“LGE”) entered into a broad cross-license agreement with Intel, Inc. LGE licensed to Intel a large portfolio of patents covering aspects of computer systems. The license agreement authorized Intel to “make, use, sell (directly or indirectly), offer to sell, import or otherwise dispose of” Intel products that practice the LGE patents. The license agreement explicitly stated that it did not extend a license to any third party to combine licensed products with unlicensed products. In a separate master agreement, LGE also required Intel to inform its purchasers that Intel’s license from LGE did not authorize the purchasers to combine the licensed Intel products with unlicensed non-Intel products.

Quanta Computer, Inc. purchased chips and chipsets from Intel and—despite Intel’s warning that Quanta had no license from LGE to combine Intel and non-Intel products—combined them with other components to make computers that infringed LGE’s system and method patents. LGE sued Quanta for infringement of its apparatus and method patents. Quanta raised a patent-exhaustion defense. The district court and the Federal Circuit rejected the defense. The Federal Circuit held that the exhaustion defense did not apply to method claims and that, in any event, LGE’s license was limited and did not authorize the sale of Intel products for use with non-Intel products.

On review via writ of certiorari, the Supreme Court reversed in a unanimous opinion by Justice Thomas. The Supreme Court

54. Id., 24 U.S.P.Q.2d (BNA) at 1180.
56. 128 S. Ct. at 2113, 86 U.S.P.Q.2d (BNA) at 1676.
57. Id., 86 U.S.P.Q.2d (BNA) at 1676.
58. Id. at 2114, 86 U.S.P.Q.2d (BNA) at 1676.
59. Id., 86 U.S.P.Q.2d (BNA) at 1676.
60. Id., 86 U.S.P.Q.2d (BNA) at 1676-77.
61. Id., 86 U.S.P.Q.2d (BNA) at 1676-77.
63. Id. at 2114-15, 86 U.S.P.Q.2d (BNA) at 1677.
64. Id. at 2115, 86 U.S.P.Q.2d (BNA) at 1677.
considered three questions: (1) whether the patent-exhaustion doctrine applied to method patents; (2) to what extent a product must embody a patent to trigger exhaustion; and (3) what constitutes an authorized first sale sufficient to trigger exhaustion.

The Court quickly dispensed with the first question, holding that method claims are exhaustible. The Court stated that it had long held that the exhaustion doctrine applies not only to product claims. Moreover, and perhaps more central to the Court’s thinking, Justice Thomas pointed out that “[e]liminating exhaustion for method patents would seriously undermine the exhaustion doctrine” because patent drafters could shield items from exhaustion by redrafting apparatus claims as method claims.

The Court then considered “the extent to which a product must embody a patent in order to trigger exhaustion.” The Court relied heavily on the test it articulated in United States v. Univis Lens Co., a 1942 decision that, the Court said, “governs this case.” In Univis, the Court held that the sale of a product that does not fully practice the patent at issue can still trigger patent exhaustion if its “only reasonable and intended use was to practice the patent and [it] ‘embodie[s] essential features of [the] patented invention.’” The Court determined that the Intel chips and chipsets met this standard and triggered the exhaustion doctrine because they “all but completely practice the patent.” Although the chips and chipsets were not capable, by themselves, of infringing LGE’s patent claims, they nonetheless “substantially embodie[d] the patent because the only step necessary to practice the patent is the application of common processes or the addition of standard parts.” Everything inventive about each patent was embodied in the Intel chips and chipsets; infringement required only a “common and noninventive” final step.

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65. Id. at 2109, 86 U.S.P.Q.2d (BNA) at 1673.
66. See id. at 2117, 86 U.S.P.Q.2d (BNA) at 1678–79 (“Nothing in this Court’s approach to patent exhaustion supports LGE’s argument that method patents cannot be exhausted.”).
68. See id. at 2117–18, 86 U.S.P.Q.2d (BNA) at 1680.
69. Id. at 2118, 86 U.S.P.Q.2d (BNA) at 1679.
71. Quanta, 128 S. Ct. at 2119, 86 U.S.P.Q.2d (BNA) at 1680.
73. Id. at 2120, 86 U.S.P.Q.2d (BNA) at 1680.
74. Id., 86 U.S.P.Q.2d (BNA) at 1680.
75. Id., 86 U.S.P.Q.2d (BNA) at 1681.
Finally, the Court considered whether Intel’s sale of products to Quanta exhausted LGE’s patent rights.\textsuperscript{76} The Court noted that exhaustion is triggered only by a sale authorized by the patent holder, but the Court found that Intel’s sales to Quanta were authorized.\textsuperscript{77} Notwithstanding Intel’s obligation under the master agreement that it notify purchasers that they did not have a license to combine licensed Intel products with unlicensed non-Intel products, the Court found it dispositive that nothing in the license agreement restricted Intel’s right to sell its microprocessors and chipsets to purchasers who intended to combine them with non-Intel parts.\textsuperscript{78} The Court said that the license agreement did not condition Intel’s authority to sell its products on whether Intel gave, or Quanta complied with, the notice required under the master agreement.\textsuperscript{79} In short, “[n]o conditions limited Intel’s authority to sell products substantially embodying the patents.”\textsuperscript{80}

The Court did remark in a footnote that, although the patent-exhaustion doctrine prevented LGE from asserting its patent rights against Quanta, “the authorized nature of the sale to Quanta does not necessarily limit LGE’s other contract rights.”\textsuperscript{81} The Court “express[ed] no opinion on whether contract damages might be available even though exhaustion operates to eliminate patent damages.”\textsuperscript{82}

Some commentators have suggested that, in the wake of Quanta, a patentee may try to retain patent-law remedies by imposing, in license agreements with manufacturers, conditions on the manufacturers’ authority to sell patented items.\textsuperscript{83} The patentee could then argue that sales in violation of those conditions were unauthorized and that patent exhaustion would not restrict the patentee’s remedies.\textsuperscript{84} Quanta did not directly address the continued viability of the Federal Circuit’s conditional-sales doctrine, which, as noted above, allows patentees to enforce, through the patent laws, conditions on

\begin{itemize}
\item \textsuperscript{76} Id. at 2121, 86 U.S.P.Q.2d (BNA) at 1681.
\item \textsuperscript{77} Id., 86 U.S.P.Q.2d (BNA) at 1682.
\item \textsuperscript{78} Id., 86 U.S.P.Q.2d (BNA) at 1682.
\item \textsuperscript{79} Id. at 2121-22, 86 U.S.P.Q.2d (BNA) at 1682.
\item \textsuperscript{80} Id. at 2122, 86 U.S.P.Q.2d (BNA) at 1682.
\item \textsuperscript{81} Id. at 2122 n.7, 86 U.S.P.Q.2d (BNA) at 1682 n.7 (emphasis added).
\item \textsuperscript{82} Id., 86 U.S.P.Q.2d (BNA) at 1682 n.7.
\item \textsuperscript{83} See David J. Cavanaugh & Owen K. Allen, High Court Sees a Lot More Exhaustion, \textit{LEGAL TIMES}, July 7, 2008, at 14–15 (noting that, in the wake of Quanta, “patent law now provides less certain protection for patentees’ efforts to control products after they are sold,” and advising patentees that they would be well advised to take care to ensure that “downstream rights are preserved to the fullest extent” in future licensing agreements).
\item \textsuperscript{84} See id.
\end{itemize}
direct purchasers’ use of patented items. Although the Solicitor General had broadly asked the Supreme Court to reject the Federal Circuit’s conditional-sales precedent, the Supreme Court did not directly address the issue or even mention the Federal Circuit’s decision in Mallinckrodt, instead focusing on Intel’s status as a licensee whose sales of the patented item were unrestricted by LGE’s license agreement.

C. The Executive Branch: The Rules Promulgated by the U.S. Patent and Trademark Office

In 2008, the most significant development, with regard to United States Patent and Trademark Office (“USPTO” or “PTO”) rules, concerned rules published by the USPTO on August 21, 2007. These rules would have made a number of controversial revisions relating to patent prosecution. Two key aspects of the revised rules involved limitations on the number of continuation applications and the number of claims in an application. In particular, the revised rules provided that an applicant seeking to file more than two continuation or continuation-in-part applications, or more than one request for continued examination, must present a showing as to why an amendment, argument, or evidence sought to be entered could not have been previously submitted. The revised rules also required an applicant to file an examination support document covering all of the claims in any application containing more than five independent claims or twenty-five total claims.

On October 31, 2007, the United States District Court for the Eastern District of Virginia preliminarily enjoined the USPTO from putting its new patent prosecution rules into effect. On April 1, 2008, the court granted summary judgment in favor of the plaintiffs and voided the USPTO’s final rules (“Final Rules”) in the two consolidated cases, Tafas v. Dudas and SmithKline Beecham Corp. v. Dudas. The court determined that the rules were “not in

88. Id. at 46,719–20.
89. Id. at 46,721–22.
accordance with law’ and ‘in excess of [the] statutory jurisdiction [and] authority’ of the USPTO.92 Contrary to the USPTO’s arguments, Senior Judge Cacheris found that the Final Rules were substantive in nature and thus beyond the rulemaking power of the USPTO.93 While the USPTO argued that the rules fell within their rulemaking authority and were procedural in nature, the court found that the Final Rules were not procedural rules and did not relate only to application processing.94 Instead, the Final Rules were found to be “substantive rules that change existing law and alter the rights of applicants such as [GlaxoSmithKline] and Tafas under the Patent Act.”95 The rules “constitute a drastic departure from the terms of the Patent Act as they are presently understood.”96 This case was appealed to the Federal Circuit, and oral arguments were heard on December 5, 2008.97

Unrelated USPTO rules became effective on September 15, 2008.98 These rules clarified that “[r]egistration as a patent practitioner does not itself entitle an individual to practice before the Office in trademark matters.”99 The rules also stated that, as before, any party presenting any paper to the USPTO is certifying that the statements made in such paper, to the best of the party’s knowledge, are true, and that such paper is not being submitted frivolously or for any improper purpose.100 The new rules extended this certification to all papers presented to a hearing officer in a disciplinary proceeding.101 Furthermore, while violations of this section may “jeopardize the probative value of the paper,” under the new rules, they no longer threaten the validity of an entire application or of any issued patents or registered trademarks.102 The old rule (37 C.F.R. § 10.18(b)(1)) stated that with the presentation of any paper to the USPTO, the party presenting such paper was certifying that, to the best of the party’s knowledge, all statements made therein were true, and that

92. Id. at 811, 86 U.S.P.Q.2d (BNA) at 1627 (citing 5 U.S.C. § 706(2) (2006)).
93. Id., 86 U.S.P.Q.2d (BNA) at 1627.
94. Id. at 813, 86 U.S.P.Q.2d (BNA) at 1629.
95. Id. at 814, 86 U.S.P.Q.2d (BNA) at 1629.
96. Id., 86 U.S.P.Q.2d (BNA) at 1629.
99. Id. at 47,670 (revising 37 C.F.R. § 11.14(a) (2008)).
100. Id. at 47,652.
101. Id. at 47,653.
102. Id.
violations of the rule “may jeopardize the validity of the application or document, or the validity or enforceability of any patent, trademark registration, or certificate resulting therefrom.” 103 The new rule (37 C.F.R. § 11.18(b)(1)) states that violations of this rule “may jeopardize the probative value of the paper.” 104 The new rules also govern the conduct of investigations and disciplinary proceedings before the USPTO. 105 The rules establish the disciplinary jurisdiction of the USPTO and establish explicit grounds for discipline. 106

On June 10, 2008, the USPTO published new rules regarding the formatting and content of appeal briefs. 107 These rules, which were set to take effect on December 10, 2008, were delayed pending review by the Office of Management and Budget. 108


At the beginning of 2008, congressional patent reform appeared imminent. On September 7, 2007, the House of Representatives easily passed House Bill 1908, the Patent Reform Act of 2007, with a vote of 220 (ayes) to 175 (nays). 109 A somewhat similar reform bill in the Senate, Senate Bill 1145, had already passed the Senate’s Committee on the Judiciary on July 19, 2007. 110 At the end of 2007, Senator Patrick Leahy, the sponsor of Senate Bill 1145, encouraged the House and Senate to reach a compromise in early 2008 with “the goal of favorable Senate action as early as the floor schedule permits” on a patent reform package. 111 On January 24, 2008, Senate Bill 1145 was placed on the Senate’s legislative calendar. 112

The possibility of passing Senate Bill 1145 disappeared in 2008, however, after facing considerable opposition. Opponents of the bill’s provisions included the USPTO, 113 the Bush Administration, 114

104. 73 Fed. Reg. at 47,653.
105. Id.
106. Id.
112. S. 1145.
113. Donna Young, FDA, Congress To Jointly Form Follow-on Biologics Proposal, BIOWORLD TODAY, Feb. 11, 2008. This article reported on the media statement made by Jon Dudas, Under Secretary of Commerce for Intellectual Property at the USPTO, on Feb. 5, 2008. Id. In his statement, Mr. Dudas claimed that the reform package “undermines innovation, particularly in the damages provision” and would be damaging to the biotech industry, universities, and small inventors. Id.
major labor unions (such as the AFL-CIO), universities, and representatives from the pharmaceutical and biotechnology industries, among others. At the end of 2008, Congress ultimately proved unable to institute patent reform.

114. Letter from Carlos M. Gutierrez, Sec’y of Commerce, to Patrick Leahy, U.S. Senator (Apr. 3, 2008), available at http://www.ogc.doc.gov/ogc/legreg/letters/110/S1145Apr0308.pdf. In the letter, Mr. Gutierrez expressed the Bush Administration’s position on patent reform efforts. The Administration expressed strong opposition to changes in the doctrine of inequitable conduct that would lessen the penalties for such actions without enactment of applicant quality submissions designed to improve application quality. Id. at 1. In addition, the Administration stated its “overriding concern” regarding Congress’s revisions to the damages statute, in particular, decreasing the discretion granted to judges in awarding damages. Id. at 2; see also Letter from Nathaniel F. Wienecke, Assistant Sec’y of Legislation and Intergovernmental Affairs, to Patrick Leahy, U.S. Senator (Feb. 4, 2008), available at http://www.ogc.doc.gov/ogc/legreg/letters/110/S1145020408.pdf (detailing opposition to damages provisions in S. 1145, as reported on January 24, 2008, as well as other areas of concern).


Congress has been actively proposing patent reform legislation since at least 2005. The reform efforts are designed to institute the most substantial change in the patent laws since the passage of the Patent Act in 1952. For example, the goals of reform stated during the 2008 introduction of Senate Bill 1145 were lofty:

(i) to improve patent quality and the patent application process;
(ii) to improve and clarify several aspects of patent litigation, including the creation of a less expensive, more expeditious administrative alternative to litigating patent validity issues; and
(iii) to make the United States' patent system, where it is useful to do so, more consistent with patent systems throughout the rest of the industrialized world.

To accomplish these goals, the Patent Reform Act of 2007, as proposed in the Senate in 2008 and passed by the House in 2007, provided for the United States to convert from a first-to-invent system to a first-to-file system, thereby harmonizing the U.S. patent system with the rest of the patent systems in the world. In addition, both the Senate and House reform bills would have created an administrative system for challenging patents more quickly and cheaply after their issuance (a “post-grant opposition” proceeding).

The proposed reform also affected the calculation of reasonable royalty damages. House Bill 1908 required that the royalty be
calculated by apportionment or the entire market value rule; only as a last resort could the fact finder use the familiar Georgia Pacific Corp. v. United States Plywood Corp.\textsuperscript{124} factors used to calculate a reasonable royalty.\textsuperscript{125} In Senate Bill 1145, as introduced in 2008, reasonable royalties were to be calculated using the entire market value rule, an established market royalty, or if neither of those provisions were appropriate, through an apportionment method.\textsuperscript{126}

A variety of other changes rounded out the reform packages of the Patent Act of 2007, including modification of the current law relating to the best mode requirement,\textsuperscript{127} inequitable conduct,\textsuperscript{128} and venue,\textsuperscript{129} as well as the creation of additional disclosure obligations for patent applicants in an effort to increase the quality of patents.\textsuperscript{130}

Patent reform has generated a number of divergent views on the best ways to improve the current patent-law system. The most recognized competing factions are technology industries, such as software and semiconductor developers, and the biotechnology and pharmaceutical industries.

In very general terms, the biotechnology and pharmaceutical industries typically favor reform that strengthens the rights of the patent holder. According to researchers, these industries tend to have only a few patents that cover key inventions, and innovation is extremely expensive compared to the cost of copying.\textsuperscript{131} As a result, biotechnology and pharmaceutical companies seek to protect their patent rights by discouraging infringement and minimizing mechanisms for challenging their patents.\textsuperscript{132} The biotechnology and pharmaceutical sector has therefore primarily opposed efforts by

\textsuperscript{125} H.R. 1908 § 5(a)(3); see also Ga.-Pac. Corp., 318 F. Supp. at 1120, 166 U.S.P.Q. (BNA) at 238 (listing fourteen factors taken from leading cases which can be used to help determine the amount of a reasonable royalty for a patent license).
\textsuperscript{126} S. 1145 § 4(a).
\textsuperscript{127} H.R. 1908 § 13.
\textsuperscript{128} H.R. 1908 § 12(b); S. 1145 § 12.
\textsuperscript{129} H.R. 1908 § 11(a); S. 1145 § 8(a).
\textsuperscript{130} H.R. 1908 §12 (a); S. 1145 § 11.
\textsuperscript{131} See Wendy Schact, Patent Reform: Issues in the Biomedical and Software Industries, 27 BIOTECH. L. REP. 153, 156 (2008) (noting that patents could be important to the pharmaceutical industry due the ease in which such products can be replicated).
\textsuperscript{132} See supra note 117 (listing letters from pharmaceutical and biotechnology companies to members of Congress advocating for the protection of their patent rights in proposed legislation); Donna Young, Analysts Say Patent Reform Will Harm Biotech, Add Costs, BIOWORLD TODAY, Feb. 15, 2008. Biotechnology and pharmaceutical companies also favor lessening the penalty associated with inequitable conduct given the time and expense associated with litigating such claims; congressional attempts to merely codify existing inequitable conduct law have met with resistance from these groups. Id.
Congress to reduce damage awards, which act to deter infringement. In addition, post-grant opposition proceedings are viewed unfavorably by the biotechnology and pharmaceutical industry given that the goal of such proceedings is to make invalidation of patents faster and less burdensome to patent challengers.

The high-tech industry, on the other hand, faces different problems. For this sector, companies tend to have a large number of patents that cover relatively minor changes to existing technologies. The products sold by such companies are the result of a number of prior patented inventions. As a result, technology companies are concerned with facing damages for infringement that are based on the sale of the total product rather than the contribution to that product made by the (typically small and relatively insignificant) infringing inventive portion of the product. To combat the problems of “overcompensation” for infringement, technology companies favor apportionment of damages and other methods of cabining the potential damages awards in infringement suits. In addition, because of the speed at which inventions in the high-tech industry become obsolete, technology companies also favor rapid, streamlined systems for invalidating patents, such as administrative post-grant opposition proceedings with lower burdens of proof.

Despite the contentiousness of patent reform, there is continued interest in 2009 for the reforms proposed by House Bill 1908 and

133. Young, supra note 132.
134. Id.
135. See Schact, supra note 131, at 158 (reporting that new products in software development can embody numerous patentable inventions).
136. Id. at 159.
138. See Gross, supra note 137 (discussing how proposed patent reform legislation, supported by Microsoft, would limit damages based on the number of patents within a product).
139. Id.
Senate Bill 1145. Along with Senate Bill 1145, a revised reform bill—the Patent Reform Act of 2008 (Senate Bill 3600)—was introduced to the Senate in the fall of 2008 for consideration in 2009. Like the Patent Reform Act of 2007, the Patent Reform Act of 2008 proposes changes to damages law and creates a post-grant review proceeding. Elimination of the first-to-invent system and even the “on-sale” and “public use” provisions of 35 U.S.C. § 102 are proposed. Other revisions in Senate Bill 3600 would affect venue, inequitable conduct, and applicant submission standards.

II. DECISIONS RELATING TO JURISDICTION AND ASSERTABILITY OF CLAIMS

A. Justiciability

1. Standing

Before a federal court may decide the merits of a case, a plaintiff must first establish that he or she has standing to sue. A patentee’s standing to sue for patent infringement is derived from the Patent Act, which states that “[a] patentee shall have remedy by civil action for infringement of his patent.”


141. S. 3600, 110th Cong. (2008); 154 CONG. REC. S9982 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl) (introducing S. 3600 in 2008 “to allow Senators and interested parties the time to consider these alternatives as we prepare for the patent reform debate in the next Congress.”)

142. S. 3600 § 4(a). The damages provision in S. 3600 focuses on strengthening the “gatekeeper” role of the court. 154 CONG. REC. S9983 (statement of Sen. Kyl). While the damages section of S. 3600 codifies the principle that all relevant factors should be considered in reaching a reasonable royalty (S. 3600 § 4(a)), the legislation also provides that certain methods of calculating reasonable royalties, such as standardized measures of damages (“rules of thumb”) and royalties paid on comparable patents, should only be considered in limited circumstances. Id.

143. S. 3600 § 5.

144. S. 3600 § 2(a).

145. S. 3600 § 2(b).

146. S. 3600 § 8.

147. S. 3600 § 11.

148. S. 3600 § 10.

149. See Warth v. Seldin, 422 U.S. 490, 498–99 (1975) (explaining that standing ensures both the party and the dispute are properly before the court and surveying Article III and prudential standing requirements).


In Akazawa v. Link New Technology International, Inc., any assignment of a patent or an interest in a patent must be in writing. The inventor of the patent at issue in Akazawa, however, died intestate without a written will. The inventor’s heirs subsequently assigned their interest in the patent to a third party, who then assigned all rights to Akira. When Akira later brought suit against Link New Technology, Link moved for summary judgment on the ground that the initial intestate transfer was not a valid assignment of patent rights. Link reasoned—and the district court agreed—that because no valid assignment had occurred ownership of the patent remained vested in the estate and Akira had no standing to sue.

Akira appealed, and the Federal Circuit vacated the district court’s decision. The court observed that 35 U.S.C. § 261 is not the only method for transferring ownership of a patent. A change of ownership may also be dictated by operation of law. Accordingly, when a patent owner dies, the jurisdiction’s law of intestacy will determine who then owns the patent.

Moreover, because state law typically governs patent ownership rather than federal patent law, ownership of the patent at issue required interpretation of Japanese intestacy law. The Federal Circuit accordingly remanded the case to the trial court with instructions to interpret Japanese law to determine whether Akira had standing to bring suit.

The Federal Circuit also had occasion in 2008 to address the reoccurring issue of a patent co-owner’s standing to bring suit where the co-owner has failed to join all other owners of the patent. In Lucent Technologies, Inc. v. Gateway, Inc., Lucent brought suit against Gateway, Dell, and Microsoft for infringement of patents relating to

152. 520 F.3d 1354, 86 U.S.P.Q.2d (BNA) 1279 (Fed. Cir. 2008).
153. Id. at 1355, 86 U.S.P.Q.2d (BNA) at 1280.
155. Akazawa, 520 F.3d at 1355, 86 U.S.P.Q.2d (BNA) at 1280.
156. Id., 86 U.S.P.Q.2d (BNA) at 1280.
157. Id., 86 U.S.P.Q.2d (BNA) at 1280.
158. Id., 86 U.S.P.Q.2d (BNA) at 1280.
159. Id., 86 U.S.P.Q.2d (BNA) at 1280.
160. Id., 86 U.S.P.Q.2d (BNA) at 1281.
161. Id., 86 U.S.P.Q.2d (BNA) at 1281.
162. Id., 86 U.S.P.Q.2d (BNA) at 1281.
163. Id. at 1356, 86 U.S.P.Q.2d (BNA) at 1281.
164. Id., 86 U.S.P.Q.2d (BNA) at 1281.
165. Id., 86 U.S.P.Q.2d (BNA) at 1282.
166. Id. at 1357–58, 86 U.S.P.Q.2d (BNA) at 1282.
167. Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1283.
Lucent had developed the patents while party to a joint development agreement with a German company, Fraunhofer Gesellschaft. Lucent, however, had failed to join Fraunhofer to the suit.

After the jury found the defendants liable for infringement, the court set aside the verdict and granted the defendants judgment as a matter of law. The court found that, as a matter of law, Fraunhofer was a co-owner of one of the patents-in-suit as a result of the joint development agreement. Because a patent co-owner must join all other owners in order to sue for patent infringement, Lucent lacked standing to assert claims related to this patent against the defendants.

Lucent appealed, arguing in part that the joint development agreement impermissibly attempted to assign joint ownership to only some of the claims. Because a patentee may only assign title to an entire patent, such a partial assignment would be impermissible.

The Federal Circuit rejected Lucent's interpretation of the joint development agreement and affirmed the district court's ruling. The court noted that while "patent rights cannot be split between claims," an inventor of less than all of the claims in a patent is nevertheless a co-owner of all claims in the patent. Because Lucent had chosen to file its patent applications in a manner that contradicted Lucent's interpretation of the development agreement, Fraunhofer was a co-owner of the patent at issue notwithstanding the terms of that agreement. Accordingly, Lucent lacked standing to assert the patent absent the presence of Fraunhofer.

A patentee's failure to join all co-owners may not always be an error of its own making. In DDB Technologies, L.L.C. v. MLB Advanced Media, L.P., a co-inventor of the patent at issue developed the invention while covered by an employment agreement with Schlumberger Technology Corporation ("Schlumberger"). This

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166. Id. at 713, 88 U.S.P.Q.2d (BNA) at 1482.
167. Id. at 714–15, 88 U.S.P.Q.2d (BNA) at 1483–84.
168. Id. at 721, 88 U.S.P.Q.2d (BNA) at 1489.
169. Id. at 712, 88 U.S.P.Q.2d (BNA) at 1482.
170. Id. at 716, 88 U.S.P.Q.2d (BNA) at 1485.
172. Id. at 720, 88 U.S.P.Q.2d (BNA) at 1485.
173. Id., 88 U.S.P.Q.2d (BNA) at 1488.
174. Id. at 722, 88 U.S.P.Q.2d (BNA) at 1489.
175. Id. at 721, 88 U.S.P.Q.2d (BNA) at 1489.
176. Id. at 722, 88 U.S.P.Q.2d (BNA) at 1489.
177. Id., 88 U.S.P.Q.2d (BNA) at 1489.
179. Id. at 1286, 85 U.S.P.Q.2d (BNA) at 1944.
employment agreement purported to “grant and assign” to Schlumberger all rights to inventions falling within the scope of inventor’s employment. The invention at issue, however, related to the computer simulation of sporting events while Schlumberger was involved in oil wells. When the patent owner, DDB Technologies, L.L.C., later sought to enforce the patent against MLB Advanced Media, L.P. (“MLBAM”), MLBAM acquired from Schlumberger all rights and interests that it might have in the patent along with a retroactive license. MLBAM moved to dismiss the action, claiming that DDB had failed to join its purported co-owner, Schlumberger, for the portion of its claim covering the period leading up to the lawsuit and that DDB was legally precluded from suing its purported co-owner, MLBAM, for ongoing infringement. After finding that the co-inventor’s rights to the patent had been automatically divested at the time of invention by the employment agreement, the district court granted MLBAM’s motion.

A divided panel of the Federal Circuit affirmed in part in a decision that touched on a number of issues relating to an employer’s ownership of a device invented during an employee’s time of employment. First, Judges Dyk and Clevenger, who made up the majority, determined that interpretation of a contract provision purporting to automatically assign a patent was a matter of federal, rather than state, law. Second, the court differentiated between those employment contracts that automatically grant all rights to future inventions and employment contracts that merely oblige the inventor to grant rights in the future. Third, the court determined that whether the patent at issue fell within the scope of the employment agreement was a matter of state law. Finally, the court applied Federal Circuit law in concluding that the plaintiff should be

180. Id. at 1290, 85 U.S.P.Q.2d (BNA) at 1947.
181. Id. at 1287, 85 U.S.P.Q.2d (BNA) at 1945.
182. Id. at 1288, 85 U.S.P.Q.2d (BNA) at 1945.
184. Id. at 1288–89, 85 U.S.P.Q.2d (BNA) at 1945–46.
185. Id. at 1289–90, 85 U.S.P.Q.2d (BNA) at 1946–50.
186. Id. at 1289–90, 85 U.S.P.Q.2d (BNA) at 1946–47.
187. Id. at 1290, 85 U.S.P.Q.2d (BNA) at 1947; see also, e.g., FilmTec Corp. v. Allied-Signal, Inc., 939 F.2d 1568, 1573, 19 U.S.P.Q.2d (BNA) 1508, 1512 (Fed. Cir. 1991) (finding that, in the contract at issue, the inventor agreed to grant, and did expressly grant, all rights in future inventions).
188. DDB Techs., L.L.C., 517 F.3d at 1290, 85 U.S.P.Q.2d (BNA) at 1947; see also, e.g., Arachnid, Inc. v. Merit Indus., Inc., 939 F.2d 1574, 1581, 19 U.S.P.Q.2d (BNA) 1513, 1518 (Fed. Cir. 1991) (finding that where the contract provided that “all rights . . . ‘will be assigned’ by [inventor] to [client],” the contract merely obliged the inventor to grant rights in the future).
permitted additional discovery on the issue of whether the patents fell within the scope of the employment agreement.\textsuperscript{190} The court therefore remanded for further discovery on this issue.\textsuperscript{191}

In dissent, Judge Newman differed with the majority on a number of substantive and procedural issues.\textsuperscript{192} According to Judge Newman, the majority had engaged in “grievous overreaching . . . contrary to law and precedent” in finding that federal law controlled the interpretation of the contract merely because standing was involved.\textsuperscript{193} Judge Newman argued that “[s]tate statutory and common law have long been recognized as governing the ownership of patent property.”\textsuperscript{194} Accordingly, Judge Newman wrote, “There is no authority for preempting state law, no authority for eliminating state law principles of property ownership, no authority for divesting state authority to determine rights and obligations set by employment contract, no authority for rejecting the extensive state precedent of law and procedure governing these issues.”\textsuperscript{195}

Judge Newman also disagreed with the majority’s holding that DDB could not forcibly join Schlumberger.\textsuperscript{196} Judge Newman stated that not only does the provision of Federal Rule of Civil Procedure 19 permitting involuntary joinder make no exception for patent cases,\textsuperscript{197} but that it has long been established that involuntary joinder may be used in an infringement action.\textsuperscript{198}

Finally, Judge Newman was critical of the majority on the issue of whether the employment contract applied as a matter for “jurisdictional discovery.”\textsuperscript{199} Treating this issue as jurisdictional, according to Judge Newman, directly contradicted the Supreme Court’s recent admonition in Arbaugh v. Y & H Corp.\textsuperscript{200} that the
Federal Circuit should stop treating threshold facts as jurisdictional unless directed otherwise by Congress.\textsuperscript{201}

Standing issues may also arise when the plaintiff is a licensee, rather than the patent owner.\textsuperscript{202} In order to have constitutional standing to bring an infringement action, the plaintiff must either be the patent owner or an exclusive licensee.\textsuperscript{203} “To be an exclusive licensee for standing purposes, a party must have received not only the right to practice the invention within a given territory, but also the patentee’s express or implied promise that others shall be excluded from practicing the invention within that territory.”\textsuperscript{204}

In Mars, Inc. v. Coin Acceptors, Inc.,\textsuperscript{205} the Federal Circuit affirmed the district court’s denial of leave to amend to add a licensee, MEI, as a co-plaintiff to Mars’s patent infringement complaint.\textsuperscript{206} Mars claimed that MEI had an exclusive license to practice the patents-in-suit in the United States and therefore had standing to sue.\textsuperscript{207} Mars, however, had also granted a second subsidiary a license to practice the patents-in-suit anywhere in the world.\textsuperscript{208} Accordingly, MEI could not possibly have had an implied, de facto exclusive license and therefore could not be joined as a co-plaintiff in the suit.\textsuperscript{209}

The Federal Circuit also determined that the history of licenses to the patents-at-issue raised additional standing issues. For a portion of the time period for which Mars sought damages, Mars had transferred to MEI title to the patent.\textsuperscript{210} The plaintiff in an infringement action, however, “must be the person or persons in whom the legal title to the patent resided at the time of the

\textsuperscript{201} DDB Techs., L.L.C., 517 F.3d at 1298–99, 85 U.S.P.Q.2d (BNA) at 1953 (Newman, J., dissenting); see also Arbaugh, 546 U.S. at 511 (observing that when a court dismisses a case for lack of jurisdiction because a threshold fact has not been established the result is an unrefined disposition that should not have a precedential effect).

\textsuperscript{202} See, e.g., Morrow v. Microsoft Corp., 499 F.3d 1332, 1341, 84 U.S.P.Q.2d (BNA) 1377, 1384 (Fed. Cir. 2007) (noting that exclusive license, the exclusive right to license, and the right to sublicense are important aspects of exclusionary rights); Sicom Sys., Ltd. v. Agilent Techs., Inc., 427 F.3d 971, 976, 76 U.S.P.Q.2d (BNA) 1933, 1937 (Fed. Cir. 2005) (observing that without joinder of patentee, a licensee normally does not have standing to sue).


\textsuperscript{204} Id. at 1368, 87 U.S.P.Q.2d (BNA) at 1083 (quoting Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1552, 35 U.S.P.Q.2d 1065, 1074 (Fed. Cir. 1995)).

\textsuperscript{205} Id. at 1359, 87 U.S.P.Q.2d (BNA) at 1076.

\textsuperscript{206} Id. at 1374, 87 U.S.P.Q.2d (BNA) at 1088.

\textsuperscript{207} Id. at 1367–68, 87 U.S.P.Q.2d (BNA) at 1083–84.

\textsuperscript{208} Id. at 1366, 87 U.S.P.Q.2d (BNA) at 1083.

\textsuperscript{209} Id., 87 U.S.P.Q.2d (BNA) at 1083.

\textsuperscript{210} Because neither Mars nor MEI challenged the district court’s determination that MEI lacked standing for this period, the Federal Circuit did not address the issue on appeal. Id. at 1372 n.4, 87 U.S.P.Q.2d (BNA) at 1086 n.4.
infringement.” Although Mars lacked title for a portion of the relevant period, the Federal Circuit reaffirmed an earlier decision that a patentee who has transferred legal title to another during the time of infringement can under some circumstances cure the resulting jurisdictional defect by reacquiring title to the patent before final judgment. Here, Mars and MEI had executed an agreement that the district court interpreted as transferring title back to Mars. The Federal Circuit disagreed. Applying New York contract law, the court determined that MEI only purported to transfer back to Mars “the right to sue for past infringement.” Under established Federal Circuit precedent, however, such an attempted assignment does not convey either title or standing in an infringement action. Accordingly, Mars itself lacked standing for the period in which it had transferred ownership to MEI.

2. Mootness

The exercise of federal judicial power pursuant to Article III of the United States Constitution requires the existence of an ongoing case or controversy. Federal courts are without power to decide questions that cannot affect the rights of litigants in the case before them.

In Samsung Electronics Co. v. Rambus, Inc., the Federal Circuit had an opportunity to address the effect an offer for full relief has on a court’s power to entertain a claim for attorney fees. Samsung sought a declaratory judgment “that the patents at issue were invalid, unenforceable, and not infringed.” After losing a procedural motion, Rambus filed covenants not to sue, dropped its counterclaims, and offered to pay Samsung’s attorney fees in order to avoid having the court publish adverse findings from an earlier, related case. Samsung refused this offer for full relief and persisted

211. Id. at 1370, 87 U.S.P.Q.2d (BNA) at 1084 (quoting Crown Die & Tool Co. v. Nye Tool & Mach. Works, 261 U.S. 24, 40 (1923)).
213. Id. at 1363-64, 87 U.S.P.Q.2d (BNA) at 1079-80.
214. Id. at 1371-72, 87 U.S.P.Q.2d (BNA) at 1086.
215. Id. at 1371, 87 U.S.P.Q.2d (BNA) at 1086 (citing Morrow v. Microsoft Corp., 499 F.3d 1332, 1342, 84 U.S.P.Q.2d (BNA) 1377, 1384 (Fed. Cir. 2007)).
216. Id. at 1372, 87 U.S.P.Q.2d (BNA) at 1086.
220. Id. at 1376, 86 U.S.P.Q.2d (BNA) at 1605.
221. Id., 86 U.S.P.Q.2d (BNA) at 1605.
222. Id. at 1377, 86 U.S.P.Q.2d (BNA) at 1605-06.
with its motion for attorney fees, which the trial court denied.\textsuperscript{223} Although the court denied the only relief Samsung sought, it nevertheless found the case exceptional and issued the unpublished spoliation findings from the previous litigation.\textsuperscript{224}

The Federal Circuit vacated this order and remanded with instructions to dismiss the case.\textsuperscript{225} According to the court, “An offer for full relief moots a claim for attorney fees.”\textsuperscript{226} The court explained that exceptionality is not a separate sanction, but rather is a precondition for the imposition of attorney fees.\textsuperscript{227} Accordingly, “[a]fter Rambus offered the entire amount of attorney fees in dispute, the case became moot.”\textsuperscript{228} Because there was no longer an active controversy, the district court’s writing constituted an impermissible advisory opinion that the Federal Circuit was required to vacate.\textsuperscript{229}

B. Subject Matter Jurisdiction

The federal district courts have subject matter jurisdiction over “all civil actions arising under the Constitution, laws, or treaties of the United States.”\textsuperscript{230} Although broad, this grant does not relieve the federal courts from the obligation to ensure that subject matter jurisdiction exists in any particular case.\textsuperscript{231}

In Christianson v. Colt Industries Operating Corp.,\textsuperscript{232} the Supreme Court established a two-part test for determining whether federal courts have exclusive jurisdiction over a patent case pursuant to 28 U.S.C. § 1338(a).\textsuperscript{233} Under this test, a court must ask whether a well-pleaded complaint establishes either that: (1) “federal patent law creates the cause of action”; or (2) “the plaintiff’s right to relief necessarily depends on resolution of a substantial question of federal patent law, in that patent law is a necessary element of one of the well-pleaded claims.”\textsuperscript{234}
The answer to the question of whether a court has subject matter jurisdiction over a patent dispute will often be clear. In ExcelStor Technology, Inc. v. Papst Licensing GMBH, the plaintiff brought an action in federal district court claiming fraud and breach of contract in relation to a patent licensing agreement. Although these claims arose under state law of contract and fraud, the plaintiff argued that the federal court’s exclusive subject matter jurisdiction was triggered by the plaintiff’s citation to the “patent exhaustion” doctrine. The district court disagreed and dismissed the complaint for lack of subject matter jurisdiction, stating that patent exhaustion is a defense to patent infringement and not a cause of action sufficient to confer federal jurisdiction over the case. On appeal, the Federal Circuit applied the Christianson two-part test for determining whether jurisdiction exists under § 1338 and affirmed, stating that ExcelStor’s claims did not “arise under” the patent laws but merely invoked a defense to a hypothetical claim of patent infringement.

A court, however, may sometimes find itself facing a close question of whether a certain threshold fact is (1) an element of the claim that must be established on the merits, or (2) a jurisdictional limitation on the court’s power to hear the controversy. Recently, in Arbaugh, the Supreme Court provided guidance for determining whether a threshold fact represents a jurisdictional limitation or whether it is simply an element of the claim: “[W]hen Congress does not rank a statutory limitation on coverage as jurisdictional, courts should treat the restriction as nonjurisdictional in character.”


235. See, e.g., Fair v. Kohler Die & Specialty Co., 228 U.S. 22, 24–25 (1913) (stating that the plaintiff “obviously . . . sued upon the patent law,” while also observing that “the party who brings a suit is master to decide what law he will rely upon, and therefore does determine whether he will bring a ‘suit arising under’ the patent or other law of the United States by his declaration or bill”); Pixton v. B&B Plastics, Inc., 291 F.3d 1324, 1327, 62 U.S.P.Q.2d (BNA) 1944, 1946 (Fed. Cir. 2002) (vacating the trial court’s order of dismissal for lack of subject matter jurisdiction over an action for patent infringement).
236. 541 F.3d 1373, 88 U.S.P.Q.2d (BNA) 1060 (Fed. Cir. 2008).
237. Id. at 1375, 88 U.S.P.Q.2d (BNA) at 1061.
238. Id. at 1375–76, 88 U.S.P.Q.2d (BNA) at 1061–62.
239. Id. at 1376, 88 U.S.P.Q.2d (BNA) at 1062.
240. Id., 88 U.S.P.Q.2d (BNA) at 1062.
241. See Arbaugh v. Y & H Corp., 546 U.S. 500, 515–16 (2006) (“Whether a disputed matter concerns jurisdiction or the merits (or occasionally both) is sometimes a close question.”) (quoting Da Silva v. Kinsho Int’l Corp., 229 F.3d 358, 361 (2d Cir. 2000)).
242. Id. at 515–16.
addressed whether failure to prove that allegedly infringing activity took place in the United States divests the federal courts of subject matter jurisdiction over a patent infringement action. The Canadian defendant in *Litecubes*, GlowProducts.com (“GlowProducts”), imported novelty items from Chinese manufacturers for sale in North America, including the United States. The suit proceeded to trial, at which point the jury found GlowProducts liable for willful infringement.

GlowProducts subsequently filed a motion to dismiss, arguing that its acts of infringement had occurred outside the United States and that the court therefore lacked subject matter jurisdiction. The district court accepted GlowProducts’ characterization of the issue as jurisdictional, but denied the motion on the ground that sufficient evidence supported the finding that GlowProducts had imported the products into the United States.

The Federal Circuit subsequently affirmed the denial of the motion to dismiss, but on different grounds than those that the district court found persuasive. Noting that “[t]here is no absolute rule prohibiting the extraterritorial reach of federal statutes,” the Federal Circuit explained that “[w]hether Congress did extend any particular statute to reach extraterritorial activity is simply a question of statutory interpretation.” Under the rule laid out by the Arbaugh Court, however, only those facts clearly identified by Congress as creating a threshold limitation on a statute’s scope count as jurisdictional. Congress had not so identified the location requirement of 35 U.S.C. § 271. Accordingly, the location of an allegedly infringing act is properly considered an element of the claim for patent infringement rather than a prerequisite for subject matter jurisdiction.

244. 523 F.3d 1353, 86 U.S.P.Q.2d (BNA) 1753 (Fed. Cir. 2008).
245. Id. at 1357, 86 U.S.P.Q.2d (BNA) at 1755.
246. Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1756.
247. Id. at 1359, 86 U.S.P.Q.2d (BNA) at 1756.
248. Id., 86 U.S.P.Q.2d (BNA) at 1756. For GlowProducts to be liable for infringement under 35 U.S.C. § 271(a) (2006), it had to have been shown to have either imported into the United States or made, used, offered for sale, or sold LiteCube’s invention in the United States. *Litecubes*, 523 F.3d at 1360, 86 U.S.P.Q.2d (BNA) at 1757.
249. Id. at 1359, 86 U.S.P.Q.2d (BNA) at 1756–57.
250. Id. at 1366, 86 U.S.P.Q.2d (BNA) at 1762.
251. Id. at 1363, 86 U.S.P.Q.2d (BNA) at 1760.
254. Id., 86 U.S.P.Q.2d (BNA) at 1759–60. Although Arbaugh provided a bright line answer to this issue, the Federal Circuit nevertheless engaged in an extensive discussion of “whether there is something unique about a limitation that determines
C. Declaratory Judgments

1. The Federal Circuit’s declaratory judgment precedents post-MedImmune

In 2008, the Federal Circuit issued several decisions applying the guidance set forth by the Supreme Court in MedImmune, Inc. v. Genentech, Inc. In MedImmune, the Supreme Court rejected the Federal Circuit’s “reasonable apprehension of suit” test and “set forth the correct standard for jurisdiction over a declaratory judgment action.” In order for a court to have jurisdiction over a declaratory judgment, “the facts alleged, under all the circumstances, [must] show that there is a substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.” “In short, ‘all the circumstances’ must show a controversy.”

In Micron Technology, Inc. v. MOSAID Technologies, Inc., the Federal Circuit applied this “all the circumstances” test and reversed the district court’s grant of MOSAID’s motion to dismiss for lack of subject matter jurisdiction over Micron’s declaratory judgment action. Micron, a manufacturer of dynamic random access memory (“DRAM”), and its three largest competitors accounted for more than seventy-five percent of worldwide DRAM sales. Several years before Micron filed its declaratory judgment complaint, MOSAID, who owned several patents in the DRAM field, sent Micron a number of warning letters strongly encouraging Micron to take a license to these patents. When neither Micron nor its competitors took MOSAID up on its offer, MOSAID brought separate suits against two of Micron’s three major DRAM competitors and became involved in a declaratory judgment action with the third. All three cases settled when the DRAM manufacturers entered into licensing agreements

256. Id. at 132 n.11, 81 U.S.P.Q.2d (BNA) at 1232 n.11.
257. Micron Tech., Inc. v. MOSAID Techs., Inc., 518 F.3d 897, 901, 86 U.S.P.Q.2d (BNA) 1038, 1041 (Fed. Cir. 2008); see also MedImmune, 549 U.S. at 127, 81 U.S.P.Q.2d (BNA) at 1229 (establishing a standard for declaratory judgment).
258. MedImmune, 549 U.S. at 127, 81 U.S.P.Q.2d (BNA) at 1229; see also Micron, 518 F.3d at 901, 86 U.S.P.Q.2d (BNA) at 1041 (confirming the standard established in MedImmune requiring that “all the circumstances” show a controversy).
259. Micron, 518 F.3d at 901, 86 U.S.P.Q.2d (BNA) at 1041.
260. Id. at 899, 86 U.S.P.Q.2d (BNA) at 1039.
261. Id., 86 U.S.P.Q.2d (BNA) at 1039.
262. Id., 86 U.S.P.Q.2d (BNA) at 1039.
263. Id., 86 U.S.P.Q.2d (BNA) at 1039.
264. Id., 86 U.S.P.Q.2d (BNA) at 1039.
with MOSAID. MOSAID subsequently announced during an analyst conference call “its intent to return to court again soon on these patents promising to be ‘unrelenting in the assertion of [its] patent portfolio.’”

Micron, the only remaining major DRAM manufacturer left for MOSAID to target, thereafter filed a declaratory judgment action seeking a declaration of non-infringement. The district court, in an order issued prior to the Supreme Court’s decision in MedImmune, found no reasonable apprehension of suit and dismissed the action.

On appeal, the Federal Circuit applied the standard laid out in MedImmune and determined there was in fact an actual controversy between the parties: MOSAID had threatened Micron, had sued each of the other leading DRAM chip manufacturers, and had recently made public statements that it intended to continue an aggressive litigation strategy.

In Cat Tech LLC v. Tubemaster, Inc., the Federal Circuit resolved a question it determined was left open in MedImmune. Prior to MedImmune, the Federal Circuit applied a two-prong test to determine the existence of declaratory judgment authority. Under this test:

There must be both (1) an explicit threat or other action by the patentee which creates a reasonable apprehension on the part of the declaratory judgment plaintiff that it will face an infringement suit, and (2) present activity by the declaratory judgment plaintiff which could constitute infringement, or concrete steps taken by the declaratory judgment plaintiff with the intent to conduct such activity.

Rather than viewing MedImmune as rejecting entirely this two-prong approach, the Cat Tech court found that only the first prong—whether there is a reasonable apprehension of suit—had been overruled. The second prong, “whether there has been meaningful preparation to conduct potentially infringing activity,” continues to

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265. Id., 86 U.S.P.Q.2d (BNA) at 1039.
266. Id. at 900, 86 U.S.P.Q.2d (BNA) at 1040.
267. Id., 86 U.S.P.Q.2d (BNA) at 1040.
268. Id. at 900, 86 U.S.P.Q.2d (BNA) at 1040.
269. Id. at 901, 86 U.S.P.Q.2d (BNA) at 1041.
272. Id. at 879, 87 U.S.P.Q.2d (BNA) at 1070 (citing Teva Pharms. USA, Inc. v. Pfizer Inc., 395 F.3d 1324, 1332, 74 U.S.P.Q.2d (BNA) 1088, 1093 (Fed. Cir. 2005)).
273. Teva Pharms., 395 F.3d at 1332, 74 U.S.P.Q.2d (BNA) at 1093. But see id. at 1339–42, 74 U.S.P.Q.2d 1088, 1099–101 (Mayer, J., dissenting) (arguing that the Federal Circuit had never before required this test to be satisfied in order for there to be a justiciable case or controversy).
be an “important element” in determining whether jurisdiction exists to issue a declaratory judgment. The Cat Tech court confirmed that MedImmune requires a court to consider the “totality of circumstances,” but concluded that “[i]f a declaratory judgment plaintiff has not taken significant, concrete steps to conduct infringing activity, the dispute is neither ‘immediate’ nor ‘real’ and the requirements for justiciability have not been met.”

The court accordingly asked “whether there had been ‘meaningful preparation’ to conduct potentially infringing activity,” and concluded there had been.

First, Tubemaster had taken all possible steps towards manufacturing the devices at issue, generating AutoCAD drawings for each device to the point that the devices were ready for production once a customer order was received. Accordingly, the constitutional requirement of “immediacy” was met.

Second, the court noted that whether a patent dispute is “real” “is often related to the extent to which the technology in question is ‘substantially fixed’ as opposed to ‘fluid and indeterminate’ at the time declaratory relief is sought.” Because Tubemaster had taken significant, concrete steps to conduct infringing activity to the point that it did not expect to make “substantial modifications” to its designs after the beginning of production, the court found the reality requirement satisfied.

Cat Tech nevertheless argued that because Tubemaster had not yet disclosed or advertised the products to potential customers, no actual controversy yet existed. The Federal Circuit disagreed. Although a lack of such activity may indicate a lack of “immediacy,” the court stated that MedImmune commands that all the circumstances be considered when making a justiciability determination.

Pursuant to this command, “[w]here, as here, there is cogent evidence that a

275. Id. at 880, 87 U.S.P.Q.2d (BNA) at 1071.
276. Id., 87 U.S.P.Q.2d (BNA) at 1071.
278. Id. at 881–83, 87 U.S.P.Q.2d (BNA) at 1072–73.
279. Because every order required further customization, Tubemaster could go no further with its preparation. Id. at 881–82, 87 U.S.P.Q.2d (BNA) at 1072.
280. Cat Tech, 538 F.3d at 882, 87 U.S.P.Q.2d (BNA) at 1072–73.
281. Id. at 882, 87 U.S.P.Q.2d (BNA) at 1073.
282. Id., 87 U.S.P.Q.2d (BNA) at 1073.
283. Id. at 883, 87 U.S.P.Q.2d (BNA) at 1073.
declaratory plaintiff has made meaningful preparation to conduct potentially infringing activity, a showing that the plaintiff has prepared draft sales literature or otherwise disclosed its products to potential customers is not an indispensable prerequisite. The court therefore affirmed the district court’s grant of declaratory judgment.

2. Mootness and FDA-listed drugs covered by multiple patents

The Federal Circuit further clarified in Caraco Pharmaceutical Laboratories, Ltd. v. Forest Laboratories, Inc. that the issues of standing, ripeness, and mootness would guide its application of the all-the-circumstances test in the pharmaceutical context. In Caraco, Forest Labs, the manufacturer of the brand name drug Lexapro, brought suit against generic drug manufacturer Caraco for infringement of one of two patents covering Lexapro after Caraco filed an abbreviated new drug application (“ANDA”) for Food and Drug Administration (“FDA”) approval of a generic version of the drug. Caraco subsequently sued Forest for a declaratory judgment that the second patent covering Lexapro was either unenforceable or not infringed. In response, Forest granted to Caraco a covenant not to sue for infringement of the second patent at issue, but refused to concede that the patent was invalid or not infringed by Caraco’s proposed drug. The district court dismissed the suit on the ground that because there was a covenant not to sue “there’s not going to be any loss, there’s no threat of lawsuit.”

On appeal, the Federal Circuit applied the all-the-circumstances test and found an actual controversy existed between Caraco and Forest. Although the covenant not to sue eliminated any reasonable apprehension of suit on the patent, it did not render Caraco’s declaratory judgment action moot because such an agreement did not remove the regulatory barriers preventing Caraco from marketing its generic version of Lexapro.

286. Id. at 874, 87 U.S.P.Q.2d (BNA) at 1067.
287. 527 F.3d 1278, 86 U.S.P.Q.2d (BNA) 1289 (Fed. Cir. 2008).
289. Id. at 1288, 86 U.S.P.Q.2d (BNA) at 1295.
290. Id., 86 U.S.P.Q.2d (BNA) at 1295.
291. Id. at 1296.
292. Id. at 1296 (quoting Transcript of Hearing on Motion to Dismiss at 31, Caraco, 527 F.3d 1278, 86 U.S.P.Q.2d (BNA) 1289 (No. 2007-1404) (emphasis added)).
293. Caraco, 527 F.3d at 1282, 86 U.S.P.Q.2d (BNA) at 1290.
294. Id. at 1297, 86 U.S.P.Q.2d (BNA) at 1301.
Under the Hatch-Waxman Act, which governs the FDA’s . . . approval of new and generic drugs, Caraco could only begin to market its generic version of Lexapro after either (1) the patents covering the drug expired or (2) all the patents covering Lexapro were found either invalid or not infringed by the ANDA.

Accordingly, Forest’s covenant not to sue did not eliminate the controversy between the parties and the action therefore presented an ongoing Article III case or controversy. Indeed, if courts permitted brand name drug manufacturers to moot claims of patent invalidity through covenants not to sue, a manufacturer could, in certain circumstances, prevent its competitors from entering the market until after the potentially invalid patents expired.

The Federal Circuit further clarified Caraco in Janssen Pharmaceuticals, N.V. v. Apotex, Inc., a case which the Federal Circuit acknowledged presented similar facts. Like the defendant in Caraco, the plaintiff in Janssen brought suit against a generic manufacturer, Apotex, for infringement of one of three patents covering a brand name drug, Risperdal. Apotex subsequently sought a declaratory judgment that the remaining two patents covering Risperdal were either invalid or not infringed. Unlike in Caraco, however, Apotex stipulated that the patent on which Janssen

297. If Caraco had been the first manufacturer to file an ANDA related to Lexapro, it could have begun to market its drug if it successfully defended against Forest’s pending patent infringement suit. Id. at 1287, 86 U.S.P.Q.2d (BNA) at 1294. Under the Hatch-Waxman Act, the first ANDA filer alleging invalidity or noninfringement of the patents covering a drug will obtain a 180-day period of exclusivity if the allegations prove true. See 21 U.S.C. § 355(j)(2) (2006). Another manufacturer, however, had both filed an ANDA before Caraco and lost the resulting patent infringement suit, resulting in an injunction barring the manufacturer from marketing its Lexapro bioequivalent. Caraco, 527 F.3d at 1286–87, 86 U.S.P.Q.2d (BNA) at 1293–94. Accordingly, the provisions of the Hatch-Waxman Act prevented Caraco from marketing its drug unless it obtained a court judgment of invalidity or noninfringement. Id. at 1287, 86 U.S.P.Q.2d (BNA) at 1295.
298. Caraco, 527 F.3d at 1297, 86 U.S.P.Q.2d (BNA) at 1301.
299. Id. at 1284–85, 86 U.S.P.Q.2d (BNA) at 1292–93.
301. Id. at 1360, 88 U.S.P.Q.2d (BNA) at 1085 (“We agree with the parties that if Apotex had not stipulated to the validity of the ‘663 patent, then Caraco would have been controlling.”); id. at 1361, 88 U.S.P.Q.2d (BNA) at 1085 (“The key difference between Caraco and this case is that the harm that gave rise to the jurisdiction over the declaratory judgment claim in Caraco ceased to exist once Apotex stipulated to the validity, infringement, and enforceability of the ‘663 patent.”).
302. Id. at 1357–58, 88 U.S.P.Q.2d (BNA) at 1083.
303. Id. at 1358, 88 U.S.P.Q.2d (BNA) at 1083.
sued was valid and enforceable. Janssen moved the court to dismiss Apotex’s counterclaims for lack of jurisdiction, and the district court granted the motion. The Federal Circuit affirmed. According to the Federal Circuit, Apotex’s admission that one of the three patents covering Risperdal was valid was sufficient to differentiate the case from Caraco. Because Apotex, unlike Caraco, “stipulated to the validity, infringement, and enforceability of [one] patent . . . . Apotex cannot claim that at the time of the district court’s dismissal it was being excluded from selling a noninfringing product by an invalid patent.” Even if Apotex succeeded on its declaratory judgment claims, it would still be unable to obtain FDA approval until after the remaining patent expired.

3. Sufficient injury

Although MedImmune eliminated the Federal Circuit’s “reasonable apprehension of suit” requirement for establishing declaratory judgment jurisdiction, it did not change the court’s “long-standing rule that the existence of a patent is not sufficient to establish declaratory judgment jurisdiction.” In Prasco, LLC v. Medicis Pharmaceutical Corp., the Federal Circuit affirmed the dismissal of a declaratory judgment action brought by Prasco against a competitor who had previously brought an infringement suit against it based on an unrelated patent. Relying on both Cat Tech and Caraco, the court emphasized that whether an Article III controversy exists cannot be determined through the application of a bright-line rule, but instead requires an analysis of particular facts of the case, including an inquiry into standing, ripeness, and a lack of mootness.

The court proceeded to provide three examples of ways a patentee can cause an injury sufficient to establish a justiciable controversy: by (1) “creating a reasonable apprehension of an infringement suit”; (2) “demanding the right to royalty payments”; or (3) “creating a
barrier to the regulatory approval of a product that is necessary for marketing."³¹⁴

In Prasco, the patentee had taken no actions at all related to the product at issue.³¹⁵ Accordingly, the Federal Circuit affirmed the trial court's conclusion that Prasco failed to allege "a controversy of sufficient 'immediacy and reality' to create a justiciable controversy."³¹⁶

D. Appellate Jurisdiction and Reviewability of Judgments

The Federal Circuit has exclusive jurisdiction over any appeal from a final decision of a federal district court if the district court's jurisdiction was based either in whole or in part on 28 U.S.C. § 1338.³¹⁷

Inherent in the court's appellate role is the traditional power to issue a writ of mandamus in the aid of its appellate jurisdiction.³¹⁸ The Federal Circuit therefore has jurisdiction to hear and decide a petition for a writ of mandamus in any case that falls within the purview of § 1338.³¹⁹

The remedy of mandamus, however, "is available only in extraordinary situations to correct a clear abuse of discretion or usurpation of judicial power."³²⁰ Accordingly, a party seeking the writ "bears the burden of proving that it has no other means of attaining the relief desired and that the right to issuance of the writ is 'clear and indisputable.'"³²¹ Because no other means of attaining the relief desired must be available, the Federal Circuit has emphasized that it may deny the writ even if the request raises an issue that would otherwise qualify as reversible error on direct appeal.³²²

³¹⁴ Id. at 1339, 87 U.S.P.Q.2d (BNA) at 1680–81.
³¹⁵ Id. at 1340, 87 U.S.P.Q.2d (BNA) at 1681.
³¹⁶ Id. at 1338, 87 U.S.P.Q.2d (BNA) at 1679.
³¹⁷ The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction . . . of an appeal from a final decision of a district court of the United States . . . if the jurisdiction of that court was based, in whole or in part, on section 1338 of this title . . . .
³²⁰ Id., 81 U.S.P.Q.2d (BNA) at 2001 (quoting In re Newman, 782 F.2d 971, 973, 228 U.S.P.Q (BNA) 450, 452 (Fed. Cir. 1986)).
In In re Roche Molecular Systems Inc., Roche filed a petition with the Federal Circuit seeking a writ of mandamus directing the district court to enter judgment in its favor. Roche argued the writ was warranted because the plaintiff lacked standing to sue for infringement of the patent at issue. Such an allegation, however, clearly can be, and often is, addressed on appeal. Accordingly, the Federal Circuit denied the petition, finding that Roche had failed to show that the relief it sought could not be obtained after entry of final judgment. Judge Newman dissented, arguing that the writ was warranted because “the posture of the dispute is significantly changed” by the purported error below and to continue the litigation under this purported error “is as inappropriate as it is unnecessary.”

Of course, an entry of final judgment does not always ensure the Federal Circuit can address an issue raised on appeal. For example, a party wishing to appeal a decision of the district court must file a notice of appeal within the period specified by the Federal Rules of Appellate Procedure. Failure to file a document properly styled as a “notice of appeal,” however, will not always be fatal to a party’s appeal. For example, in International Rectifiers Corp. v. IXYS Corp., the appellant failed to timely file a properly styled notice of appeal, filing instead a motion to stay the permanent injunction pending appeal. The Federal Circuit took the appeal, but first addressed the threshold question of whether it had appellate jurisdiction. Relying on Smith v. Barry, the Federal Circuit looked to whether the document filed provided the notice required by Rule 3 of the Federal

323. Id. at 1003, 85 U.S.P.Q.2d (BNA) at 1843.
324. Id. at 1004, 85 U.S.P.Q.2d (BNA) at 1843.
325. Id., 85 U.S.P.Q.2d (BNA) at 1843.
326. See, e.g., Cent. Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Solutions, P.C., 482 F.3d 1347, 82 U.S.P.Q.2d (BNA) 1293 (Fed. Cir. 2007) (addressing on appeal the alleged infringer’s allegation that patentees lacked standing because the inventor failed to properly execute a required license). But see Sky Techs. LLC v. SAP AG, No. 2:06-CV-440, 2008 WL 4491894, at *1 (Fed. Cir. Sept. 10, 2008) (granting permission to appeal an order that denied the defendant’s motion to dismiss for lack of standing where the district court certified the order for permissive appeal on the ground that an immediate appeal “may materially advance the ultimate termination of the litigation”).
327. In re Roche, 516 F.3d at 1004–05, 85 U.S.P.Q.2d (BNA) at 1844.
328. Id. at 1009, 85 U.S.P.Q.2d (BNA) at 1847 (Newman, J., dissenting).
329. See FED. R. APP. P. 4(a)(1)(A) (“In a civil case, except as provided in Rules 4(a)(1)(B), 4(a)(4), and 4(c), the notice of appeal required by Rule 3 must be filed with the district clerk within 30 days after the judgment or order appealed from is entered.”).
331. Id. at 1357, 85 U.S.P.Q.2d (BNA) at 1910.
Rules of Appellate Procedure.334 Because the appellant’s document (a) specified the party or parties taking the appeal, (b) designated the judgment being appealed, and (c) named the court to which the appeal was being taken, the court found the document met the requirements of Rule 3, construed the motion as a notice of appeal, and proceeded to decide the merits of the appeal.335

In iLOR, LLC v. Google, Inc.,336 the Federal Circuit considered a matter of first impression: whether a district court’s recitation of the “no just cause for delay” standard of Federal Rule of Civil Procedure 54(b) as to one or more, but not all, claims is sufficient to certify an issue for immediate appeal. The court concluded that it is not.337 iLOR had sued Google for infringement of its patent and moved for a preliminary injunction, and Google had filed counterclaims seeking a declaratory judgment of non-infringement, invalidity, and unenforceability of the patent.338 The district court ultimately granted Google’s motion for summary judgment of non-infringement and denied iLOR’s motion for preliminary injunction.339 In so doing, it entered an Order which stated, “[T]his Order is FINAL AND APPEALABLE and THERE IS NO JUST CAUSE FOR DELAY.”340

On appeal, the Federal Circuit held that the district court’s judgment did not dispose of all of Google’s counterclaims.341 Accordingly, the question of whether the district court had properly certified the decision for immediate appeal remained.342 The district court had not cited Rule 54(b) and had not described any circumstances justifying immediate appeal.343 Therefore, notwithstanding the district court’s use of the “no just reason for delay” language of Rule 54(b), the Federal Circuit adopted the “consensus view” that “bare recitation of the ‘no just reason for delay’ standard of Rule 54(b) is not sufficient, by itself, to properly certify an issue for immediate appeal.”344

337. Id. at 1071, 89 U.S.P.Q.2d (BNA) at 1099.
338. Id. at 1069, 89 U.S.P.Q.2d (BNA) at 1098.
339. Id. at 1070, 89 U.S.P.Q.2d (BNA) at 1098.
341. Id. at 1072, 89 U.S.P.Q.2d (BNA) at 1100.
342. Id., 89 U.S.P.Q.2d (BNA) at 1100.
343. Id. at 1073, 89 U.S.P.Q.2d (BNA) at 1100-01.
344. Id. at 1072, 89 U.S.P.Q.2d (BNA) at 1100.
Likewise, a party may be barred from appealing a judgment by the trial court if the party has prevailed below. In Symantec Corp. v. Computer Associates International, Inc., the Federal Circuit reiterated the rule that “a properly filed cross-appeal requires that, upon acceptance of appellee’s argument, our determination would result in a reversal or modification of the judgment rather than an affirmance.” The district court had granted Computer Associates ("CA") summary judgment of non-infringement. When Symantec appealed, CA cross-appealed the trial court’s finding that the doctrine of laches did not bar the scope of Symantec’s potential recovery in the event that the court had found CA to have infringed. Because acceptance of CA’s argument would have had no effect on the district court’s judgment of non-infringement, the Federal Circuit dismissed the cross-appeal as improper. The court proceeded to review CA’s mis-styled laches arguments as an alternative ground for sustaining the judgment.

The Federal Circuit may also find its ability to review the final judgment of the trial court restricted where the dispute, although an actual case or controversy below, becomes moot by the time of appeal. Accordingly, “[w]here the controversy between the parties has ended, the case becomes moot and will be dismissed, ‘however convenient it might be to have decided the question’ for future cases.” For example, in Yingbin-Nature (Guangdong) Wood Industry Co. v. International Trade Commission, the International Trade Commission ("ITC") had determined that the appellants' products infringed two separate patents and that this infringement justified a general exclusion order barring importation of the products into the United States. The appellants sought Federal Circuit review of the ITC’s decision, but only as to a subset of the overall claims it had been found to have infringed. Given that these unappealed

346. Id. at 1279, 86 U.S.P.Q.2d (BNA) at 1449.
347. Id. at 1294, 86 U.S.P.Q.2d (BNA) at 1457-58.
348. Id., 86 U.S.P.Q.2d (BNA) at 1458.
349. Id., 86 U.S.P.Q.2d (BNA) at 1458.
350. Id., 86 U.S.P.Q.2d (BNA) at 1458.
351. Id., 86 U.S.P.Q.2d (BNA) at 1458.
353. Id. at 1322, 87 U.S.P.Q.2d (BNA) at 1590.
354. Id. at 1325, 87 U.S.P.Q.2d (BNA) at 1592.
355. Id. at 1330, 87 U.S.P.Q.2d (BNA) at 1595.
findings of infringement, standing alone, supported the general exclusion order, the court asked the parties to prepare responses on the issue of mootness. After considering the oral arguments, the Federal Circuit concluded that a live controversy still existed. Because the patents-in-suit bore different dates of expiration and the finding of infringement challenged on appeal involved a later-expiring patent, a reversal of the ITC’s decision would allow the appellants to begin importing their products at an earlier date. Accordingly, this portion of the appeal was not moot.

Even if a judgment is final and the resulting appeal is timely filed and still presents a live controversy, the court may nevertheless be unable to address the substantive issues on appeal. In Jang v. Boston Scientific Corp., the trial court adopted a consent judgment proposed by the parties after a claim construction order adverse to the plaintiff had been issued. As part of the stipulated judgment, the parties agreed the plaintiff could not prove infringement under the claim construction adopted by the court, but preserved the plaintiff’s right to appeal the court’s construction. On appeal, the Federal Circuit found itself unable to address the substantive issues presented by the parties. Although the court was willing and able to review “stipulated judgments based on claim construction when the judgments were entered with the express purpose of obtaining appellate review of the claim construction,” any such judgment “must satisfy the same standards of appellate jurisdiction as any other judgment entered by the district court.” Accordingly, a stipulated judgment must allow the court “to ascertain the basis for the judgment challenged on appeal.”

The consent judgment at issue in Jang suffered from ambiguities that prevented it from meeting this standard. First, the parties had failed to identify which of the multiple claim construction rulings
affected the issue of infringement. Without such an identification, the Federal Circuit concluded, the court risked issuing an advisory opinion that did not actually address the infringement controversy between the parties. Second, the parties failed to provide any factual context for the claim construction issues presented. Because “a remand for clarification is appropriate where a judgment is ambiguous,” the Federal Circuit remanded to the district court for further clarification of these issues.

E. Personal Jurisdiction

Even if the court has jurisdiction over the subject matter of the case, the court may not exercise this power over a particular party unless two criteria are met: (1) “jurisdiction must exist under the forum state’s long-arm statute”; and (2) “the assertion of personal jurisdiction must be consistent with the limitations of the due process clause.” The first inquiry is controlled by the law of the forum while the second inquiry is guided by federal law.

In Medical Solutions, Inc. v. C Change Surgical LLC, the Federal Circuit was required to decide whether activities at a trade show constituted a “use” under 35 U.S.C. § 271(a) such that personal jurisdiction would be proper under the District of Columbia’s long-arm statute. The court explained that whether a patented item had been “used” is a highly case-specific inquiry, but that “[t]he ordinary meaning of ‘use’” is “to put into action or service.” After noting that a number of trial courts had held that “the mere demonstration or display of an accused product, even in an obviously commercial atmosphere” is not an act of infringement for purposes of section

367. Id. at 1336, 87 U.S.P.Q.2d (BNA) at 1463.
368. Id. at 1336–37, 87 U.S.P.Q.2d (BNA) at 1463–64.
369. Id. at 1337, 87 U.S.P.Q.2d (BNA) at 1464.
370. Id. at 1335, 87 U.S.P.Q.2d (BNA) at 1463.
371. Id. at 1331, 87 U.S.P.Q.2d (BNA) at 1460.
373. Id. at 1139, 88 U.S.P.Q.2d (BNA) at 1277.
374. Id. at 1136, 88 U.S.P.Q.2d (BNA) at 1275.
375. 35 U.S.C. § 271(a) (2006) (“Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.”).
377. Id. at 1141, 88 U.S.P.Q.2d (BNA) at 1278 (quoting NTP, Inc. v. Research In Motion, Ltd., 418 F.3d 1282, 1317, 75 U.S.P.Q.2d (BNA) 1763, 1789 (Fed. Cir. 2005)).
the court affirmed the trial court’s finding that the display and demonstration of aspects of the accused item did not amount to a “use” under § 271. Accordingly, personal jurisdiction was lacking, and the trial court had properly dismissed the suit.

The Federal Circuit also found personal jurisdiction lacking in Avocent Huntsville Corp. v. Aten International Co., Ltd. In that case, Avocent, an Alabama developer of computer hardware devices, filed a declaratory judgment action against Aten International, a Taiwanese corporation with a California subsidiary. The parties did not dispute that Aten International’s products were available for sale in Alabama. Relying on that fact, Avocent contended that Aten International should be subject to personal jurisdiction in Alabama. The Federal Circuit affirmed the district court’s dismissal for lack of personal jurisdiction, finding that Avocent’s reliance on the availability of Aten International products in Alabama failed to establish that Aten International either “purposefully directed its activities at residents of the forum” or that Avocent’s suit “aris[es] out of or relate[d] to those activities,” as required to satisfy the specific personal jurisdiction standard.

The Federal Circuit did find sufficient contacts to support the exercise of specific jurisdiction over the defendants in Campbell Pet Co. v. Miale. In Campbell, the California defendants attended a convention in Seattle, Washington, where they demonstrated their patented products, offered them for sale, and succeeded in taking two orders from out-of-state residents during the course of the convention. While at the convention, the defendants confronted several of the plaintiff’s employees at the plaintiff’s booth and accused them of infringing the defendants’ patents. Shortly thereafter, Campbell filed suit in the United States District Court for the Western District of Washington seeking a declaratory judgment of

379. Id. at 1141, 88 U.S.P.Q.2d (BNA) at 1279.
380. Id. at 1142, 88 U.S.P.Q.2d (BNA) at 1279.
381. 552 F.3d 1324, 89 U.S.P.Q.2d (BNA) 1481 (Fed. Cir. 2008).
382. Id. at 1327, 89 U.S.P.Q. (BNA) at 1482.
383. Id., 89 U.S.P.Q. (BNA) at 1482.
384. Id. at 133789 U.S.P.Q. (BNA) at 1490.
385. Id. at 134, 89 U.S.P.Q. (BNA) at 1492 (quoting Breckenridge Pharmaceuticals, Inc. v. Metabolite Laboratories, Inc., 444 F.3d. 1356, 1363, 78 U.S.P.Q.2d 1581, 1585 (Fed. Cir. 2006)).
387. Id. at 881–82, 88 U.S.P.Q.2d (BNA) at 1254.
388. Id. at 882, 88 U.S.P.Q.2d (BNA) at 1254.
non-infringement.\textsuperscript{389} The trial court dismissed the suit, finding that neither general nor specific personal jurisdiction existed over the defendants.\textsuperscript{390}

In order for an exercise of personal jurisdiction to comport with the due process requirements of the U.S. Constitution, three factors must be satisfied: “(1) the non-resident defendant purposely do some act or consummate some transaction in the forum state, (2) the cause of action arise from or be connected with that transaction, and (3) the assumption of jurisdiction by the forum state not offend traditional notions of fair play and substantial justice.”\textsuperscript{391} Applying this analysis, the district court determined that, although the defendants had transacted business in the state, in light of the defendants’ conduct at the trade show, the claim of non-infringement was not sufficiently related to the transactions within the state.\textsuperscript{392} Because the defendants’ actions were “akin to submitting cease and desist letters,” an exercise of personal jurisdiction would offend traditional notions of fair play and substantial justice.\textsuperscript{393}

The Federal Circuit reversed and remanded.\textsuperscript{394} Although under Federal Circuit precedent, a “patentee’s act of sending letters to another state claiming infringement and threatening litigation is not sufficient to confer personal jurisdiction in that state,” the Federal Circuit held that the situation presented in Campbell involved sufficient additional conduct to support the exercise of jurisdiction.\textsuperscript{395} Specifically, the court found that defendants had done more than serve a verbal notice akin to a cease and desist letter: they attempted to have Campbell removed from the convention and had informed Campbell’s customers that Campbell’s products infringed the defendants’ patents.\textsuperscript{396}

\textbf{F. Res Judicata/Collateral Estoppel}

A party may also be barred from litigating a controversy where either claim preclusion or issue preclusion applies.\textsuperscript{397} “Under the doctrine of claim preclusion, ‘a judgment on the merits in a prior suit bars a second suit involving the same parties or their privies based on

\begin{itemize}
\item \textsuperscript{389} Id., 88 U.S.P.Q.2d (BNA) at 1254.
\item \textsuperscript{390} Id. at 882-83, 88 U.S.P.Q.2d (BNA) at 1254-55.
\item \textsuperscript{391} Id., 88 U.S.P.Q.2d (BNA) at 1255.
\item \textsuperscript{392} Id. at 883, 88 U.S.P.Q.2d (BNA) at 1255.
\item \textsuperscript{393} Id., 88 U.S.P.Q.2d (BNA) at 1255.
\item \textsuperscript{394} Id. at 889, 88 U.S.P.Q.2d (BNA) at 1260.
\item \textsuperscript{395} Id. at 885-86, 88 U.S.P.Q.2d (BNA) at 1257.
\item \textsuperscript{396} Id. at 886, 88 U.S.P.Q.2d (BNA) at 1258.
\item \textsuperscript{397} See generally 18 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & EDWARD H. COOPER, FEDERAL PRACTICE AND PROCEDURE § 4402, at 9 (2d ed. 2008).
\end{itemize}
the same cause of action.”

Issue preclusion, on the other hand, “bars the relitigation of issues actually adjudicated, and essential to the judgment, in a prior litigation between the same parties.” Both of these terms fall within the ambit of the doctrine of res judicata.

When a party raises claim preclusion as a bar to subsequent litigation, the Federal Circuit will review the district court’s determination under the law of the regional circuit in which the district court sits. In Acumed LLC v. Stryker Corp., the Federal Circuit applied the Ninth Circuit’s standard for claim preclusion in the context of a patent infringement suit. Under Ninth Circuit precedent, claim preclusion applies where: “(1) the same parties, or their privies, were involved in the prior litigation, (2) the prior litigation involved the same claim or cause of action as the later suit, and (3) the prior litigation was terminated by a final judgment on the merits.” In Acumed, the parties contested only the second of these three prongs—whether the prior litigation involved “the same claim or cause of action.”

In a previous lawsuit between the parties in which Stryker had been found to have infringed Acumed’s patent, Acumed learned during the discovery phase of the litigation that Stryker had another potentially infringing product currently in development. Stryker, however, had not yet begun to market or sell the product. After the close of fact discovery, Stryker began to market this second product. The court offered to allow Acumed to add an additional infringement claim to cover this new product, but warned Acumed that doing so would necessitate postponing the entire trial for up to one year. Acumed chose not to incur this delay and declined the court’s invitation.


399. WRIGHT ET AL., supra, note 397 (citing Kaspar Wire Works, Inc. v. Leco Eng’g & Mach., Inc., 575 F.2d 530, 535–536, 198 U.S.P.Q. (BNA) 513, 516 (5th Cir. 1978)).

400. Acumed, 525 F.3d at 1323 n.2, 86 U.S.P.Q.2d (BNA) at 1952 n.2.


403. Id. at 1323, 86 U.S.P.Q.2d (BNA) 1952.


406. Id. at 1322, 86 U.S.P.Q.2d (BNA) at 1951.


408. Id., 86 U.S.P.Q.2d (BNA) at 1951.


Two weeks after the first trial ended with a final judgment of infringement, Acumed initiated a second suit alleging Stryker’s newly developed product also infringed the patent. The district court presiding over this second case dismissed the action on the ground that this new claim was precluded by the prior judgment. According to the district court, the Federal Circuit’s patent-law-specific “essentially-the-same test” for claim preclusion only applies where a claim could not have been litigated in a prior action. The court therefore applied general principles of claim preclusion in reaching its decision.

On appeal, the Federal Circuit rejected this reading of its claim preclusion test and proceeded to explain the proper manner by which the preclusive effect of a previous suit is to be analyzed. In a patent infringement suit, the answer to whether two claims for patent infringement are identical for purposes of claim preclusion is an issue particular to patent law and therefore properly analyzed under Federal Circuit law. “In applying the doctrine of claim preclusion, [the Federal Circuit] is guided by the Restatement (Second) of Judgments,” which instructs a court to look to the transactional facts from which a claim arises. Interpreting Foster v. Hallco Manufacturing Co. and Halco Manufacturing Co. v. Foster, the court explained that “claim preclusion does not apply unless the accused device in the action before the court is ‘essentially the same’ as the accused device in a prior action.” Accused devices are ‘essentially the same’ where the differences between them are not ‘colorable’ or are ‘unrelated to the limitations in the claim of the patent.’ Furthermore, the court rejected the limitation the district court attempted to impose on the scope of this test, stating that “we find nothing in Halco or Foster that suggests that the essentially-the-same test does not apply where a claim could have been litigated in a prior

411. Id. at 1323, 86 U.S.P.Q.2d (BNA) at 1952.
412. Id. at 1325, 86 U.S.P.Q.2d (BNA) at 1954.
413. Id., 86 U.S.P.Q.2d (BNA) at 1953.
415. Id. at 1323, 86 U.S.P.Q.2d (BNA) at 1952.
416. Id. at 1323, 86 U.S.P.Q.2d (BNA) at 1952.
417. RESTATEMENT (SECOND) OF JUDGMENTS § 24 (1982) (defining a claim for purposes of claim preclusion by the transactional facts from which it arises).
419. 256 F.3d 1290, 1294, 59 U.S.P.Q.2d (BNA) 1346, 1348 (Fed. Cir. 2001).
Finding that the defendant had admitted that the two accused devices were not “essentially the same,” the Federal Circuit reversed the district court’s judgment and remanded for further proceedings.

In Roche Palo Alto LLC v. Apotex, Inc., the Federal Circuit, relying on Acumed, found the two purportedly infringing devices at issue to be “essentially the same” for purposes of claim preclusion. The devices at issue in the different litigation stages in Roche were two generic drug applications targeted at two different variations of Roche’s brand name drug. During the first phase of the litigation, the court rejected Apotex’s invalidity and unenforceability contentions and found that Apotex’s first generic drug infringed Roche’s drug patent. When Roche later brought suit against Apotex for infringement based on the second generic drug, Apotex sought to litigate the validity of the patent a second time, arguing that the generic drug formulations were sufficiently distinct to prevent claim preclusion from applying. Both the district court and the Federal Circuit disagreed. Although the drug formulations had differences, the Federal Circuit explained that in order for claim preclusion not to apply, the differences must be related to the claims of the patent at issue. Because the drug formulations failed to meet this standard, the defendant’s claims that the patent was unenforceable and invalid were barred by the doctrine of claim preclusion.

The Federal Circuit reiterated this rule in Nasalok Coating Corp. v. Nylok Corp., a case involving a trademark dispute. In explaining the “essentially the same” requirement, the court described the policy considerations driving this rule as follows. First, “the plaintiff and defendant should be treated equally as to res judicata. If the plaintiff would not be barred from bringing a second infringement suit, the

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422. Id. at 1326, 86 U.S.P.Q.2d (BNA) at 1954–55.
423. Id. at 1327, 86 U.S.P.Q.2d (BNA) at 1955.
426. Id. at 1375–76, 87 U.S.P.Q.2d (BNA) at 1309–10.
427. Id. at 1376, 87 U.S.P.Q.2d (BNA) at 1310.
428. Id., 87 U.S.P.Q.2d (BNA) at 1310.
429. Id. at 1380, 87 U.S.P.Q.2d (BNA) at 1313.
430. Id. at 1379, 87 U.S.P.Q.2d (BNA) at 1312.
431. Id. at 1381, 87 U.S.P.Q.2d (BNA) at 1313–14.
433. Id. at 1322, 86 U.S.P.Q.2d (BNA) at 1371.
434. Id. at 1327, 86 U.S.P.Q.2d (BNA) at 1374.
defendant also should not be precluded from challenging patent validity in the second suit.\textsuperscript{435} Second, “[a]t the time of an infringement suit, it will be difficult to anticipate the new products and future disputes that may later arise between the two parties.”\textsuperscript{436}

Claim preclusion may also apply where parties to a controversy previously chose to settle a dispute by contract.\textsuperscript{437} When such a settlement agreement involves patent issues, the Federal Circuit will have appellate jurisdiction.\textsuperscript{438} When reviewing a settlement agreement, the Federal Circuit does not apply its own law but instead applies state contract law to interpret the settlement agreement.\textsuperscript{439}

In Howmedica Osteonics Corp. v. Wright Medical Technology, Inc.,\textsuperscript{440} the parties previously entered into a settlement agreement to resolve a patent dispute.\textsuperscript{441} This settlement agreement contained a provision that, on its face, provided for release of liability and immunity from future suit to both parties.\textsuperscript{442} When Howmedica later brought suit against Wright for infringement of a patent not at issue in the prior suit, Wright raised the settlement agreement as a defense.\textsuperscript{443} According to Wright, the language of the settlement agreement was sufficiently broad to collaterally estop Howmedica from bringing any patent infringement suit against Wright that was ripe at the time the settlement agreement was executed.\textsuperscript{444} The Federal Circuit, applying state contract law, determined that the parties only intended the release provision to apply to matters actually in dispute at the time of the contract.\textsuperscript{445} Although the present matter was “ripe” at the time of the agreement and clearly fell within the text of the agreement, New Jersey contract law permits a court to consider extrinsic evidence when interpreting a contract provision.\textsuperscript{446} Accordingly, both the district court and the Federal Circuit proceeded to examine the

\begin{footnotesize}
\begin{enumerate}
\item[435.] Id., 86 U.S.P.Q.2d (BNA) at 1374.
\item[436.] Id., 86 U.S.P.Q.2d (BNA) at 1375.
\item[437.] See, e.g., Marvel Characters, Inc. v. Simon, 310 F.3d 280, 287, 64 U.S.P.Q.2d (BNA) 1891, 1896 (2d Cir. 2002) (explaining that where parties reach a settlement agreement and the court dismisses the dispute with prejudice, the judgment is final for purposes of res judicata).
\item[438.] See 28 U.S.C. § 1295(a)(1) (2006) (granting exclusive jurisdiction to the Court of Appeals for the Federal Circuit where the trial court’s jurisdiction was based in whole or in part on 28 U.S.C. § 1338(a)).
\item[440.] Id. at 1337, 88 U.S.P.Q.2d (BNA) at 1129.
\item[441.] Id. at 1341-42, 88 U.S.P.Q.2d (BNA) at 1131-32.
\item[442.] Id. at 1347-48, 88 U.S.P.Q.2d (BNA) at 1136.
\item[443.] Id. at 1347, 88 U.S.P.Q.2d (BNA) at 1136.
\item[444.] Id. at 1342-43, 88 U.S.P.Q.2d (BNA) at 1132.
\item[445.] Id. at 1350, 88 U.S.P.Q.2d (BNA) at 1138.
\item[446.] Id. at 1348, 88 U.S.P.Q.2d (BNA) at 1136.
\end{enumerate}
\end{footnotesize}
intent of the parties, evidenced by their negotiations and a contemporaneous settlement agreement covering a patent dispute in Massachusetts, to conclude that the parties did not intend the agreement to bar the present suit. As such, Howmedica was not collaterally estopped from initiating the suit.

G. Alternative Dispute Resolution

A court may also decline to exercise jurisdiction where the parties have contracted to have any dispute resolved by alternative dispute resolution. Because whether parties to an agreement have contractually bound themselves to settle a dispute through arbitration is not an issue unique to patent law, the Federal Circuit will apply the law of the regional circuit to decide the question.

In DataTreasury Corp. v. Wells Fargo & Co., the trial court refused to dismiss or stay litigation pending arbitration in a patent infringement action. In DataTreasury, one of Wells Fargo’s subsidiaries had previously entered into a patent license agreement with WMRe-Pin LLC (“WMR”). The license agreement compelled arbitration of any dispute or disagreement “between WMR and Wells Fargo” relating to the license. WMR subsequently assigned four patents to DataTreasury. When DataTreasury later brought suit against Wells Fargo for infringement of these patents, Wells Fargo moved to dismiss the suit, arguing that DataTreasury, as an assignee of WMR, was bound by the arbitration clause of the licensing agreement. The district court denied the motion, and the Federal Circuit affirmed. Reviewing the issue de novo, the Federal Circuit applied regional circuit law to determine the scope of the licensing agreement. Because the regional circuit itself would have analyzed the question of arbitrability under the state law governing the contract, the court looked to Minnesota law, which governed the

447. Id. at 1349–50, 88 U.S.P.Q.2d (BNA) at 1137-38.
448. Id. at 1350, 88 U.S.P.Q.2d (BNA) at 1138.
451. Id. at 1368, 86 U.S.P.Q.2d (BNA) at 1440.
452. Id. at 1371, 86 U.S.P.Q.2d (BNA) at 1442.
453. Id. at 1370, 86 U.S.P.Q.2d (BNA) at 1441.
454. Id. at 1370–71, 86 U.S.P.Q.2d (BNA) at 1441–42.
455. Id. at 1371, 86 U.S.P.Q.2d (BNA) at 1442.
456. Id., 86 U.S.P.Q.2d (BNA) at 1442.
457. Id. at 1373, 86 U.S.P.Q.2d (BNA) at 1444.
458. Id. at 1371, 86 U.S.P.Q.2d (BNA) at 1442.
contract. Under Minnesota law, a non-signatory to an arbitration agreement can only enforce an arbitration clause in a limited number of circumstances. Because Wells Fargo’s subsidiary, rather than Wells Fargo, had signed the agreement, and none of the exceptions to third party enforcement applied, the court determined that neither party could be compelled to submit to arbitration. Accordingly, the Federal Circuit affirmed the district court’s denial of the defendant’s motion to dismiss or stay pending arbitration.

III. CLAIM CONSTRUCTION

In defining the scope of a patented invention, the claims of a patent are generally given the meaning that they would have to one of “ordinary skill in the art.” In construing claim terms, courts may consider the claims themselves, the specification, the prosecution history, and extrinsic evidence.

A. Claims

1. Special claims

Special rules of construction may apply depending on the type of claim or where in the claim a term appears. For example, in TriMed, Inc. v. Stryker Corp., the Federal Circuit considered whether claim language contained a means-plus-function limitation under 35 U.S.C. § 112 para. 6. The claim term at issue read “said holes in said plate providing means for allowing the pin to slide axially therein but preventing compression across the fracture, and stabilizing said near end of the pin against displacement in the plane of the plate.” The Federal Circuit first noted that the “[u]se of the word ‘means’ creates a presumption that § 112 ¶ 6 applies.” The presumption is overcome if the claim, in addition to reciting functional language, also “recites sufficient structure for performing the described

459. Id. at 1372, 86 U.S.P.Q.2d (BNA) at 1442–43.
460. See id., 86 U.S.P.Q.2d (BNA) at 1443 (explaining that a non-signatory may be compelled to arbitrate under the theory of (1) incorporation by reference; (2) assumption; (3) agency; (4) veil-piercing/alter ego; (5) equitable estoppel; or (6) third-party beneficiary).
461. Id. at 1372–73, 86 U.S.P.Q.2d (BNA) at 1443–44.
462. Id. at 1373, 86 U.S.P.Q.2d (BNA) at 1444.
464. Id. at 1314, 75 U.S.P.Q.2d (BNA) at 1327.
465. 514 F.3d 1256, 85 U.S.P.Q.2d (BNA) 1787 (Fed. Cir. 2008)
467. Id. at 1259, 85 U.S.P.Q.2d (BNA) at 1788 (emphasis in original omitted).
468. Id., 85 U.S.P.Q.2d (BNA) at 1789.
functions in their entirety.” Sufficient structure exists if the claim “specifies the exact structure that performs the functions in question without need to resort to other portions of the specification or extrinsic evidence for an adequate understanding of the structure.”

The court identified the function specified in the claim to be “allowing a pin to slide axially through the pin plate while preventing compression across the bone fracture, and stabilizing the exposed end of the pin against displacement in the plane of the plate.” However, because there was a sufficient structure articulated in the claim—namely, holes—that performed the function, the presumption was overcome, and it was improper to invoke § 112 para. 6.

The Federal Circuit’s opinion in Symantec Corp. v. Computer Associates International, Inc. concerned construction of a term in the preamble of the claim. The patent at issue related to methods “of scanning for and detecting computer viruses.” The preamble of the claim read: “In a system for transferring digital data for storage in a computer storage medium, a method of screening the data as it is being transferred . . . comprising the steps of: . . . .” The court relied on Catalina Marketing International, Inc. v. Coolsavings.com, Inc., for guideposts in determining whether to construe the preamble as a limitation rather than as merely providing context for the claim. In Catalina, the Federal Circuit had held that a preamble “generally is not limiting” “[a]bsent clear reliance on the preamble in the prosecution history” to distinguish the prior art, or unless “it is necessary to provide antecedent basis for the body of the claim.” In Symantec, the Federal Circuit recognized that the “as it is being transferred” language had been added to the preamble during prosecution to overcome the prior art, but the court noted that the applicant had also concurrently added another term to the body of the claim to overcome the same prior art. Thus, there was no clear

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469. Id., 85 U.S.P.Q.2d (BNA) at 1789.
470. Id. at 1260, 85 U.S.P.Q.2d (BNA) at 1789.
471. Id., 85 U.S.P.Q.2d (BNA) at 1789.
472. Id., 85 U.S.P.Q.2d (BNA) at 1789.
474. Id. at 1288, 86 U.S.P.Q.2d (BNA) at 1453.
475. Id. at 1286, 86 U.S.P.Q.2d (BNA) at 1451.
476. Id., 86 U.S.P.Q.2d (BNA) at 1452.
479. Id. at 1288, 86 U.S.P.Q.2d (BNA) at 1454 (citing Catalina, 289 F.3d at 809, 62 U.S.P.Q.2d (BNA) at 1785).
480. Id. at 1289, 86 U.S.P.Q.2d (BNA) at 1454.
reliance “on the preamble” language to distinguish the prior art. The Federal Circuit was likewise not persuaded that the difference in language between the added preamble language and the added claim term meant that the preamble language created a distinct limitation. The court concluded that, in the absence of anything in the specification or prosecution history to indicate a different meaning, it should be assumed that preamble language is duplicative of, or provides context for, the claim term.

The Federal Circuit separately considered whether the term “computer system” should be limited to a single computer or should be read to include a network of multiple computers. Finding no support in the specification for a narrow construction of the term, the court construed the term according to its ordinary meaning to one of skill in the computer art, as demonstrated by a dictionary of computing terms. Notably, the Federal Circuit dismissed testimony by experts regarding how they would construe the term based on their reading of the specification. Such testimony was “unhelpful” because it gave only an expert’s understanding of the term and did not “identify the ‘accepted meaning in the field’ to one skilled in the art.”

**Howmedica Osteonics Corp. v. Wright Medical Technology, Inc.** presented a claim construction issue based on tension between a Jepson claim preamble and the body of the claim. A Jepson claim has a preamble (starting with the word “in”) and an improvement clause (starting with the phrase “an improvement comprising” or “the improvement comprising”). The preamble of a Jepson claim limits and defines the scope of the claim.

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482. Id., 86 U.S.P.Q.2d (BNA) at 1454.
483. Id., 86 U.S.P.Q.2d (BNA) at 1454.
484. Id. at 1290, 86 U.S.P.Q.2d (BNA) at 1455.
485. Id. at 1290–91, 86 U.S.P.Q.2d (BNA) at 1455–56.
486. Id., 86 U.S.P.Q.2d (BNA) at 1455.
487. Id. at 1291, 86 U.S.P.Q.2d (BNA) at 1455 (quoting Sinorgchem Co., Shandong v. Int’l Trade Comm’n, 511 F.3d 1132, 1137 n.3, 85 U.S.P.Q.2d (BNA) 1415, 1420 n.3 (Fed. Cir. 2007)).
489. 37 C.F.R. § 1.75(e) (2008); see MANUAL OF PATENT EXAMINING PROCEDURE § 608.01(m) (2008) (“The preamble of this form of claim is considered to positively and clearly include all the elements or steps recited therein as a part of the claimed combination.”); Pentec, Inc. v. Graphic Controls Corp., 776 F.2d 309, 315, 227 U.S.P.Q. (BNA) 766, 770 (Fed. Cir. 1985) (stating that when a Jepson claim is used the “claimed invention consists of the preamble in combination with the improvement”).
In construing a Jepson claim directed to an artificial knee prosthesis, the Federal Circuit considered tension between the preamble and the improvement clause.\[491.\] The preamble of the claim recited that there could be more than one "condylar element" meeting a certain "articulation requirement":

In a knee prosthesis . . . having a femoral component and a tibial component, . . . the femoral component including at least one condylar element for confronting and engaging the bearing member to accomplish articulation of the knee prosthesis throughout a range of flexion . . . .\[492.\]

The district court construed the claim to require that, in a femoral component with two condylar elements, both elements needed to meet the geometric requirement.\[494.\] The Federal Circuit agreed with the district court that the claim term "at least one" should be construed to encompass one or more condylar elements; however, a panel majority disagreed that when there are two condylar elements, both must meet the geometric requirement.\[495.\] The majority reasoned that if that was the intent, the "more natural way of drafting the claim language . . . would be to require ‘each condylar element,’ rather than ‘the condylar element’" to meet the geometric requirement.\[496.\] Because Wright offered no evidence that the claim should be interpreted by anything other than its plain language, the majority concluded that the claim required only that one condylar element meet the geometric requirement.\[497.\]

Judge Prost dissented, arguing that "the terms ‘at least one condylar element’ and ‘the condylar element’ are coextensive in scope", and thus, the two condylar elements must meet both the articulation and the geometric requirements.\[498.\]

\[491.\] Ho wmedica Osteonics Corp., 540 F.3d at 1344, 88 U.S.P.Q.2d (BNA) at 1133.
\[492.\] Id. at 1340, 88 U.S.P.Q.2d (BNA) at 1130 (emphasis altered).
\[493.\] Id., 88 U.S.P.Q.2d (BNA) at 1130 (emphasis altered).
\[494.\] Id. at 1343, 88 U.S.P.Q.2d (BNA) at 1132.
\[495.\] Id. at 1344–45, 88 U.S.P.Q.2d (BNA) at 1133–34.
\[496.\] Id. at 1344, 88 U.S.P.Q.2d (BNA) at 1133.
\[497.\] Id. at 1347, 88 U.S.P.Q.2d (BNA) at 1136.
\[498.\] Id. at 1352, 88 U.S.P.Q.2d (BNA) at 1139–40 (Prost, J., dissenting).
2. A or an

The indefinite article “a” or “an” is often construed to mean “one or more.” In Baldwin Graphic Systems, Inc. v. Siebert, Inc., the Federal Circuit considered construction of the term “a.” The patents at issue were systems for cleaning a printing press cylinder using strips of cleaning fabric. Although the district court had construed “a pre-soaked fabric roll” to mean “a single pre-soaked fabric roll,” the Federal Circuit disagreed. It held that construction of “a” or “an” to mean “one or more” is the general rule and that “exceptions to this rule are extremely limited.” Such exceptions arise only “where the language of the claims themselves, the specification, or the prosecution history necessitate[s] a departure from the rule.” Further, the court held that use of the terms “the” or “said” in subsequent claims to refer back to a claim term containing “a” or “an” does not change application of the rule, but rather “reinvokes that non-singular meaning.” “Because the initial indefinite article (‘a’) carries either a singular or plural meaning, any later reference to that same claim element merely reflects the same potential plurality.”

In contrast, in TiVo, Inc. v. EchoStar Communications Corp., the Federal Circuit construed the term “an” to mean only one. The dispute concerned patented digital video recorder (“DVR”) technology allowing television users to “time-shift” television signals by storing data relating to the transmissions on a hard disk in Motion Picture Expert Group (“MPEG”) format and subsequently transforming the data for replay. The claim at issue stated: “wherein said Output Section assembles said video and audio components into an MPEG stream.”

Although the Federal Circuit recognized the general rule that “a” or “an” should be construed to mean “one or more,” it noted that

499. See, e.g., KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1356, 55 U.S.P.Q.2d (BNA) 1835, 1839 (Fed. Cir. 2000) (noting that use of the article “a” is interpreted to limit a specific element to one only where the patentee manifests a clear intent to do so).
501. Id. at 1342, 85 U.S.P.Q.2d (BNA) at 1507.
502. Id. at 1340, 85 U.S.P.Q.2d (BNA) at 1504.
503. Id. at 1340, 1343, 85 U.S.P.Q.2d (BNA) at 1505, 1507.
504. Id. at 1342, 85 U.S.P.Q.2d (BNA) at 1507.
505. Id. at 1343, 85 U.S.P.Q.2d (BNA) at 1507.
506. Id. at 1342, 85 U.S.P.Q.2d (BNA) at 1507.
507. Id. at 1343, 85 U.S.P.Q.2d (BNA) at 1507.
509. Id. at 1303-04, 85 U.S.P.Q.2d (BNA) at 1811.
510. Id. at 1294, 85 U.S.P.Q.2d (BNA) at 1803-04.
511. Id. at 1303, 85 U.S.P.Q.2d (BNA) at 1810.
proper construction “depend[ed] heavily on the context of its use.” Relying on earlier and later limitations in the claim, the court concluded that, taken in context, the disputed claim term “clearly indicates that two separate components are assembled into a single stream, not that the video components are assembled into one stream and the audio components into a second stream.” Such a construction was further supported by the specification.

Similarly, in Cat Tech LLC v. Tubemaster, Inc., the Federal Circuit held that the precedent construing the article “a” to mean “one or more” was inapplicable to construction of the term “a spacing.” The term appeared in claims directed to a method for using loading devices to place catalyst particles into a multi-tube chemical reactor. The method required “positioning a plurality of discrete plates” to provide “a spacing” between plates, with the spacing having “a width not greater than the smallest dimension of a single particle to be loaded into the multi-tube reactor.” Cat Tech argued that the claim required only one (not all) of the spaces between the plurality of plates to be so narrow.

The Federal Circuit acknowledged that “the indefinite article ‘a’ has been construed to mean ‘one or more,’” but the court held that Cat Tech’s proposed construction would render the “a spacing” limitation meaningless for all practical purposes. Having just one such “narrow gap between plates would be an exercise in futility because whole catalyst particles would simply fall into the other, wider gaps between the plates.”

Such an interpretation could not be reconciled with certain dependent claims, which specified that the spaces were designed to block whole catalyst particles. Further, the court could find nothing in the specification to support such a construction and instead found that Cat Tech had disclaimed such a construction during prosecution of the parent application.

512. Id., 85 U.S.P.Q.2d (BNA) at 1811.
513. Id. at 1303, 85 U.S.P.Q.2d (BNA) at 1811.
514. Id. at 1304, 85 U.S.P.Q.2d (BNA) at 1811.
516. Id. at 886, 87 U.S.P.Q.2d (BNA) at 1976.
517. Id. at 874–75, 87 U.S.P.Q.2d (BNA) at 1067.
518. Id. at 875, 87 U.S.P.Q.2d (BNA) at 1067.
519. Id. at 884, 87 U.S.P.Q.2d (BNA) at 1074.
520. Id. at 886, 87 U.S.P.Q.2d (BNA) at 1076.
521. Id. at 885, 87 U.S.P.Q.2d (BNA) at 1075.
522. Id., 87 U.S.P.Q.2d (BNA) at 1075.
523. Id., 87 U.S.P.Q.2d (BNA) at 1075.
524. Id. at 885–86, 87 U.S.P.Q.2d (BNA) at 1075–76.
3. Plain and ordinary meaning

The Federal Circuit has with some frequency given claims their ordinary and customary meaning. For example, in Miken Composites, L.L.C. v. Wilson Sporting Goods Co.,\(^\text{525}\) the Federal Circuit adopted the ordinary and customary meaning in construing the term “insert” to mean “something inserted or intended for insertion.”\(^\text{526}\) The patentee contended that the limitation was “purely structural” and did not require any specific action—i.e., it was irrelevant “whether an insert is placed into a pre-existing frame or whether a frame is built around it.”\(^\text{527}\) The patentee argued that by requiring insertion, the district court had erred by “importing a process limitation into claims directed to a product.”\(^\text{528}\) The Federal Circuit rejected the patentee’s argument and affirmed the district court’s construction.\(^\text{529}\) The court noted that “nothing in the claims or specification indicates, explicitly or implicitly, that the inventor used the term in a novel way or intended to impart a novel meaning to it.”\(^\text{530}\) Although the Federal Circuit acknowledged that the ordinary meaning there had “functional attributes,” the court stated its construction did not read a process limitation into the claims but was simply a result of the fact that the claim “recites a structural component . . . with certain understood characteristics.”\(^\text{531}\)

In Baldwin, by contrast, the Federal Circuit held that a district court had gone beyond the ordinary meaning of claim language and had read a process limitation into an apparatus claim.\(^\text{532}\) The district court was presented with a claim term—“reduced air content cleaning fabric”—that appeared in both method claims and apparatus claims.\(^\text{533}\) The district court construed the term only once to mean “a fabric whose air content has been reduced by some method prior to being wound on a roll.”\(^\text{534}\) The Federal Circuit held that the district court erred.\(^\text{535}\) The apparatus and method claims were “directed toward different classes of patentable subject matter,” and the district court’s construction had “blurred an important difference” between

\(^{525}\) Id. at 1337, 85 U.S.P.Q.2d (BNA) 1503 (Fed. Cir. 2008).

\(^{526}\) Id. at 1338, 85 U.S.P.Q.2d (BNA) 1509 (quoting WEBSTER’S II NEW COLLEGE DICTIONARY (3d ed. 2005)).

\(^{527}\) Id., 85 U.S.P.Q.2d (BNA) at 1869.

\(^{528}\) Id., 85 U.S.P.Q.2d (BNA) at 1869.

\(^{529}\) Id. at 1338, 85 U.S.P.Q.2d (BNA) at 1870.

\(^{530}\) Id. at 1337, 85 U.S.P.Q.2d (BNA) at 1869.

\(^{531}\) Id. at 1337–38, 85 U.S.P.Q.2d (BNA) at 1870.

\(^{532}\) 512 F.3d 1338, 1346, 85 U.S.P.Q.2d (BNA) 1503, 1509 (Fed. Cir. 2008).

\(^{533}\) Id. at 1344, 85 U.S.P.Q.2d (BNA) at 1508.

\(^{534}\) Id., 85 U.S.P.Q.2d (BNA) at 1508.

\(^{535}\) Id. at 1346, 85 U.S.P.Q.2d (BNA) at 1509.
the two claims. The Federal Circuit held that the apparatus claims did not require any particular process or method and did not require the air content to be reduced prior to winding. The Federal Circuit also held that the district court erred by construing the method claim to require that air content be reduced prior to winding on the roll. "[A]lthough a method claim necessarily recites the steps of the method in a particular order, as a general rule the claim is not limited to performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order." Finding no support in the claims or specification for requiring air content reduction prior to winding and no clear disavowal of claim scope in the prosecution history, the Federal Circuit rejected the district court’s construction and remanded the case to the district court.

In DSW v. Shoe Pavilion, Inc., the Federal Circuit also applied the plain and ordinary meaning in interpreting claim language. The patent at issue in DSW was directed to a method for storing and displaying footwear for customer self-selection. One step of the method consisted of "selectively positioning a generally vertically disposed, horizontally movably positionable stack divider" between two stacks containing two styles of footwear. The district court construed the term to encompass only methods that contain track and roller mechanisms connecting display modules to a support base, which other claims expressly described.

The Federal Circuit held that the district court improperly imported the "track and roller" limitation from other claims. The Federal Circuit held that the plain and ordinary meaning of the claim term should control unless it was ambiguous or a special definition was apparent from the intrinsic record. The Federal Circuit could find no express disclaimer in the prosecution history of other methods of displaying footwear not involving the rolling track mechanism. Although the preferred embodiment disclosed in the specification included a rolling track mechanism, other embodiments

536. Id. at 1344, 85 U.S.P.Q.2d (BNA) at 1508.
537. Id., 85 U.S.P.Q.2d (BNA) at 1508.
538. Id. at 1345, 85 U.S.P.Q.2d (BNA) at 1509.
539. Id., 85 U.S.P.Q.2d (BNA) at 1508.
540. Id. at 1345-46, 85 U.S.P.Q.2d (BNA) at 1508-10.
541. 537 F.3d 1342, 87 U.S.P.Q.2d (BNA) 1687 (Fed. Cir. 2008).
542. Id. at 1347, 87 U.S.P.Q.2d (BNA) at 1671.
543. Id. at 1344, 87 U.S.P.Q.2d (BNA) at 1688-89.
544. Id. at 1345 n.1, 87 U.S.P.Q.2d (BNA) at 1690 n.1.
545. Id. at 1345-46, 87 U.S.P.Q.2d (BNA) at 1690.
546. Id. at 1347, 87 U.S.P.Q.2d (BNA) at 1690-91.
547. Id., 87 U.S.P.Q.2d (BNA) at 1691.
548. Id., 87 U.S.P.Q.2d (BNA) at 1691.
included other means to permit the stack dividers to have horizontally movable positions. Thus, the Federal Circuit concluded that the district court had improperly imported into the claim term a limitation not required by the claims, specification, or prosecution history.

Likewise, in 800 Adept, Inc. v. Murex Securities, Ltd., the Federal Circuit relied on the plain language of the claims. The patents at issue in 800 Adept related to a method for routing “1-800” telephone calls to a business’s location closest to the caller. In dispute was the meaning of the method step that required assigning, for each potential caller, a telephone number to which that caller’s calls would be routed—“assigning to the physical location of said potential first parties a telephone number of a service location of a second party that will receive calls.” The district court construed the “assigning” limitation to encompass calculations made during the telephone call. The Federal Circuit found such a construction to be flawed.

First, the Federal Circuit found that the plain language of the claims made clear that the assigning step occurred prior to placement of the call and required that a telephone number of a service location be assigned to each potential caller. In addition, the court found nothing in the claims to suggest that assigning could encompass determining the telephone number of the service location during the telephone call based on a stored algorithm.

The written description supported a construction based on the plain language of the claims. Furthermore, statements made during prosecution in distinguishing the invention from a prior art reference reinforced such a construction. In considering the prosecution history, the court noted that it did not rely on the doctrine of prosecution disclaimer, which courts use to limit the scope of a claim term “that would otherwise be read broadly.”

549. Id. at 1348, 87 U.S.P.Q.2d (BNA) at 1691.
550. Id., 87 U.S.P.Q.2d (BNA) at 1691.
552. Id. at 1363, 88 U.S.P.Q.2d (BNA) at 1072.
553. Id. at 1357, 88 U.S.P.Q.2d (BNA) at 1067.
554. Id. at 1359, 88 U.S.P.Q.2d (BNA) at 1069 (emphasis omitted).
555. Id. at 1361, 88 U.S.P.Q.2d (BNA) at 1070–71.
556. Id. at 1362, 88 U.S.P.Q.2d (BNA) at 1071.
557. Id. at 1363, 88 U.S.P.Q.2d (BNA) at 1072.
558. Id., 88 U.S.P.Q.2d (BNA) at 1072.
559. Id., 88 U.S.P.Q.2d (BNA) at 1072.
560. Id. at 1364, 88 U.S.P.Q.2d (BNA) at 1072–73.
561. Id., 88 U.S.P.Q.2d (BNA) at 1073.
Rather, the court used the prosecution history simply to support its construction based on the claim language and written description.\textsuperscript{562} In contrast to the above cases, the Federal Circuit rejected reliance on the ordinary or customary meaning in construing the claim term “binary code” in Chamberlain Group, Inc. v. Lear Corp.\textsuperscript{563} The patent at issue related to a remote-control garage door opening system comprising of a transmitter (generally integrated into the vehicle) and a receiver (usually attached to the device that operates the garage door).\textsuperscript{564} The claim was directed to a transmitter comprising, inter alia, a “binary code generator.”\textsuperscript{565} The district court had broadly construed “binary code,” based on its ordinary and customary meaning, to “not [be] limited to[] a representation of a base 2 number.”\textsuperscript{566} The ordinary meaning of the binary code, according to the district court, could encompass binary numbers (base 2), trinary numbers (base 3), or even decimal numbers (base 10).\textsuperscript{567} Although the Federal Circuit recognized that it is unacceptable to import limitations from the written description into the claims, the appeals court held that the claims and specification required a more narrow interpretation of “binary code” limited to binary numbers.\textsuperscript{568} The court recognized that the written description is highly relevant to claim construction, and the court relied heavily on the specification’s use of the term “trinary code,” which indicated that “binary code” could not encompass base 3 numbers or any numbers other than base 2 numbers.\textsuperscript{569} Likewise, in Welker Bearing Co. v. PHD, Inc.,\textsuperscript{570} the Federal Circuit limited the scope of the claim term “mechanism for moving said finger” to the structure disclosed in the patent for performing that function under 35 U.S.C. § 112(6). At issue in that case was the scope of claims in two patents directed to pin clamps that hold a workpiece securely in place during welding and other manufacturing processes.\textsuperscript{571} Patent owner Welker Bearing asserted that those patents were infringed by two PHD clamp devices, “Clamp I” and “Clamp II.”\textsuperscript{572}

562. Id. at 1365, 88 U.S.P.Q.2d (BNA) at 1074.
563. 516 F.3d 1331, 1337, 86 U.S.P.Q.2d (BNA) 1104, 1108 (Fed. Cir. 2008).
564. Id. at 1333, 86 U.S.P.Q.2d (BNA) at 1105.
565. Id. at 1334, 86 U.S.P.Q.2d (BNA) at 1105.
566. Id. at 1336, 86 U.S.P.Q.2d (BNA) at 1108.
567. Id., 86 U.S.P.Q.2d (BNA) at 1107.
568. Id. at 1335–39, 86 U.S.P.Q.2d (BNA) at 1107–09.
569. Id. at 1335, 1339, 86 U.S.P.Q.2d (BNA) at 1107, 1109.
570. 550 F.3d 1090, 89 U.S.P.Q.2d (BNA) 1289 (Fed. Cir. 2008).
571. Id. at 1092, 85 U.S.P.Q.2d (BNA) at 1290-91.
572. Id. at 1094, 85 U.S.P.Q.2d (BNA) at 1292.
Ruling on PHD’s motion for summary judgment, the district court construed the claim term “mechanism for moving said finger” as a means-plus-function limitation under 35 U.S.C. § 112(6), and limited its scope to a “rotating central post.” Based on that ruling, the district court concluded that PHD’s Clamp II device did not infringe Welker Bearing’s patents.

Reviewing the district court’s claim construction, the Federal Circuit reviewed prior decisions construing the word “mechanism” and indicated that whether “mechanism” should be construed under § 112(6) is context specific. Agreeing with the district court that “mechanism for moving said finger” should be construed as a means-plus-function limitation, the Federal Circuit found it significant that “[n]o adjective endows the claimed ‘mechanism’ with a physical or structural component.” The Court also found that the remainder of each claim at issue “provides no structural context for determining the characteristics of the ‘mechanism’ other than to describe its function.”

Turning to whether the district court identified the correct structure disclosed in the specification as corresponding to the claimed function, the Federal Circuit agreed that the patents at issue only identified a single such structure: a rotating central post. The Court found Welker Bearing’s argument that the doctrine of claim differentiation compelled a different conclusion unavailing.

With regard to claim differentiation, this court is aware that claim 1 of the ’478 patent recites a rotating element, while claim 1 of the ’254 patent does not. This difference between claims in different patents does not change the meaning of these means-plus-function limitations. By statute, this court must follow the directive to construe these limitations according to § 112 ¶ 6. Because both terms share the same specification with the same structure corresponding to the claimed function, this court cannot give these terms any different scope.

Finally, the Federal Circuit rejected Welker Bearing’s argument that the Clamp II device could infringe under the doctrine of

573. Id., 85 U.S.P.Q.2d (BNA) at 1293.
574. The district court also granted summary judgment of no infringement as to the Clamp I product on the basis that the record did not show that PHD made, used, sold, or offered for sale the Clamp I device at any time after the patents had issued. Id., 85 U.S.P.Q.2d (BNA) at 1292-93. The Federal Circuit affirmed that finding. Id. at 1095, 85 U.S.P.Q.2d (BNA) at 1293.
575. Id. at 1096, 85 U.S.P.Q.2d (BNA) at 1294.
577. Id., 85 U.S.P.Q.2d (BNA) at 1294.
578. Id. at 1097, 85 U.S.P.Q.2d (BNA) at 1295.
579. Id. at 1098-99, 85 U.S.P.Q.2d (BNA) at 1295.
equivalents, and clarified that Welker Bearing’s argument was one of structural equivalents, rather than the doctrine of equivalents, because Clamp II's structure was well known in the prior art and could not be classified as after-arising technology.\textsuperscript{580} The Court agreed with the district court that the evidence showed Clamp II’s structure was not insubstantially different from the claimed rotating central post.\textsuperscript{581}

Notably, in Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc.\textsuperscript{582} the Federal Circuit held that the district court had properly construed “and” to mean “or.”\textsuperscript{583} The lawsuit arose under the Hatch-Waxman Act after Mylan filed an abbreviated new drug application certifying that Ortho-McNeil’s patent was invalid or not infringed.\textsuperscript{584} The patent claim at issue contained a specified chemical formula containing several R groups (R1, R2, R3, R4, and R5), wherein “R2, R3, R4, and R5 are independently hydrogen or lower alkyl and R2 and R3 and/or R4 and R5 together may be a group of formula (II).”\textsuperscript{585} The dispute hinged on construction of the term “and”: should it be construed to mean “and” (i.e., as conjunctive) so that both limitations must be met (thereby excluding the accused product, topiramate), or should it be construed to mean “or” (i.e., as disjunctive) so that either limitation is sufficient for infringement (thereby implicating topiramate)?\textsuperscript{586}

The Federal Circuit determined that, based on the use of “and” in the claim, “and” meant “or” and joined “mutually exclusive possibilities.”\textsuperscript{587} The court looked at the claim term in the context of other claims and noted that to require a conjunctive meaning would render several dependent claims meaningless, contrary to a well-established claim construction principle.\textsuperscript{588} Finally, the court examined the specification and concluded that it, too, supported a construction of “and” to mean “or.”\textsuperscript{589} The court concluded that it need not look at extrinsic evidence in construing the claim term because extrinsic evidence is less significant than intrinsic evidence.\textsuperscript{590} While conceding that the primary dictionary definition for “and” is in
the additive sense, the court noted that dictionaries also use “and” to connote alternatives.\footnote{591}{Id., 86 U.S.P.Q.2d (BNA) at 1200.}

Finally, the Federal Circuit in O2 Micro International Ltd. v. Beyond Innovation Technology Co.\footnote{592}{521 F.3d 1351, 86 U.S.P.Q.2d (BNA) 1304 (Fed. Cir. 2008).} held that a court’s determination that a claim term has its plain and ordinary meaning “may be inadequate when a term has more than one ‘ordinary’ meaning or when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.”\footnote{593}{Id. at 1361, 86 U.S.P.Q.2d (BNA) at 1311.} The court held that when reliance on the ordinary meaning does not resolve the parties’ dispute, it is the court’s duty to construe the term.\footnote{594}{Id., 86 U.S.P.Q.2d (BNA) at 1311.}

The patents at issue in O2 Micro were directed to DC/AC converter circuits, and the claims contained the phrase “only if said feedback signal is above a predetermined threshold.”\footnote{595}{Id. at 1354, 1356, 86 U.S.P.Q.2d (BNA) at 1305, 1307 (emphasis added).} The parties disputed whether the “only if” limitation applied “at all times without exception” or whether it applied only during “steady state operation.”\footnote{596}{Id. at 1361, 86 U.S.P.Q.2d (BNA) at 1311.} The district court declined to construe the phrase, concluding that it had a well-understood definition.\footnote{597}{Id., 86 U.S.P.Q.2d (BNA) at 1311.} On appeal, the Federal Circuit held that turning to the ordinary meaning did not resolve the parties’ dispute because the parties disagreed not about what the words “only if” meant but about when those words applied.\footnote{598}{Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1311.} The district court therefore should have construed the term “to determine what claim scope is appropriate in the context of the patents-in-suit.”\footnote{599}{Id., 86 U.S.P.Q.2d (BNA) at 1311.} By failing to resolve the dispute, the district court improperly left the jury free to consider the parties’ claim construction arguments.\footnote{600}{Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1311.}

B. Specification

The specification is highly relevant to claim construction and is often the “single best guide” to determining the meaning of a claim term to one of ordinary skill in the art.\footnote{601}{Phillips v. AWH Corp., 415 F.3d 1303, 1315, 75 U.S.P.Q.2d (BNA) 1321, 1326 (Fed. Cir. 2005) (en banc) (citing Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582, 39 U.S.P.Q.2d (BNA) 1573, 1577 (Fed. Cir. 1996)).} The Federal Circuit frequently relies on the overall invention disclosed in the

\footnotesize

\footnote{591}{Id., 86 U.S.P.Q.2d (BNA) at 1200.}
\footnote{592}{521 F.3d 1351, 86 U.S.P.Q.2d (BNA) 1304 (Fed. Cir. 2008).}
\footnote{593}{Id. at 1361, 86 U.S.P.Q.2d (BNA) at 1311.}
\footnote{594}{Id., 86 U.S.P.Q.2d (BNA) at 1311.}
\footnote{595}{Id. at 1354, 1356, 86 U.S.P.Q.2d (BNA) at 1305, 1307 (emphasis added).}
\footnote{596}{Id. at 1361, 86 U.S.P.Q.2d (BNA) at 1311.}
\footnote{597}{Id., 86 U.S.P.Q.2d (BNA) at 1311.}
\footnote{598}{Id., 86 U.S.P.Q.2d (BNA) at 1311.}
\footnote{599}{Id., 86 U.S.P.Q.2d (BNA) at 1311.}
\footnote{600}{Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1311.}
specification (and not just specific embodiments) to define the scope of claim terms.

In Netcraft Corp. v. eBay, Inc., the Federal Circuit addressed Internet billing method patents that included the limitation “providing a communications link through equipment of the third party.” The district court construed the term to require that the third party provide customers with Internet access. Finding that the claims themselves did not expressly require the third party to provide Internet access, the Federal Circuit turned to the specification. While it appreciated that the use of the phrase “the present invention” does not automatically limit the meaning of claim terms, the court held that, in this case, the specification’s repeated use of “the present invention” in the summary of the invention clearly referred to the invention as a whole and required the third party to provide Internet access. Furthermore, the abstract and disclosed embodiments supported that construction of the claim term. Finding the prosecution history to lack clarity, the Federal Circuit concluded that it was less helpful than the specification in construing the claim term.

In Praxair, Inc. v. ATMI, Inc., the Federal Circuit considered construction of two terms of a patent directed to an apparatus that limits potentially rapid accidental discharges of hazardous gasses from pressurized storage containers. Specifically, it construed the terms “flow restrictor” and “capillary.”

The Federal Circuit rejected defendant ATMI’s argument that, based on the specification, the term “flow restrictor” required “severe” restriction of gas flow. The court found that any statements in the specification to that effect pertained only to specific embodiments and not to the full scope of the invention. Nevertheless, appreciating that the overall objective of the invention was to prevent a hazardous release of gas, the court concluded that the term should be construed to require “a structure that serves to

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603. Id. at 1396, 89 U.S.P.Q.2d (BNA) at 1236 (quoting U.S. Patent No. 5,794,221 (filed July 7, 1995)).
604. Id. at 1397, 89 U.S.P.Q.2d (BNA) at 1237.
605. Id., 89 U.S.P.Q.2d (BNA) at 1237.
606. Id. at 1398, 89 U.S.P.Q.2d (BNA) at 1238.
607. Id. at 1396–99, 89 U.S.P.Q.2d (BNA) at 1238.
608. Id. at 1401–02, 89 U.S.P.Q.2d (BNA) at 1240–41.
610. Id. at 1310, 88 U.S.P.Q.2d (BNA) at 1707–08.
612. Id. at 1323, 88 U.S.P.Q.2d (BNA) at 1718.
613. Id., 88 U.S.P.Q.2d (BNA) at 1717.
restrict the rate of flow sufficiently to prevent a hazardous situation.”

Similarly, in construing the term “capillary,” the Federal Circuit rejected ATMI’s argument that the term should be construed to require that the capillaries be uniform. Again looking to the specification, it noted that only specific embodiments discussed uniform capillaries and not the invention as a whole. Moreover, it pointed to the structure of the claims as additional evidence that the term “capillary” did not require uniformity.

In Decisioning.com, Inc. v. Federated Department Stores, Inc., the Federal Circuit relied on the specification to conclude that the term “remote interface,” read in light of the specification, should be construed to exclude consumer-owned personal computers. The claim at issue was directed to an automatic account processing system for establishing a financial account for applicants located at a “remote interface.”

In construing the claim term, the majority first noted that the plain and ordinary meaning of “remote interface” is very broad and could, without reference to the specification, cover consumer-owned personal computers. The court, however, then turned to the specification, focusing on its use of the term “kiosk.” The preferred embodiment described a remote interface that was housed in a kiosk structure, but alternative embodiments were not so limited and the prosecution history made clear that a remote interface did not have to be housed in a kiosk. The majority, however, concluded that the specification used the term “kiosk” not only to refer to the housing for the computer equipment constituting the remote interface, but also, at times, to refer to the “entire ‘remote interface’ itself.” These latter uses of “kiosk,” combined with the common meaning of “kiosk,” suggest that the remote interface is installed in a publicly accessible location. Additionally, each example and feature of kiosks described in the specification indicating public accessibility led the majority to conclude that a skilled artisan would recognize that

614. Id. at 1324, 88 U.S.P.Q.2d (BNA) at 1718.
615. Id. at 1325–26, 88 U.S.P.Q.2d (BNA) at 1719–20.
616. Id., 88 U.S.P.Q. 2d (BNA) at 1719.
617. Id. at 1326–27, 88 U.S.P.Q. 2d (BNA) at 1720.
618. 527 F.3d 1300, 86 U.S.P.Q.2d (BNA) 1769 (Fed. Cir. 2008).
619. Id. at 1311, 86 U.S.P.Q.2d (BNA) at 1778.
620. Id. at 1304, 86 U.S.P.Q.2d (BNA) at 1773.
621. Id. at 1308, 86 U.S.P.Q.2d (BNA) at 1776.
622. Id., 86 U.S.P.Q.2d (BNA) at 1776.
623. Id. at 1308–09, 86 U.S.P.Q.2d (BNA) at 1776–77.
624. Id. at 1308, 86 U.S.P.Q.2d (BNA) at 1776.
625. Id. at 1310, 86 U.S.P.Q.2d (BNA) at 1777.
“remote interface” required public accessibility and did not encompass a consumer-owned personal computer.626

In his dissent, Judge Linn did not agree with the majority’s reading of the specification as using “kiosk” in two different senses: “I cannot subscribe to the majority’s seemingly contradictory analysis that the ‘remote interface’ is not limited to a ‘kiosk’ except when it is.”627 He stated that the majority had “incongruously equate[d] ‘remote interface’ with ‘kiosk’ to justify engrafting the ‘publicly-accessible’ characteristic of kiosks onto the ‘remote interface’ term.”628 Such a construction, according to Judge Linn, “violates fundamental tenets of claim construction precedent.”629 He also discerned no disclaimer of consumer-owned personal computers in the specification, and he thus concluded that the term “remote interface” should be given its ordinary, broad meaning.630

In Oatey v. IPS Corp.,631 the Federal Circuit reaffirmed the principle that claim terms should be construed so as not to exclude embodiments disclosed in the specification unless there is a clear disclaimer in the specification or prosecution history.632 The patented invention in Oatey was directed to a washing machine outlet box with two drain ports designed to satisfy new municipal plumbing codes prohibiting other appliances from sharing the drain port used by washing machines.633 The claim recited “[a] washing machine outlet box comprising a housing including a bottom wall, [and] first and second juxtaposed drain ports in said bottom wall.”634 The district court construed the phrase “first and second juxtaposed drain ports in said bottom wall” specifically to exclude an embodiment described in figure 3 of the patent.635 The district court construed the term to require “two separate physical openings in the bottom wall of the outlet box, as shown in Figure 2, and not a single opening divided by a wall in the attached tailpiece, as shown in Figure 3.”636 The Federal Circuit held that, because there was no disclaimer of the figure 3

626. Id., 86 U.S.P.Q.2d (BNA) at 1777–78.
627. Id. at 1317, 86 U.S.P.Q.2d (BNA) at 1783 (Linn, J., concurring-in-part and dissenting-in-part).
628. Id., 86 U.S.P.Q.2d (BNA) at 1783.
629. Id. at 1318, 86 U.S.P.Q.2d (BNA) at 1784.
630. Id., 86 U.S.P.Q.2d (BNA) at 1784.
632. Id. at 1276–77, 85 U.S.P.Q.2d (BNA) at 1794–95.
633. Id. at 1272, 85 U.S.P.Q.2d (BNA) at 1792.
634. Id. at 1275, 85 U.S.P.Q.2d (BNA) at 1793 (quoting U.S. Patent No. 6,148,850 (filed Apr. 21, 1999)) (emphasis omitted).
635. Id. at 1275–76, 85 U.S.P.Q.2d (BNA) at 1794.
636. Id., 85 U.S.P.Q.2d (BNA) at 1794 (emphasis added).
structure in the specification or prosecution history, it was improper to exclude it from the scope of the claim.\textsuperscript{637}

The Federal Circuit distinguished the Oatey case in its later decision in PSN Illinois, LLC v. Ivoclar Vividant, Inc.\textsuperscript{638} In PSN, the Federal Circuit considered a patent for a method of fabricating porcelain veneer restorations for teeth.\textsuperscript{639} The claim included an element that required a restoration to be “ready for mounting” on a tooth.\textsuperscript{640} The district court construed the term “ready for mounting” narrowly to mean that all finishing activities prior to mounting on the tooth had been performed (i.e., the element would not be met if any finishing step still needed to be performed).\textsuperscript{641} Finding no guidance in the claims themselves and no explicit definition in the specification, the court relied on implicit guidance in the specification to define the meaning of the term.\textsuperscript{642} The Federal Circuit concluded that the district court had erred by giving greater weight to the preferred embodiment (which did not describe finishing steps being performed after this point in the process) than to the summary of the invention (which did describe later finishing steps).\textsuperscript{643} The court found the decision in Oatey was inapplicable because the court’s construction of “ready for mounting” was broader than, and therefore did not exclude, the preferred embodiment.\textsuperscript{644} The court also noted that “Oatey is not a panacea, requiring all claims to cover all embodiments” and that “courts must recognize that disclosed embodiments may be within the scope of other allowed but unasserted claims.”\textsuperscript{645}

Although the Federal Circuit has recognized that claims should generally not be construed so as to read in inoperable embodiments, it clarified that principle in Cordis Corp. v. Medtronic Ave, Inc.\textsuperscript{646} The case involved a disputed claim pertaining to coronary stents with a wall surface having “a plurality of slots formed therein, the slots being disposed substantially parallel to the longitudinal axis of the tubular member.”\textsuperscript{647} The Federal Circuit affirmed the district court’s construction of the term “slots” to refer to both “complete slots” and

\textsuperscript{637} Id. at 1277–78, 85 U.S.P.Q.2d (BNA) at 1795.
\textsuperscript{638} 525 F.3d 1159, 86 U.S.P.Q.2d (BNA) 1892 (Fed. Cir. 2008).
\textsuperscript{639} Id. at 1162, 86 U.S.P.Q.2d (BNA) at 1893.
\textsuperscript{640} Id., 86 U.S.P.Q.2d (BNA) at 1894.
\textsuperscript{641} Id. at 1165, 86 U.S.P.Q.2d (BNA) at 1896.
\textsuperscript{642} Id., 86 U.S.P.Q.2d (BNA) at 1896.
\textsuperscript{643} Id. at 1166, 86 U.S.P.Q.2d (BNA) at 1897.
\textsuperscript{644} Id., 86 U.S.P.Q.2d (BNA) at 1897.
\textsuperscript{645} Id., 86 U.S.P.Q.2d (BNA) at 1897.
\textsuperscript{646} 511 F.3d 1157, 1174, 85 U.S.P.Q.2d (BNA) 1427, 1439 (Fed. Cir. 2008).
\textsuperscript{647} Id. at 1173, 85 U.S.P.Q.2d (BNA) at 1438 (quoting U.S. Patent No. 4,739,762 col.11 l.67 to col. 12 l.2 (filed Nov. 3, 1986)).
“half slots.” According to the Federal Circuit, a construction of the term “slots” to include both “complete slots” and “half slots” was consistent with the written description, which used the term “complete slots” to distinguish from “half slots.”

In so holding, the court rejected the argument that such a construction could not be correct since it covers inoperable embodiments. The court distinguished between a claim construction that makes all embodiments inoperable—which “should be viewed with extreme skepticism”—from a construction that might simply cover some inoperable embodiments. The court further noted that construction of other claim terms prevented the claim from covering any inoperable stents.

C. Prosecution History

In addition to consulting the specification, courts may also rely on the prosecution history in construing claim terms. In Board of Regents of the University of Texas System v. BENQ America Corp., the Federal Circuit construed the term “syllabic element”—which appeared in claims directed to a method of communicating by non-verbal transmission using a touch-tone telephone. The Federal Circuit held that “syllabic element” should be construed narrowly to mean a one-syllable letter group, not, as the patentee contended, a word or part of a word.

The Federal Circuit found little guidance in the claim language and instead relied on the specification and prosecution history to affirm the construction by the district court. The Federal Circuit noted that the specification repeatedly distinguished between a “word” and a “syllabic element,” demonstrating that the two terms are not coextensive in scope. The prosecution history likewise distinguished between “syllabic element” and “word.” Moreover,
the term “syllabic element” was added during prosecution to overcome an anticipation rejection after the examiner found prior art showing the use of a word—indicating that the claim was narrowed such that “syllabic element” did not include words.661

The scope of a claim term may be narrowed when the applicant makes a clear disclaimer during prosecution.662 In Computer Docking Station Corp. v. Dell, Inc.,663 the patents at issue related to a portable microprocessor.664 The Federal Circuit affirmed the district court’s construction of the terms “portable computer” and “portable computer microprocessing system” to mean “a computer without a built-in display or keyboard that is capable of being moved or carried about”—thus, excluding laptop computers.665

In so holding, the Federal Circuit relied on the doctrine of prosecution disclaimer.666 The court noted that the applicant had specifically distinguished its invention from a prior art reference disclosing a laptop computer with a built-in display and keyboard.667 Although the applicant distinguished its invention in multiple ways, that did not preclude the court from finding a disavowal when it was clear and unambiguous: “[A] disavowal, if clear and unambiguous, can lie in a single distinction among many.”668 In addition to the clear disavowal during prosecution, the court relied on the specification, which also supported such a construction.669

Likewise, in Solomon Technologies, Inc. v. International Trade Commission,670 the Federal Circuit found that the “prosecution history could not be clearer in showing a disclaimer” of subject matter.671 Here, the court was reviewing the construction of the term “integral combination of a respective electric motor element and an element of said transmission unit” in a patent directed to a combination motor and transmission device.672 The court found that, in response to an anticipation rejection, the patent applicant had clearly

661. Id., 87 U.S.P.Q.2d (BNA) at 1443.
664. Id. at 1370, 86 U.S.P.Q.2d (BNA) at 1130.
666. Id. at 1374–75, 86 U.S.P.Q.2d (BNA) at 1134.
667. Id. at 1375–77, 86 U.S.P.Q.2d (BNA) at 1135–36.
668. Id. at 1377, 86 U.S.P.Q.2d (BNA) at 1136.
669. Id. at 1378–79, 86 U.S.P.Q.2d (BNA) at 1137.
671. Id. at 1313, 86 U.S.P.Q.2d (BNA) at 1808.
672. Id. at 1312–13, 86 U.S.P.Q.2d (BNA) at 1807–08.
disclaimed devices that use shafts to connect the motor and transmission elements.\textsuperscript{673}

In contrast, the Federal Circuit found only a limited disavowal in Cohesive Technologies, Inc. v. Waters Corp.\textsuperscript{674} In Cohesive, the claims were directed to a high-performance liquid chromatography apparatus comprising a chromatographic body containing a “multiplicity of rigid, solid, porous particles.”\textsuperscript{675} Based in part on the prosecution history, the Federal Circuit construed “rigid” to not exclude polymeric particles.\textsuperscript{676} The Federal Circuit first recognized that the ordinary meaning of “rigid” does not require that a particle be monomeric and not polymeric.\textsuperscript{677} The Federal Circuit was also unable to discern a clear and unmistakable disavowal of polymeric particles in the prosecution history.\textsuperscript{678} The court agreed that while an expert declaration submitted by the applicant in response to a prior art rejection distinguished the particular particles disclosed in the prior art, the declaration did not disavow all polymeric particles.\textsuperscript{679}

Finally, in Baldwin Graphic Systems, Inc. v. Siebert, Inc.,\textsuperscript{680} the Federal Circuit affirmed the district court’s construction of the term “sealed sleeve” to be limited to “heat-sealed sleeve” based, in part, on the prosecution history.\textsuperscript{681} All references to a “sealed sleeve” in the specification were to a “heat-sealed sleeve,” and when the applicant had attempted during prosecution to remove the word “heat” from the specification and thereby broaden the invention’s scope, the PTO examiner rejected the changes as impermissibly adding new matter.\textsuperscript{682} Relying on this history, the Federal Circuit held that the term “sealed sleeve” was properly construed as limited to a “heat-sealed sleeve.”\textsuperscript{683} A broader construction would have caused the claim to have been invalid for lack of support in the initial disclosure.\textsuperscript{684}

D. Extrinsic Evidence

Although the Federal Circuit has “emphasized the importance of intrinsic evidence in claim construction,” extrinsic evidence may also

\begin{itemize}
  \item \textsuperscript{673} Id. at 1313, 86 U.S.P.Q.2d (BNA) at 1808.
  \item \textsuperscript{674} 543 F.3d 1351, 1361, 88 U.S.P.Q.2d (BNA) 1903, 1908–09 (Fed. Cir. 2008).
  \item \textsuperscript{675} Id. at 1358, 88 U.S.P.Q.2d (BNA) at 1906 (quoting U.S. Patent No. 5,772,874 col.20 l.20–34 (filed June 11, 1996)).
  \item \textsuperscript{676} Id. at 1362, 88 U.S.P.Q.2d (BNA) at 1909.
  \item \textsuperscript{677} Id. at 1360, 88 U.S.P.Q.2d (BNA) at 1908.
  \item \textsuperscript{678} Id. at 1360–61, 88 U.S.P.Q.2d (BNA) at 1908–09.
  \item \textsuperscript{679} Id. at 1361, 88 U.S.P.Q.2d (BNA) at 1908–09.
  \item \textsuperscript{680} 512 F.3d 1338, 85 U.S.P.Q.2d (BNA) 1503 (Fed. Cir. 2008).
  \item \textsuperscript{681} Id. at 1340, 1344, 85 U.S.P.Q.2d (BNA) at 1505, 1507.
  \item \textsuperscript{682} Id. at 1340–41, 85 U.S.P.Q.2d (BNA) at 1505.
  \item \textsuperscript{683} Id. at 1344, 85 U.S.P.Q.2d (BNA) at 1507–08.
  \item \textsuperscript{684} Id., 85 U.S.P.Q.2d (BNA) at 1508.
\end{itemize}
be considered. The Federal Circuit looked at both intrinsic and extrinsic evidence in construing the claim term “pipeline stage” in Microprocessor Enhancement Corp. v. Texas Instruments Inc. The patented technology concerned methods for increasing microprocessor efficiency. The court first looked at the context in which the term was used in the claims and concluded that other terms in the claim indicated that “pipeline stage” was used in a temporal, rather than positional, sense. The court found the specification to be ambiguous as to the meaning of the term but that the prosecution history supported the temporal construction of the claim term. Finally, the court examined extrinsic evidence—a computer textbook—which the court found “support[ed] the conclusion that the inventor used ‘the pipeline stage’ in its temporal sense, consistent with the term’s ordinary meaning in the computer arts.”

Courts also may rely on dictionaries, provided they are not used to contradict the intrinsic evidence. In Mangosoft, Inc. v. Oracle Corp., the district court had construed the term “local” as used to describe a computer device in computer networking systems to mean “a computer device (e.g., a hard drive) that is directly attached to a single computer’s processor by, for example, the computer’s bus.” Patent owner Mangosoft argued on appeal that the district court’s claim construction opinion, which was issued before the Federal Circuit’s opinion in Phillips v. AWH Corp., had improperly relied on older case law that promoted the use of technical dictionaries. The Federal Circuit was unpersuaded. It noted that Phillips “recognized that reference to such sources is not prohibited so long as the ultimate construction given to the claims in question is grounded in the intrinsic evidence.”

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687. Id. at 1369, 86 U.S.P.Q.2d (BNA) at 1226.
688. Id. at 1379, 86 U.S.P.Q.2d (BNA) at 1233.
689. Id. at 1378–79, 86 U.S.P.Q.2d (BNA) at 1233.
690. Id. at 1378–80, 86 U.S.P.Q.2d (BNA) at 1233–34.
691. Id. at 1380, 86 U.S.P.Q.2d (BNA) at 1235.
693. 525 F.3d 1327, 86 U.S.P.Q.2d (BNA) 1939 (Fed. Cir. 2008).
694. Id. at 1329, 86 U.S.P.Q.2d (BNA) at 1941.
695. Id. at 1329–30, 86 U.S.P.Q.2d (BNA) at 1941.
696. Id., 86 U.S.P.Q.2d (BNA) at 1941–42.
697. Id. at 1330, 86 U.S.P.Q.2d (BNA) at 1942 (citing Phillips, 415 F.3d at 1318, 75 U.S.P.Q.2d (BNA) at 1330).
district court had issued its decision before Phillips, its claim construction was “fully consistent with and supported by the intrinsic record—as well as the dictionary—and thus fully comports with our precedent.”

Similarly, in Helmsdorfer v. Bobrick Washroom Equipment, Inc., the Federal Circuit affirmed the district court’s construction of “partially hidden from view” to mean “hidden from view to some extent but not totally hidden from view” as the term was used to describe the top platform surface in a claim to a wall-mounted diaper changing station. The Federal Circuit first noted that the specification never used the term “partially hidden from view” to describe the platform top surface and that the term appeared only in the claims. Because there was nothing in the specification to assist in construing the term, the Federal Circuit concluded that the district court was free to look to extrinsic evidence, provided it did not contradict the meaning discerned from the intrinsic record. According to the Federal Circuit, “[w]hen the intrinsic evidence is silent as to the plain meaning of a term, it is entirely appropriate for the district court to look to dictionaries or other extrinsic sources for context—to aid in arriving at the plain meaning of a claim term.”

IV. INFRINGEMENT

Section 271(a) of the Patent Act provides that “whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.” Determining patent infringement entails two steps: (1) the claims must be construed; and (2) the properly construed claims must be compared to the allegedly infringing device. This section addresses the Federal Circuit’s 2008 cases dealing with the second step.

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698. Id., 86 U.S.P.Q.2d (BNA) at 1942.
700. Id. at 1380–81, 1384, 87 U.S.P.Q.2d (BNA) at 1217, 1219.
701. Id., 87 U.S.P.Q.2d (BNA) at 1217.
702. Id. at 1382, 87 U.S.P.Q.2d (BNA) at 1218.
703. Id., 87 U.S.P.Q.2d (BNA) at 1218.
A. Literal Infringement

"Generally, a claim is literally infringed if each properly construed claim element reads on the accused product or process."\(^{706}\) In Johns Hopkins University v. Datascope Corp., \(^{707}\) the Federal Circuit concluded that, despite a jury verdict of infringement and the district court’s denial of the accused infringer’s motion for judgment as a matter of law ("JMOL"), the accused product did not literally meet each of the claim elements.\(^ {708}\)

In Datascope, Johns Hopkins University and a licensee alleged that Datascope’s ProLumen device infringed patents relating to a catheter system.\(^ {709}\) Each of the asserted independent claims required introducing, into a vascular conduit, “a fragmentation catheter comprised either of a fragmentation member or an expanding distal end that automatically ‘expands to conform to the shape and diameter of the inner lumen’ of the vascular conduit.”\(^ {710}\) The term “expands to conform to the shape and diameter of the inner lumen” was construed to mean that the fragmentation member or distal end “expands and adjusts to remain in contact with the inner lumen in three dimensions along its length and width.”\(^ {711}\) The only evidence presented by the plaintiffs to show that the ProLumen literally met the “expands to conform” claim limitation was the testimony of their expert.\(^ {712}\) The expert concluded that “the S-wire in the ProLumen device expands and adjusts to remain in contact with the inner lumen in three dimensions along its length and width.”\(^ {713}\)

The Federal Circuit, in a decision written by District Judge Zobel (sitting by designation), concluded that the expert’s opinion was not supported by the facts.\(^ {714}\) On cross-examination, the expert admitted that the ProLumen device contacted the inner lumen at only two points.\(^ {715}\) A video animation relied upon by the expert also showed only two points of contact, and the Federal Circuit said this was unavoidable “[a]s a matter of geometry.”\(^ {716}\) The Federal Circuit therefore concluded that “no reasonable jury could have found that

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\(^{707}\) 543 F.3d 1342, 88 U.S.P.Q.2d (BNA) 1365 (Fed. Cir. 2008).
\(^{708}\) Id. at 1349, 88 U.S.P.Q.2d (BNA) at 1370.
\(^{709}\) Id. at 1343–44, 88 U.S.P.Q.2d (BNA) at 1366.
\(^{710}\) Id. at 1345, 88 U.S.P.Q.2d (BNA) at 1367 (quoting U.S. Patent No. 5,766,191 col.8 ll.34–42 (filed Feb. 29, 1996)).
\(^{711}\) Id. at 1348, 88 U.S.P.Q.2d (BNA) at 1369.
\(^{712}\) Id., 88 U.S.P.Q.2d (BNA) at 1368.
\(^{713}\) Id., 88 U.S.P.Q.2d (BNA) at 1368.
\(^{714}\) Id. at 1348, 88 U.S.P.Q.2d (BNA) at 1369–70.
\(^{715}\) Id. at 1347–48, 88 U.S.P.Q.2d (BNA) at 1369.
\(^{716}\) Id. at 1348, 88 U.S.P.Q.2d (BNA) at 1369–70.
the ProLumen device literally met the limitation," and reversed the district court's denial of the defendant's motion for JMOL. 717

Judge Newman's dissent criticized the majority's willingness to rebalance the evidence. 718 Without specifically addressing the claim construction requiring contact "in three dimensions," Judge Newman said plaintiffs' expert's testimony was sufficient to support the jury verdict. 719 "[I]t is not the Federal Circuit's province to reweigh the evidence, when there was substantial evidence by which a reasonable jury could have reached its verdict." 720

In Technology Licensing Corp. v. Videotek, Inc., 721 the Federal Circuit affirmed a judgment of no literal infringement reached by the district court after a bench trial. 722 The patent related to the separation of synchronization signals from video signals. 723 The patent was "directed to methods for sync separation . . . that minimize the effect of noise in the video signal." 724 The issue was whether the accused chips produced voltage peaks of synchronization signals that constituted a "clamped sync portion" as required by the claims. 725 The trial court found that "it simply cannot be said that the [accused] chips are designed to or do in practice produce a 'clamped sync portion' at the [patented level], even if a few pulses at that level sometimes occur in actual operation." 726

On appeal, the plaintiff made two arguments: first, that the trial court had mistakenly excused the defendant's infringement as de minimis ("even if a few pulses at that level sometimes occur in actual operation"); and second, that the trial court improperly required plaintiff to prove intent to infringe. 727 The Federal Circuit, however, disagreed with both arguments. 728 As to the first argument, the Federal Circuit understood the trial court to have found that "the few pulses that might occur at the [patented] level would not be a

717. Id. at 1349, 88 U.S.P.Q.2d (BNA) at 1370.
718. See id. at 1349–51, 88 U.S.P.Q.2d (BNA) at 1370–72 (Newman, J., dissenting) (concluding that there was, in fact, substantial evidence in support of the jury's verdict, and that it is not the job of the appellate court to replace the trial court's verdict due to its own interpretation of the evidence).
719. Id. at 1350–51, 88 U.S.P.Q.2d (BNA) at 1371.
720. Id. at 1351, 88 U.S.P.Q.2d (BNA) at 1371.
722. Id. at 1336, 88 U.S.P.Q.2d (BNA) at 1880.
723. Id. at 1320, 88 U.S.P.Q.2d (BNA) at 1868.
724. Id. at 1321, 88 U.S.P.Q.2d (BNA) at 1868.
725. Id. at 1335–36, 88 U.S.P.Q.2d (BNA) at 1880.
727. Id. at 1336, 88 U.S.P.Q.2d (BNA) at 1880.
728. Id., 88 U.S.P.Q.2d (BNA) at 1880.
clamped sync portion within the meaning of the claims because the hard clamp circuit does not perform the function of clamping or holding the sync tips to that voltage level.\textsuperscript{729} The Federal Circuit said the district court did not find “that those few pulses actually would infringe very quickly or briefly.”\textsuperscript{730}

The plaintiff’s second argument was based on the district court’s statement that if any pulses happened at the patented level, “it would be ‘a matter of happenstance rather than design.’”\textsuperscript{731} The plaintiff argued that the court required it to prove intent because of the use of the word “design.”\textsuperscript{732} The Federal Circuit, however, concluded that that statement did not mean that the trial court equated design with intent.\textsuperscript{733} Instead, it “was merely part of the evidence considered by the trial court in concluding that the hard clamp circuit does not provide a clamped sync portion.”\textsuperscript{734}

In Broadcom Corp. v. International Trade Commission,\textsuperscript{735} the Federal Circuit addressed when a product’s compliance with industry standards could be used to prove infringement.\textsuperscript{736} Broadcom complained to the International Trade Commission (“ITC”) that Qualcomm had imported chipsets that infringed Broadcom’s patents.\textsuperscript{737} Broadcom accused Qualcomm’s chipsets in wireless handsets on third-generation wireless networks that use the EV-DO wireless communication standard developed and promoted by Qualcomm.\textsuperscript{738} Broadcom argued that “under the EV-DO standard, networks must implement the Idle State Protocol’s Sleep State and that the Sleep State involves powering down a handset’s wireless receiver”—which allegedly infringed the patent.\textsuperscript{739} The Federal Circuit, however, disagreed. It concluded that the EV-DO standard did not require handsets to enter the Sleep State or power down when in the Sleep State: “[t]he EV-DO standard provides that a terminal in the Sleep State ‘may shut down part of its subsystems to conserve power’ and the terminal ‘may shut down processing resources to reduce power consumption.’”\textsuperscript{740} Moreover, the Federal Circuit continued, the EV-DO standard specified that “the use of the

\begin{footnotesize}
\begin{itemize}
  \item Id., 88 U.S.P.Q.2d (BNA) at 1880.
  \item Id., 88 U.S.P.Q.2d (BNA) at 1880.
  \item Id., 88 U.S.P.Q.2d (BNA) at 1880 (quoting Videotek, 2007 WL 1319528, at *6).
  \item Id., 88 U.S.P.Q.2d (BNA) at 1880.
  \item Id., 88 U.S.P.Q.2d (BNA) at 1880.
  \item Id., 88 U.S.P.Q.2d (BNA) at 1880.
  \item 542 F.3d 894, 88 U.S.P.Q.2d (BNA) 1289 (Fed. Cir. 2008).
  \item Id. at 899, 88 U.S.P.Q.2d (BNA) at 1293.
  \item Id. at 896, 88 U.S.P.Q.2d (BNA) at 1290.
  \item Id. at 898, 88 U.S.P.Q.2d (BNA) at 1292.
  \item Id. at 899, 88 U.S.P.Q.2d (BNA) at 1293 (emphasis added).
  \item Id., 88 U.S.P.Q.2d (BNA) at 1293 (emphasis added).
\end{itemize}
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word ‘may’ instead of ‘shall’ indicates that a certain feature is not required by the standard.”741 The Federal Circuit therefore affirmed the Commission’s finding of non-infringement.742 The Federal Circuit did not consider Broadcom’s argument that Qualcomm’s promotion of the optional features was sufficient to show inducement because the Federal Circuit found that Broadcom had not presented that argument to the administrative law judge at the ITC.743

In Muniauction, Inc. v. Thomson Corp.,744 the Federal Circuit addressed the issue of joint infringement, following up on the court’s previous decision in BMC Resources, Inc. v. Paymentech, L.P.,745 which “clarified the proper standard for whether a method claim is directly infringed by the combined actions of multiple parties.”746 Under BMC Resources, “where the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed only if one party exercises ‘control or direction’ over the entire process such that every step is attributable to the controlling party, i.e., the ‘mastermind.’”747 In Muniauction, the issue was whether the actions of a bidder and auctioneer in an electronic system for auctioning financial instruments “may be combined under the law so as to give rise to a finding of direct infringement by the auctioneer.”748 The Federal Circuit found that it was insufficient that the auctioneer controlled access to its system and instructed bidders on the system’s use.749 The court held that the auctioneer “neither performed every step of the claimed methods nor had another party perform steps on its behalf, and Muniauction [had] identified no legal theory under which Thomson might be vicariously liable for the actions of the bidders.”750

In Zenith Electronics Corp. v. PDI Communications Systems, Inc.,751 the district court addressed a defense to infringement: implied license.752 Plaintiff Zenith owned a patent on wired remote control devices, called “pillow speakers,” used to control a television and receive

742. Id. at 908, 88 U.S.P.Q.2d (BNA) at 1299.
743. Id. at 900, 88 U.S.P.Q.2d (BNA) at 1293–94.
745. 498 F.3d 1373, 84 U.S.P.Q.2d (BNA) 1545 (Fed. Cir. 2007).
748. Id., 87 U.S.P.Q.2d (BNA) at 1357.
749. Id. at 1330, 87 U.S.P.Q.2d (BNA) at 1358.
750. Id., 87 U.S.P.Q.2d (BNA) at 1358.
television audio in hospital rooms.\textsuperscript{753} Zenith then licensed the patent to three companies that manufactured and distributed the pillow speakers.\textsuperscript{754} Defendant PDI marketed a television that was compatible with Zenith’s pillow speakers,\textsuperscript{755} and Zenith sued claiming that PDI directly infringed its patent by testing its televisions with pillow speakers, and indirectly infringed by supplying televisions and encouraging customers to operate them with pillow speakers.\textsuperscript{756} The district court granted PDI’s motion for summary judgment based on the licenses between Zenith and the three pillow speaker manufacturers.\textsuperscript{757} The Federal Circuit affirmed.\textsuperscript{758} In an opinion by Judge Schall, the appeals court noted that this case was different than a typical implied-license case.\textsuperscript{759} In an ordinary case, the issue is whether a license is implied by the mere “sale of nonpatented equipment used to practice a patented invention.”\textsuperscript{760} A court therefore will, in the typical case, examine whether the unpatented equipment has noninfringing uses and infer an implied license only if the unpatented equipment has no noninfringing uses.\textsuperscript{761} In this case, however, the Federal Circuit stated that “the license is not merely implied by virtue of the sale of pillow speakers by [the three manufacturers].”\textsuperscript{762} Instead, customers purchasing pillow speakers obtained an implied license to use the pillow speakers “derived from the express licenses between Zenith and those manufacturers.”\textsuperscript{763} In this situation, where the patent owner had expressly authorized the sale of a device for infringing uses, the traditional inquiry—whether the equipment involved has no noninfringing uses—was irrelevant.\textsuperscript{764} The court next addressed the scope of the implied licenses obtained by the purchasers of pillow speakers—i.e., whether they allowed the customers to use the pillow speakers with non-Zenith

\textsuperscript{753} Id. at 1352, 86 U.S.P.Q.2d (BNA) at 1515.
\textsuperscript{754} Id. at 1353, 86 U.S.P.Q.2d (BNA) at 1516.
\textsuperscript{755} Id., 86 U.S.P.Q.2d (BNA) at 1516.
\textsuperscript{756} Id., 86 U.S.P.Q.2d (BNA) at 1516.
\textsuperscript{757} Id. at 1354, 86 U.S.P.Q.2d (BNA) at 1517.
\textsuperscript{758} Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1523.
\textsuperscript{759} See id. at 1360–61, 86 U.S.P.Q.2d (BNA) at 1521–22 (analogizing this case to Jacobs v. Nintendo of Am., Inc., 370 F.3d 1097, 71 U.S.P.Q.2d (BNA) 1055 (Fed. Cir. 2004), which was not a typical implied-license case).
\textsuperscript{760} Id. at 1360, 86 U.S.P.Q.2d (BNA) at 1522 (quoting Met-Coil Sys., Corp. v. Korners Unlimited, Inc., 803 F.2d 684, 231 U.S.P.Q. (BNA) 474 (Fed. Cir. 1986)) (emphasis added).
\textsuperscript{761} Id., 86 U.S.P.Q.2d (BNA) at 1521–22.
\textsuperscript{762} Id., 86 U.S.P.Q.2d (BNA) at 1522.
\textsuperscript{763} Id. at 1361, 86 U.S.P.Q.2d (BNA) at 1522.
\textsuperscript{764} Id., 86 U.S.P.Q.2d (BNA) at 1522.
televisions such as PDI’s televisions.\textsuperscript{765} The Federal Circuit noted that the express license agreements gave the three manufacturers broad “authorization to make, have made, use, sell or otherwise dispose of . . . any pillow speaker unit” and that “[n]o restrictions are placed on the grants.”\textsuperscript{766} The court therefore held that “purchasers of pillow speakers manufactured by [the three companies] obtain[ed] an implied license under [the patent] to use the pillow speakers in combination with any compatible television—not just Zenith televisions.”\textsuperscript{767} and the appeals court affirmed the district court’s grant of summary judgment that the patent was not infringed upon because of the implied license defense.\textsuperscript{768}

B. The Doctrine of Equivalents

Under the doctrine of equivalents, “a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.”\textsuperscript{769} Infringement under the doctrine of equivalents may be limited by a number of related doctrines, such as prosecution history estoppel.\textsuperscript{770}

1. Amendment-based prosecution history estoppel

“The doctrine of prosecution history estoppel prevents a patent owner from recapturing with the doctrine of equivalents subject matter surrendered to acquire the patent.”\textsuperscript{771} Under amendment-based prosecution estoppel history, “[a] patentee’s decision to narrow his claims through amendment may be presumed to be a general disclaimer of the territory between the original claim and the amended claim.”\textsuperscript{772} This presumption of surrender, however,

\textsuperscript{765} See id. at 1361–62, 86 U.S.P.Q.2d (BNA) at 1522 (discussing whether the implied licenses allowed the customers to use the pillow speakers with non-Zenith televisions such as PDI’s televisions).
\textsuperscript{766} Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1523.
\textsuperscript{767} Id., 86 U.S.P.Q.2d (BNA) at 1522 (emphasis omitted).
\textsuperscript{768} Id., 86 U.S.P.Q.2d (BNA) at 1522.
\textsuperscript{772} Festo, 535 U.S. at 740, 62 U.S.P.Q.2d (BNA) at 1713 (citing Exhibit Supply Co. v. Ace Patents Corp., 315 U.S. 126, 136–37, 52 U.S.P.Q (BNA) 275, 277 (1942)).
according to Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., can be rebutted if the patentee shows any of the following:

[T]hat the alleged equivalent would have been unforeseeable at the time of the narrowing amendment, that the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent in question, or that there was “some other reason” suggesting that the patentee could not reasonably have been expected to have described the alleged equivalent.

a. The tangentiality exception

The Federal Circuit addressed the second of these, the tangentiality exception, in at least three cases during 2008. In Regents of the University of California v. Dakocytomation California, Inc., the Federal Circuit rejected the trial court’s rulings that prosecution history estoppel barred the plaintiffs’ allegations of infringement under the doctrine of equivalents. The patent at issue was “directed to improved ‘methods for identifying and classifying chromosomes’ in order to detect chromosomal abnormalities.” The district court held that the patentees had narrowed the scope of the “blocking nucleic acid” limitation during prosecution. The district court therefore barred the plaintiffs from asserting that the defendants’ peptide nucleic acids (“PNAs”) were an equivalent of a “blocking nucleic acid” and granted summary judgment of non-infringement under the doctrine of equivalents.

On appeal, the plaintiffs argued that prosecution history estoppel did not apply because the “nucleic acid” limitation was not narrowed during prosecution for a substantial purpose related to patentability. Alternatively, they argued that the presumption of surrender was overcome because the rationale for the amendment was only tangentially related to the accused equivalent product.

The Federal Circuit concluded that the patentees presumptively surrendered all equivalents of the “blocking nucleic acid” limitation

776. Id. at 1378, 85 U.S.P.Q.2d (BNA) at 1939.
777. Id. at 1368, 85 U.S.P.Q.2d (BNA) at 1930 (quoting U.S. Patent No. 5,447,841 col.1 ll.21–22 (filed Dec. 14, 1990)).
778. Id. at 1376, 85 U.S.P.Q.2d (BNA) at 1937.
780. Id., 85 U.S.P.Q.2d (BNA) at 1937.
because they had amended the claim to overcome, at least in part, the examiner’s rejections. The Federal Circuit held that the presumption of surrender was overcome here “because the narrowing amendment was only tangential to the accused PNA equivalent.” The court found that the prosecution history showed that the patentees’ arguments in narrowing the claim focused on the method of blocking, not the type of nucleic acid. Indeed, the court found that the “nucleic acid” aspect of the claim was “not at issue in the office action rejecting the claims, the Examiner Interview Summary Record, or the patentees’ remarks accompanying the amendment.”

The dissenting opinion of Judge Prost disagreed with the majority’s application of the presumption of prosecution history estoppel. The amendment, Judge Prost stated, had more than a simple tangential relationship to the equivalent because it “limits the claims to a method of disabling repetitive sequences by blocking with ‘blocking nucleic acids’ (i.e., DNA or RNA).” Judge Prost stated that the patentees therefore “surrendered any other means of disabling repetitive sequences,” but the accused equivalent (PNA) “functions to do exactly that, i.e., to disable repetitive sequences.”

In Lucent Technologies, Inc. v. Gateway, Inc., however, Judge Prost wrote the opinion for the court rejecting the application of the tangentiality exception and holding that prosecution history estoppel barred infringement under the doctrine of equivalents. The patent at issue related to methods of compressing speech. Plaintiff Lucent argued on appeal that the district court erred in finding that it had not rebutted the presumption of surrender through the tangentiality exception. More specifically, Lucent argued that the accused equivalent diverged from the claimed invention in that:

[Steps 1-4 (determining redundancies) are performed once per frame as opposed to once per pulse. This difference... is unrelated to the rationale for the amendment, which was to distinguish the claimed invention from the prior art based only on

782. Id. at 1377–78, 85 U.S.P.Q.2d (BNA) at 1937–38.
783. Id. at 1378, 85 U.S.P.Q.2d (BNA) at 1939.
784. Id. at 1381, 85 U.S.P.Q.2d (BNA) at 1941.
785. Id. at 1378, 85 U.S.P.Q.2d (BNA) at 1939.
786. Id. at 1380, 85 U.S.P.Q.2d (BNA) at 1940 (Prost, J., dissenting).
787. Id. at 1381, 85 U.S.P.Q.2d (BNA) at 1941.
788. Id., 85 U.S.P.Q.2d (BNA) at 1941.
790. Id. at 1217, 87 U.S.P.Q.2d (BNA) at 1014–15.
791. Id. at 1204, 87 U.S.P.Q.2d (BNA) at 1004.
792. Id. at 1217, 87 U.S.P.Q.2d (BNA) at 1014.
the performance of step 5 (removing redundancies) during each pulse-forming iteration as opposed to during each frame-based iteration.\(^{793}\)

The Federal Circuit again applied Festo’s test for the tangential exception—“whether the reason for the narrowing amendment is peripheral, or not directly relevant, to the alleged equivalent”\(^{794}\)—but the court concluded that the plaintiffs had not overcome the presumption of surrender.\(^{795}\) The court concluded that the patentee had amended the claims to add “a five-step iterative process for determining and removing redundancies during the pulse-forming loop.”\(^{796}\) The claimed invention differed from the prior art because the invention determined pitch removal during each pulse-forming iteration.\(^{797}\) The alleged equivalent, however, “determine[d] pitch redundancy outside the iterative process for forming each loop,” and the court therefore concluded that “the purpose for the amendment is not unrelated [i.e., not tangential] to the alleged equivalent.”\(^{798}\)

Similarly, in International Rectifier Corp. v. IXYS Corp.,\(^{799}\) the Federal Court held that the tangentiality exception did not apply.\(^{800}\) During the prosecution of its patent related to metal-oxide-semiconductor field effect transistors (“MOSFETs”), the patentee added an “adjoining” limitation to overcome the examiner’s rejections.\(^{801}\) The defendant argued that this amendment limited the claim only to MOSFET devices and therefore precluded it from reaching IXYS’s insulated gate bipolar transistors (“IGBTs”).\(^{802}\)

In response, the patentee argued that prosecution history estoppel did not apply to the “adjoining” limitation because it broadened the claim instead of narrowing it, and alternatively, that the tangential exception applied.\(^{803}\) The Federal Circuit held that the patentee was partially correct that the “adjoining” amendment was broadening in some respects.\(^{804}\) In other respects, however, “[t]his term excludes structures that might have been covered by the original claim

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\(^{793}\) Id., 87 U.S.P.Q.2d (BNA) at 1014.
\(^{794}\) Id. at 1218, 87 U.S.P.Q.2d (BNA) at 1015 (quoting Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 344 F.3d 1359, 1369, 68 U.S.P.Q.2d (BNA) 1321, 1328 (Fed. Cir. 2003) (en banc)).
\(^{795}\) Id. at 1218, 87 U.S.P.Q.2d (BNA) at 1015.
\(^{796}\) Id., 87 U.S.P.Q.2d (BNA) at 1015.
\(^{797}\) Id., 87 U.S.P.Q.2d (BNA) at 1015.
\(^{798}\) Id., 87 U.S.P.Q.2d (BNA) at 1015.
\(^{799}\) 515 F.3d 1353, 85 U.S.P.Q.2d (BNA) 1907 (Fed. Cir. 2008).
\(^{800}\) Id. at 1359, 85 U.S.P.Q.2d (BNA) at 1912.
\(^{801}\) Id. at 1358, 85 U.S.P.Q.2d (BNA) at 1911.
\(^{802}\) Id., 85 U.S.P.Q.2d (BNA) at 1911.
\(^{803}\) Id. at 1358–59, 85 U.S.P.Q.2d (BNA) at 1911.
\(^{804}\) Id. at 1359, 85 U.S.P.Q.2d (BNA) at 1911.
language," and "[t]he amendment therefore narrowed the scope of the claim." \(^{805}\)

As to the tangentiality argument, the Federal Circuit acknowledged that the examiner rejected the original claim because the specification did not support all of its limitations and that the patentee overcame this rejection "by amending the claim to contain only the structural limitations disclosed in the text of the specification," a modification that might not have been required. \(^{806}\) Nonetheless, the court concluded that the patentee's decision to narrow the claim "using the limiting term 'adjoining,' whether or not required to overcome the rejection, cannot be described as only tangentially related to the equivalency of a structure with a non-adjoining regions." \(^{807}\)

b. The foreseeability exception

_Honeywell International, Inc. v. Hamilton Sundstrand Corp._ \(^{808}\) involved both the tangentiality and foreseeability exceptions from _Festo_. The patent at issue involved "technology to control airflow surge in auxiliary power units or ‘APUs.’" \(^{809}\) Honeywell alleged that Sundstrand’s APS 3200 infringed claims of three of its patents under the doctrine of equivalents. \(^{810}\) The district court held that Honeywell had not overcome the presumption of surrender under either the tangentiality or foreseeability exceptions and that prosecution history estoppel therefore precluded application of the doctrine of equivalents. \(^{811}\)

The Federal Circuit agreed with the district court. In its tangentiality analysis, the Federal Circuit focused on the patentee's rewriting of dependent claims into independent ones. \(^{812}\) According to the court, by rewriting the dependent claims (which contained an "IGV limitation") as independent claims, the patentee "effectively add[ed] the [IGV] limitation to the claimed invention." \(^{813}\) The court

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805. Id., 85 U.S.P.Q.2d (BNA) at 1911.
806. Id., 85 U.S.P.Q.2d (BNA) at 1911-12.
807. Id., 85 U.S.P.Q.2d (BNA) at 1912.
809. Id. at 1307, 86 U.S.P.Q.2d (BNA) at 1720.
810. Id. at 1310, 86 U.S.P.Q.2d (BNA) at 1722.
811. Id. at 1311, 86 U.S.P.Q.2d (BNA) at 1723.
812. See id. at 1316, 86 U.S.P.Q.2d (BNA) at 1727 (emphasizing the need to assess "the patentee’s objectively apparent reason for the narrowing amendment" (quoting _Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co._, 344 F.3d 1359, 1369, 68 U.S.P.Q.2d (BNA) 1321, 1328 (Fed. Cir. 2003))).
said that Honeywell had, in essence, amended the claims to add the IGV limitation and that “[b]ecause the alleged equivalent focuses on the IGV limitation, the amendment bore a direct, not merely tangential, relation to the equivalent.”\footnote{814} With respect to foreseeability, the essential inquiry is “whether the alleged equivalent would have been unforeseeable to one of ordinary skill in the art at the time of the amendment.”\footnote{815} By limiting the application of prosecution history estoppel only to unforeseeable equivalents, the exception “ensures that the doctrine [of equivalents] does not capture subject matter that the patent drafter could have foreseen during prosecution and included in the claims.”\footnote{816} In Honeywell, the Federal Circuit had to decide whether the alleged equivalent—“the use of IGV position to detect high flow and low flow”—was later-developed technology and unforeseeable at the time of the amendments during prosecution.\footnote{817} The defendant had not developed the alleged equivalent until eight years after the patent amendments, but the Federal Circuit held that this timing was “ambiguous with respect to the foreseeability criterion” because, for example, the defendant had developed the equivalent quickly after noticing the problem.\footnote{818} The court ultimately found that “much of the extrinsic evidence—most notably several prior art references in the record—support[ed] the district court’s decision” that the alleged equivalent was foreseeable to a person of ordinary skill at the time of the amendment.\footnote{819} In her dissenting opinion, Judge Newman argued that prosecution history estoppel did not apply because the claims were never substantively amended, only changed in form from dependent to independent claims.\footnote{820} Judge Newman disagreed with the majority’s “presumption of surrender to all equivalents of the claim elements and limitations that originated in dependent claims that were never amended and that were not the subject of prosecution history estoppel.”\footnote{821} According to Judge Newman, the majority’s holding that “surrender of the entire universe of potential equivalents is presumed

\footnote{814}{Id., 86 U.S.P.q.2d (BNA) at 1727.}
\footnote{815}{Id. at 1312, 86 U.S.P.Q.2d (BNA) at 1724 (quoting Festo, 344 F.3d at 1369, 68 U.S.P.Q.2d (BNA) at 1327).}
\footnote{816}{Id. at 1313, 86 U.S.P.Q.2d (BNA) at 1725.}
\footnote{817}{Id., 86 U.S.P.Q.2d (BNA) at 1725.}
\footnote{818}{Id. at 1314, 86 U.S.P.Q.2d (BNA) at 1726.}
\footnote{819}{Id., 86 U.S.P.Q.2d (BNA) at 1726.}
\footnote{820}{See id. at 1321, 86 U.S.P.Q.2d (BNA) at 1731 (Newman, J., dissenting) (“Simply presenting claims of varying scope, whether in independent or dependent form, is not a narrowing amendment or argument.”).}
\footnote{821}{Id. at 1317, 86 U.S.P.Q.2d (BNA) at 1728.}
when the original independent claim is cancelled, even though there was no narrowing amendment or limiting argument during prosecution with respect to the dependent claims, “place[d] new constraints on the patentee’s access to the doctrine of equivalents.”

With respect to the tangentiality exception, Judge Newman argued that the majority did not review the reason for the narrowing amendment and its relation to the accused equivalent as required by Festo. According to Judge Newman, “[t]his criterion relates to why an amendment was made; it does not become irrebuttable simply when the accused equivalent concerns the same element that was added by amendment.”

Furthermore, Judge Newman suggested that the majority applied significantly more restrictive criteria for the foreseeability exception than that established by the Supreme Court in Festo. According to Judge Newman, under Festo, “foreseeability means ‘readily known equivalents,’ not unknown equivalents developed a decade later.” The alleged equivalent was not foreseeable because “[i]t was uncontradicted that the [alleged] equivalent was developed years after the [patentee’s] application was filed and prosecuted, and only after considerable effort.”

2. Argument-based prosecution history estoppel

“In addition to amendment-based prosecution history estoppel, there can also be argument-based prosecution history estoppel.” Argument-based prosecution history estoppel can arise when the patentee makes unmistakable statements surrendering claim scope during patent prosecution.

In Cordis Corp. v. Medtronic AVE, Inc., the Federal Circuit engaged in an extensive analysis of argument-based prosecution history estoppel. One of the defendants argued that the district court should have instructed the jury that prosecution history estoppel limited the range of “equivalents of the ‘wall surface’ limitation.”

822. Id., 86 U.S.P.Q.2d (BNA) at 1728.
823. Id. at 1318, 86 U.S.P.Q.2d (BNA) at 1729.
824. Id. at 1321–22, 86 U.S.P.Q.2d (BNA) at 1731–32.
825. Id. at 1322, 86 U.S.P.Q.2d (BNA) at 1732.
826. Id. at 1318, 86 U.S.P.Q.2d (BNA) at 1729.
828. Id. at 1321, 86 U.S.P.Q.2d (BNA) at 1731.
829. SCHWARTZ, supra note 706, at 168.
830. Id. at 168 n.81.
832. Id. at 1176, 85 U.S.P.Q.2d (BNA) at 1440.
The appellant relied on Omega Engineering, Inc. v. Raytek Corp., in which the Federal Circuit discussed “the relationship between prosecution disclaimer (limiting claim scope because of statements made by the patentee in prosecution) and argument-based prosecution history estoppel (limiting the scope of the doctrine of equivalents because of statements made by the patentee in prosecution).” In Omega, the Federal Circuit stated that both prosecution disclaimer and argument-based estoppel required “clear and unmistakable” disavowing actions or statements during prosecution.

The Federal Circuit agreed with the district court that the patentee had not made any broad disclaimer regarding the “wall surface” limitation during the prosecution history. Instead, the patentee had “simply made explicit the meaning of the term ‘wall surface’ that was already implicit in the patent.” A “reference to the ‘common cylindrical plane’ in the prosecution history therefore did not disclaim any subject matter that was otherwise within the scope of the claim language, but merely explained, in more explicit terms, what the claims already covered.” Thus, the Federal Circuit held, there was no “clear and unmistakable disavowal of claim scope that would eliminate any equivalents of the ‘wall surface’ limitation.”

3. Other limitations on the Doctrine of Equivalents

The doctrine of equivalents is subject to additional limitations besides prosecution history estoppel. For example, “the ‘all limitations rule’ restricts the application of the doctrine of equivalents if doing so would vitiate a claim limitation.” When considering whether the doctrine of equivalents would vitiate a claim limitation, a court must consider “whether the alleged equivalent can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the pertinent limitation meaningless.”

835. Omega, 334 F.3d at 1325–26, 67 U.S.P.Q.2d (BNA) at 1329.
837. Id., 85 U.S.P.Q.2d (BNA) at 1441.
838. Id., 85 U.S.P.Q.2d (BNA) at 1442.
839. Id. at 1178, 85 U.S.P.Q.2d (BNA) at 1442.
In Carnegie Mellon University v. Hoffman-La Roche, Inc., the Federal Court held that the “all limitations rule” prevented the patentee’s use of the doctrine of equivalents. The patents related to “novel recombinant plasmids for the enhanced expression of an enzyme” and to “methods for the conditional control of the expression of said enzyme.” During prosecution, the patentee “specifically chose to limit claim 4 to a recombinant plasmid where the bacterial source [was] E. coli.” In litigation, the patentee argued that the defendant’s product, which replaced E. coli with an enzyme known as Thermus aquaticus (“Taq”) was insubstantial and equivalent to the plaintiff’s product. The Federal Circuit, however, concluded that “a finding that Taq is an equivalent of E. coli would essentially render the ‘bacterial source [is] E. coli’ claim limitation meaningless, and would thus vitiate that limitation of the claims.” After they “specifically chose” E. coli to be the bacterial source, the plaintiffs “cannot now argue that any bacterial source . . . would infringe that claim.”

In Cohesive Technologies, Inc. v. Waters Corp., the Federal Circuit held that “[w]here . . . a patentee has brought what would otherwise be equivalents of a limitation into the literal scope of the claim, the doctrine of equivalents is unavailable to further broaden the scope of the claim.” The patents at issue related to High Performance Liquid Chromatography (“HPLC”), which is a “process for separating, identifying, and measuring compounds contained in a liquid.” The key claim limitation at issue referred to particles “having average diameters of greater than about 30 µm.” The Federal Court’s decision focused on the meaning of the word “about” in the phrase “about 30 µm.”

The patent owner accused the defendant’s “30 µm” HPLC columns of being within the scope of equivalents of the “about 30 µm” limitation. The Federal Circuit, however, concluded that “the word ‘about’ in the context of the written description and the claims . . . makes clear [that] ‘about 30 µm’ encompasses particle diameters that
perform the same function, in the same way, with the same result as the 30 µm particles. Thus, such equivalents are already within the literal scope of the claim and the “patentee cannot rely on the doctrine of equivalents to encompass equivalents of equivalents.”

C. The Reverse Doctrine of Equivalents

The mirror image of the doctrine of equivalents is the reverse doctrine of equivalents. The reverse doctrine of equivalents “allows a court to find no infringement even though each element of the patent’s claim literally reads on the product or process of the alleged infringer.” It is a factual determination and the test is “whether the apparently literally infringing product or process is so far changed in principle that it performs the same or similar function in a substantially different way.” The Federal Circuit “has never affirmed a finding of non-infringement under the reverse doctrine of equivalents,” and 2008 was no exception.

In Roche Palo Alto LLC v. Apotex, Inc., the defendant Apotex attempted unsuccessfully to invoke the reverse doctrine of equivalents as a defense against infringement. Plaintiff Roche asserted infringement by Apotex based on a drug formulation covered by an Apotex abbreviated new drug application (“ANDA”) that was directed to a generic version of Roche’s ACULAR LS drug. The defendant did not argue that its formulation fell outside of the literal scope of the patent; instead it argued that its formulation did not infringe under the reverse doctrine of equivalents.

The defendant argued that:

[A] person of ordinary skill in the art would recognize that the principle of [the asserted patent] is the use of [Octoxynol 40] in an amount sufficient to cause the formation of micelles and thereby provide robust stability to the formulation by preventing interactions between [ketorolac tromethamine] and [benzalkonium chloride].

According to the defendant, the concentration of Octoxynol 40 in its drug formulation “is far below the concentration required to form

854. Id. at 1372, 88 U.S.P.Q.2d (BNA) at 1916.
855. Id., 88 U.S.P.Q.2d (BNA) at 1917.
856. SCHWARTZ, supra note 706, at 169.
857. Id.
859. Id. at 1378, 87 U.S.P.Q.2d (BNA) at 1311.
860. Id. at 1374–76, 87 U.S.P.Q.2d (BNA) at 1309–11.
861. Id. at 1376, 87 U.S.P.Q.2d (BNA) at 1310.
862. Id. at 1376, 87 U.S.P.Q.2d (BNA) at 1311.
micelles. According to the defendant, its formulation was "stabilized by a completely different ingredient and mechanism, and functions in a 'substantially different way' from" Roche's formulation. The Federal Circuit, however, rejected the reverse doctrine of equivalents defense. The Federal Circuit held that the defendant had failed to properly establish the "principle" or "equitable scope of the claims" in the patented invention. The Federal Circuit noted that "[t]he principle... of the patented invention is determined in light of the specification, prosecution history, and the prior art," but stated that there was "no mention of 'micelle'"—the core of the alleged "principle" of the patent—"in the claims, specification, or prosecution history." Furthermore, the specification disclosed a formulation containing the same concentration of Octoxynol 40 as in the alleged infringing formulation. The Federal Circuit therefore held that the defendant had failed to establish a prima facie case of non-infringement under the reverse doctrine of equivalents, and that the district court had properly granted summary judgment of literal infringement.

D. Indirect Infringement

In 2008, the Federal Circuit also resolved a few cases dealing with induced infringement. Under 35 U.S.C. § 271(b), "'[w]hoever actively induces infringement of a patent shall be liable as an infringer.'" To prevail on a claim of inducement, "the patentee must show, first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement." Two years ago, in DSU Medical Corp. v. JMS Co., the Federal Circuit clarified the meaning of the intent required for induced infringement. It "requires more than just intent to cause the acts that produce direct infringement. Beyond that threshold knowledge,

863. Id., 87 U.S.P.Q.2d (BNA) at 1311.
864. Id., 87 U.S.P.Q.2d (BNA) at 1311.
865. Id. at 1378–79, 87 U.S.P.Q.2d (BNA) at 1312.
866. Id. at 1378, 87 U.S.P.Q.2d (BNA) at 1312.
867. Id., 87 U.S.P.Q.2d (BNA) at 1312.
868. Id. at 1379, 87 U.S.P.Q.2d (BNA) at 1312.
869. Id., 87 U.S.P.Q.2d (BNA) at 1312.
871. Id., 85 U.S.P.Q.2d (BNA) at 1276–77 (internal citations omitted).
873. Id. at 1306, 81 U.S.P.Q.2d (BNA) at 1247.
the inducer must have an affirmative intent to cause direct infringement.\textsuperscript{874}

In \textit{Kyocera Wireless Corp. v. International Trade Commission},\textsuperscript{875} the Federal Circuit reiterated the level of intent required for induced infringement.\textsuperscript{876} The ITC’s administrative law judge decided the case before the DSU decision, and therefore only required a showing of “the intent to cause the acts that constitute infringement.”\textsuperscript{877} The Federal Circuit explained that although proper at the time, this approach was improper after DSU.\textsuperscript{878} The court therefore vacated and remanded the ITC’s determination of induced infringement.\textsuperscript{879} The Federal Circuit also reiterated that induced infringement requires not only intent to cause the infringing acts, but also “evidence of culpable conduct, directed to encouraging another’s infringement,” i.e., specific intent to encourage infringement.\textsuperscript{880} The court did, however, note that this specific intent may be shown by circumstantial evidence.\textsuperscript{881}

In \textit{Broadcom Corp. v. Qualcomm Inc.},\textsuperscript{882} the Federal Circuit reiterated that circumstantial evidence can be sufficient to show intent for induced infringement.\textsuperscript{883} The district court had found that Qualcomm directly infringed and induced infringement of certain claims, either literally or under the doctrine of equivalents.\textsuperscript{884} The Federal Circuit agreed with the plaintiff Broadcom that substantial evidence supported the jury’s induced-infringement verdict.\textsuperscript{885} The law, the court concluded, did not require direct evidence as defendant Qualcomm argued.\textsuperscript{886} The circumstantial evidence here was enough to establish intent, which under DSU required a showing that the alleged infringer “know or should have known his actions would induce actual infringements.”\textsuperscript{887} The court noted that Qualcomm did

\textsuperscript{874} Id., 81 U.S.P.Q.2d (BNA) at 1247 (internal citations omitted).
\textsuperscript{875} 545 F.3d 1340, 89 U.S.P.Q.2d (BNA) 1057 (Fed. Cir. 2008).
\textsuperscript{876} Id. at 1354, 89 U.S.P.Q.2d (BNA) at 1067.
\textsuperscript{877} Id., 89 U.S.P.Q.2d (BNA) at 1067.
\textsuperscript{878} Id., 89 U.S.P.Q.2d (BNA) at 1067.
\textsuperscript{879} Id., 89 U.S.P.Q.2d (BNA) at 1067.
\textsuperscript{880} Id., 89 U.S.P.Q.2d (BNA) at 1067 (quoting DSU Med. Corp. v. JMS Co., 471 F.3d 1293, 1306, 81 U.S.P.Q.2d (BNA) 1238, 1247 (Fed. Cir. 2006)).
\textsuperscript{881} Id., 89 U.S.P.Q.2d (BNA) at 1067.
\textsuperscript{882} 543 F.3d 683, 88 U.S.P.Q.2d (BNA) 1641 (Fed. Cir. 2008). For discussion of this case’s implications upon permanent injunctions, see infra notes 1663–1676 and accompanying text.
\textsuperscript{883} Id. at 699–700, 88 U.S.P.Q.2d (BNA) at 1654–55.
\textsuperscript{884} Id., 88 U.S.P.Q.2d (BNA) at 1654–55.
\textsuperscript{885} Id. at 700, 88 U.S.P.Q.2d (BNA) at 1655.
\textsuperscript{886} Id., 88 U.S.P.Q.2d (BNA) at 1655.
\textsuperscript{887} Id. at 699, 88 U.S.P.Q.2d (BNA) at 1654 (quoting DSU Med. Corp. v. JMS Co., 471 F.3d 1293, 1306, 81 U.S.P.Q.2d (BNA) 1238, 1247 (Fed. Cir. 2006) (emphasis added)).
“not dispute that it was on notice of Broadcom’s patents and infringement contentions,” conceded it “worked closely with its customers to develop and support the accused products,” and did not “make changes to those products or give its customers” warnings even after suit was filed.888

Qualcomm had also argued that the district court erred by instructing the jury to consider a failure to obtain an opinion of counsel as a factor in determining intent to induce infringement.889 Qualcomm argued that the Federal Circuit’s decision in In re Seagate890 made such an instruction erroneous. According to Qualcomm, because the Federal Circuit held in Seagate that willful infringement under 35 U.S.C. § 284 would be determined based on an “objective recklessness” standard and that a defendant had no obligation to obtain opinion of counsel to defeat allegations of willful infringement, there also could be no such obligation for a defendant accused of induced infringement as the Federal Circuit had established in DSU that induced infringement put an even higher burden on the plaintiff—i.e., showing specific intent.891

The Federal Circuit, however, rejected Qualcomm’s assertion that opinion-of-counsel evidence is no longer relevant in determining intent to induce infringement.892 According to the court, Qualcomm was correct that a defendant has no affirmative duty to seek an opinion of counsel and that, as the Federal Circuit held in Knorr-Bremse Systeme Fuer Nutzfahrzeuge, GmbH v. Dana Corp.,893 a court may not impose, when a defendant fails to obtain an opinion of counsel, an “adverse inference or evidentiary presumption that such an opinion would have been unfavorable.”894 The Federal Circuit, however, held that even if an adverse inference or evidentiary presumption was inappropriate, a failure to obtain counsel’s opinion could be a factor that a jury could consider in evaluating an alleged infringer’s intent.895 “Because opinion-of-counsel evidence, along with other factors, may reflect whether the accused infringer ‘knew or should have known’ that its actions would cause another to directly infringe . . . such evidence remains relevant.”896 The court stated that

888. Id. at 700, 88 U.S.P.Q.2d (BNA) at 1655 (internal quotations omitted).
889. Id. at 698–99, 88 U.S.P.Q.2d (BNA) at 1654.
890. 497 F.3d 1360, 83 U.S.P.Q.2d (BNA) 1865 (Fed. Cir. 2007) (en banc).
892. Id., 88 U.S.P.Q.2d (BNA) at 1654.
896. Id. at 699, 88 U.S.P.Q.2d (BNA) at 1655.
just as an opinion of counsel can be used by a defendant as
exculpatory evidence with respect to intent under DSU, “failures to
procure such advice” can be circumstantial evidence used by a
plaintiff to show intent to infringe.897

The Federal Circuit also was not swayed by Qualcomm’s argument
based on Seagate. The Federal Circuit held that, whatever effect
Seagate’s objective recklessness standard may have had to limit the
relevance of opinion of counsel with respect to willful infringement,
the standard for induced infringement continued to be the “specific
intent” standard established in DSU, and on that question, opinion-of-
counsel evidence remained relevant.898

Finally, in another induced-infringement case, Symantec Corp. v.
Computer Associates International, Inc.,899 the Federal Circuit reversed a
district court’s grant of summary judgment of non-infringement.
The district court held that the patentee had not established induced
infringement because it had not shown direct infringement by third
parties.900 On appeal, the Federal Circuit vacated and remanded the
district court’s summary judgment.901 The court held that even
though the plaintiff had not produced evidence that “any particular
customer” had directly infringed, the plaintiff had shown that the
defendant encouraged customers to use the accused products and
that customers could use those products only in an infringing way.902
The plaintiff therefore had “produced sufficient circumstantial evidence
of direct infringement to create a genuine issue of material fact.”903

The Federal Circuit also addressed in 2008 “an important, and
previously unresolved, question concerning the scope of liability”
under the second form of indirect infringement—contributory
infringement under § 271(c).904 In Ricoh Co., Ltd. v. Quanta Computer
Inc., 550 F.3d 1325 (Fed. Cir. 2008), the accused infringer
manufactured an optical disk drive that, for purposes of the appeal,
was assumed to contain both (a) components that had no substantial
noninfringing use (i.e., separate hardware and embedded software
modules that necessarily performed the patented process) and
(b) components that did have substantial noninfringing uses.905 The

897. Id., 88 U.S.P.Q.2d (BNA) at 1655.
900. Id. at 1287, 86 U.S.P.Q.2d (BNA) at 1453.
901. Id. at 1299, 86 U.S.P.Q.2d (BNA) at 1461.
902. Id. at 1293, 86 U.S.P.Q.2d (BNA) at 1457.
903. Id., 86 U.S.P.Q.2d (BNA) at 1457 (emphasis added).
1577, 1585 (Fed. Cir. 2008).
905. Id., 89 U.S.P.Q.2d (BNA) at 1585.
The accused manufacturer could not be held directly liable because only its customers practiced the patented method, but the patent owner sought to hold the manufacturer liable for indirect contributory infringement under § 271(c). Section 271(c) imposes liability on anyone who sells “a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing a patented process,” if, among other things, the component, material, or apparatus is not “suitable for substantial noninfringing use.”

In a per curiam decision, the Federal Circuit held that the accused manufacturer could be held liable for contributory infringement under § 271(c). Even though the ultimate device that the accused manufacturer sold—i.e., the optical disk drive—had substantial noninfringing uses, the Federal Circuit held that the sale of the disk drive could constitute contributory infringement based on the included component that did not have substantial noninfringing uses. The court stated that under any other rule, evasion of § 271(c) “would become rather easy”: a manufacturer that wanted to sell hardware that would be used to infringe a patented process could avoid contributory liability simply by adding additional hardware that also performs another (noninfringing) process.

Judge Gajarsa dissented. He argued that, under the Federal Circuit’s prior decision in *Hodosh v. Block Drug Co.*, Inc., 833 F.2d at 1575 (Fed. Cir. 1987), the accused manufacturer could be considered, for purposes of § 271(c), to have “sold” only the optical disk drive (which had substantial noninfringing uses) and not the component. Judge Gajarsa also argued that the facts in *Ricoh* did not rise to the standard for contributory infringement established by the Supreme Court in *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltc.*, 545 U.S. at 913 (2005), which Judge Gajarsa said allowed such liability only where one could “presume an intent that a product [would] be used to infringe another’s patent” and where there was “more acute fault than the mere understanding that some of one’s products will be misused.”

906. 35 U.S.C. § 271(c).
907. 550 F.3d at 1337-38, 89 U.S.P.Q.2d (BNA) at 1586-87.
908. Id., 89 U.S.P.Q.2d (BNA) at 1586.
909. Id. at 1345, 89 U.S.P.Q.2d (BNA) at 1592.
910. Id. at 1346, 89 U.S.P.Q.2d (BNA) at 1592.
E. Section 271(e)(1): Research Exemption to Infringement

The Federal Circuit resolved two cases dealing with 35 U.S.C. § 271(e)(1), the “safe harbor” statute that protects from infringement liability the making, sale, use, or importation of a patented invention “solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use, or sale of drugs or veterinary biological products.” In Amgen, Inc. v. International Trade Commission, Amgen complained to the ITC that Roche’s importation of human erythropoietin and derivatives (collectively “EPO”) was in violation of section 337 of the Tariff Act of 1930, as amended. Amgen argued that the EPO and the process by which it was made in Europe infringed Amgen’s patents. Roche moved for summary judgment, and the Commission granted it, holding that the importation of EPO was protected by the § 271(e)(1) safe harbor. Amgen appealed the Commission’s ruling, arguing that the § 271(e)(1) safe-harbor statute did “not apply to Tariff Act violations based on foreign practice of patented processes,” and, moreover, that “not all of the imported EPO was used for the statute’s exempt purposes.” Amgen argued that the safe-harbor statute did not protect the importation at issue because liability was based, in part, on the infringement of process patents. The safe-harbor statute protects the importation of only “patented invention[s];” Amgen argued that “a process cannot be imported” and that importation of products produced offshore by an infringing process therefore would not fall within the safe harbor. Amgen also indicated that the Commission had “a long-standing . . . right” to block importation based on offshore practice of U.S. patented process and argued that Congress preserved this authority when it enacted § 271(g) in 1988. Amgen cited Congress’s statement that the addition of § 271(g) “shall not deprive the patent owner of any remedies available under subsections (a) through (f) of

913. 519 F.3d 1343, 86 U.S.P.Q.2d (BNA) 1188 (Fed. Cir. 2008).
915. Id. at 1345, 86 U.S.P.Q.2d (BNA) at 1189. A foreign process can be the basis for U.S. infringement liability under 35 U.S.C. § 271(g), which provides that importing a product “made by a process patented in the United States” constitutes infringement. 35 U.S.C. § 271(g) (2006).
916. Amgen, 519 F.3d at 1345, 86 U.S.P.Q.2d (BNA) at 1189.
917. Id., 86 U.S.P.Q.2d (BNA) at 1189.
918. Id., 86 U.S.P.Q.2d (BNA) at 1189.
919. Id. at 1346, 86 U.S.P.Q.2d (BNA) at 1190.
920. Id., 86 U.S.P.Q.2d (BNA) at 1190.
921. Id. at 1347, 86 U.S.P.Q.2d (BNA) at 1190.
According to Amgen, this showed that although the safe harbor might block process patent infringement when enforced in the district courts under § 271(g), a remedy was retained for process-patent infringement enforced under section 337. Judge Newman’s majority opinion agreed with the Commission that the safe-harbor statute protected Roche’s EPO from section 337 exclusion “not only as to infringement of Amgen’s product patents but also as to Amgen’s process patents.” According to the majority, § 271(g)’s legislative history as well as Supreme Court guidance supported the Commission’s ruling. The majority cited a congressional report directly on this issue, stating that Congress did not intend that it shall be an act of infringement to import a product which is made by a process patented in the United States “solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use, or sale of drugs.”

The Federal Circuit also cited Supreme Court statements emphasizing Congress’s broad purpose “of removing patent-based barriers to proceeding with federal regulatory approval of medically products.” The court said that this “weigh[ed] heavily against selectively withholding the § 271(e)(1) exemption depending on whether the infringement action is in the district court or the International Trade Commission.” That interpretation of this broad policy has extended § 271(e)(1) to “all uses of patented inventions that are reasonably related to the development and submission of any information under the FDCA.” The Federal Circuit therefore “affirm[ed] the Commission’s ruling that the safe harbor statute applies to process patents in actions under Section 337, when the imported product is used for the exempt purposes of § 271(e)(1).”

With respect to Amgen’s second argument—that at least some of the imported EPO was “not exempt because its actual use was not

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923. Id., 86 U.S.P.Q.2d (BNA) at 1191.
924. Id. at 1348, 86 U.S.P.Q.2d (BNA) at 1191.
927. Id., 86 U.S.P.Q.2d (BNA) at 1192.
928. Id. at 1348-49, 86 U.S.P.Q.2d (BNA) at 1192.
929. Id. at 1348, 86 U.S.P.Q.2d (BNA) at 1192 (quoting Merck KGaA v. Integra LifesciencesI, Ltd., 545 U.S. 193, 202, 74 U.S.P.Q.2d (BNA) 1801, 1805 (2005)).
930. Id. at 1349, 86 U.S.P.Q.2d (BNA) at 1192.
reasonably related to the development and submission of information— the Federal Circuit remanded the case back to the Commission to determine the exempt status of each study in which the EPO was to be used.

In his dissent, Judge Linn agreed with the majority that § 271(e)(1) was intended to protect process patents, but he argued that the statute’s protection did not extend to block the Commission’s authority to exclude imports. Judge Linn noted that “§ 271(e)(1) declares that certain activities ‘shall not be an act of infringement,’” whereas the plain language of section 337 of the Tariff Act allows the Commission to exclude products even without an act of infringement. Although a separate section, section 1337(a)(1)(B)(i), makes it unlawful to import articles that “infringe a valid and enforceable United States patent,” section 1337(a)(1)(B)(ii) prohibits importation of articles that “are made, produced, processed . . . [by] a process covered by the claims of a valid and enforceable United States patent.” According to Judge Linn, “this difference in language was not accidental,” and the legislative history showed that process claims are not within the safe-harbor statute.

In Proveris Scientific Corp. v. Innovasystems, Inc., the Federal Circuit considered whether the § 271(e)(1) safe harbor applied to the importation of products that were not themselves regulated but that were used with regulated devices. Plaintiff Proveris sued Innovasystems (“Innova”) for infringing its patent related to nasal spray pumps and inhalers. Innova’s accused device—an Optical Spray Analyzer (“OSA”)—is not FDA-regulated, but it is used with a regulated device. Innova argued that the safe-harbor statute protected the OSA devices because they were “used by third parties solely for the development and submission of information to the

931. Id. at 1349, 86 U.S.P.Q.2d (BNA) at 1192.
932. Id. at 1350, 86 U.S.P.Q.2d (BNA) at 1193.
935. Id., 86 U.S.P.Q.2d (BNA) at 1195 (quoting § 1337(a)(1)(B)(ii)).
936. Id. at 1353–54, 86 U.S.P.Q.2d (BNA) at 1195–96.
937. 536 F.3d 1256, 87 U.S.P.Q.2d (BNA) 1602 (Fed. Cir. 2008).
938. Id. at 1258, 87 U.S.P.Q.2d (BNA) at 1604.
939. Id., 87 U.S.P.Q.2d (BNA) at 1604.
940. Id. at 1259, 87 U.S.P.Q.2d (BNA) at 1604.
The district court, however, ruled as a matter of law that the safe-harbor statute did not include the OSA devices.

The Federal Circuit affirmed, noting that one of the purposes of the Hatch-Waxman Act was to eliminate the de facto extension in patent life caused by the fact that other parties could not produce competitive products upon expiration of a patent because such products required FDA pre-market approval, and a competitor ordinarily could not begin that process until after the patent expired. Section 271(e)(1) sought to eliminate that distortion "by providing a safe harbor that immunized competitors from infringement on account of making, using, offering to sell, or selling . . . a ‘patented invention solely for use reasonably related’" to an FDA submission. The basic idea behind this provision was to allow competitors to begin the regulatory approval process while the patent was still in force, followed by the market entry immediately upon patent expiration.

The Federal Circuit concluded that the OSA devices are protected by the § 271(e)(1) safe harbor because they are not subject to the FDA pre-market approval, and they thus “face[] no regulatory barriers to market entry upon patent expiration.” The defendant Innova was therefore “not a party who, prior to [§ 271(e)(1)], could be said to have been adversely affected by the [above-mentioned] distortion.” In short, because Proveris’s patented product “is not subject to a required [Federal Drug and Cosmetic Act] approval process, it does not need the safe harbor protection afforded by 35 U.S.C. § 271(e)(1).”

F. Design Patent Infringement

In Egyptian Goddess, Inc. v. Swisa, Inc., the Federal Circuit reconsidered (in an en banc proceeding) the appropriateness of its point-of-novelty test in design patent cases. The main issue before
the Court was "whether the 'point of novelty' test should continue to be used as a test for infringement of a design patent."952

The Federal Circuit began by discussing the rule of law for design patent infringement established by the Supreme Court in Gorham Co. v. White.953 In that case, the Supreme Court established the "ordinary observer test" as the proper standard to determine infringement of a design patent.954 Accordingly,

if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.955

The Federal Circuit acknowledged that, since its 1984 case, Litton Systems, Inc. v. Whirlpool Corp.,956 it has held that satisfying the ordinary-observer test is not sufficient to prove similarity.957 Rather, the court has also required patentees to satisfy a "point of novelty test," which requires that the accused design "also appropriate the novelty of the claimed design in order to be deemed infringing."958 Thus, in essence, "[f]or a design patent to be infringed . . . no matter how similar two items look, 'the accused device must appropriate the novelty in the patented device which distinguishes it from the prior art.'"959 Since its inception, the point-of-novelty test has been used both as "conjunctive" with, and "distinct" from, the ordinary-observer test.960

On appeal, the plaintiff urged the Federal Circuit to abandon the point-of-novelty test961 and replace it with an ordinary-observer test focusing on the "appearance that distinguishes the patented design from the prior art."962 The defendant attempted to defend the point-of-novelty test,963 arguing that the Supreme Court had adopted the test in an 1893 decision, Smith v. Whitman Saddle Co.964

952. Id. at 670, 88 U.S.P.Q.2d (BNA) at 1661.
953. 81 U.S. 511 (1871).
954. Egyptian Goddess, 542 F.3d at 670, 88 U.S.P.Q.2d (BNA) at 1662.
955. Id., 88 U.S.P.Q.2d (BNA) at 1662 (citing Gorham, 81 U.S. at 528).
958. Id., 88 U.S.P.Q.2d (BNA) at 1662.
960. Id. at 671, 88 U.S.P.Q.2d (BNA) at 1663.
961. Id. at 672, 88 U.S.P.Q.2d (BNA) at 1663.
962. Id., 88 U.S.P.Q.2d (BNA) at 1663.
963. Id., 88 U.S.P.Q.2d (BNA) at 1663.
964. 148 U.S. 674 (1893).
After a lengthy discussion of Whitman Saddle, the Federal Circuit concluded that “[n]othing in the Court’s opinion suggested that it was fashioning a separate point of novelty test for infringement.” The court therefore held that the point-of-novelty test “should no longer be used in the analysis of a claim of design patent infringement [. . .].” Finally, the Federal Court applied the ordinary-observer test and affirmed the summary judgment of non-infringement.

V. PATENTABILITY AND VALIDITY

Every issued patent is presumed to be valid, and each claim of a patent is “presumed valid independently of the validity of other claims.” This statutory presumption of validity arises because it is assumed that the patent examiner conducted a diligent review of the prior art and verified that all requirements of patentability were met before allowing the claims. An alleged infringer may overcome the statutory presumption of validity only upon a showing of clear and convincing evidence of invalidity.

A. Patentable Subject Matter

It is a well-known threshold requirement that, in order to qualify for patent protection, an invention must encompass patentable subject matter. The Patent Act provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or combination of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” Therefore, a patent’s validity may be challenged if the claimed subject matter does not fall within one of the four statutory classes listed above.

966. Id. at 678, 88 U.S.P.Q.2d (BNA) at 1668.
967. Id. at 680–83, 88 U.S.P.Q.2d (BNA) at 1670–72.
969. See Intervet Am., Inc. v. Kee-Vet Labs., Inc., 887 F.2d 1050, 1054, 12 U.S.P.Q.2d (BNA) 1474, 1477 (Fed. Cir. 1989) (“The presumption of validity [. . .] carries with it a presumption the examiner did his duty and knew what claims he was allowing.”).
As the Supreme Court has noted, the broad language of 35 U.S.C. § 101 reflects Congress’s intention that patentable subject matter “include anything under the sun that is made by man.”

Nevertheless, the Supreme Court’s § 101 decisions have imposed some limits. In particular, one may not obtain a patent on laws of nature, physical phenomena, abstract intellectual concepts, or mathematical formulas. In 2008, the Federal Circuit issued a key decision that addressed the line between such patent-ineligible principles and patent-eligible subject matter.

The Federal Circuit’s en banc decision in In re Bilski974 clarified the test for determining what constitutes a patentable “process” under § 101, addressing patentability in the context of a prospective business method patent.975 Bilski and his co-applicant sought a patent directed to “[i]n essence, . . . a method of hedging risk in the field of commodities trading.”976

On review, the examiner noted that the applicants had not limited their claims to implementation on a computer and concluded that the claims were not limited by any particular apparatus.977 The examiner ultimately rejected all eleven claims as unpatentable under § 101, and the Board of Patent Appeals and Interferences sustained the rejection.978

The Federal Circuit, in a 9-3 decision, affirmed the PTO’s rejection of Bilski’s claims, holding that the claims were not directed to a patent-eligible “process” under § 101.979 Writing for the majority, Chief Judge Michel explained that, while the Supreme Court has held that a claim is not a patentable “process” if it is drawn to “fundamental principles” (such as “laws of nature, natural phenomena, [or] abstract ideas”), a process may be patentable if it is drawn to a particular “application” of a fundamental principle.980

This distinction is designed to prevent the issuance of claims that seek to pre-empt entirely others’ use of a law of nature or abstract idea.981 According to the majority, the Supreme Court, particularly through its decisions in Diamond v. Diehr982 and Gottschalk v. Benson,983

975. Id. at 943, 88 U.S.P.Q.2d (BNA) at 1385.
976. Id. at 949, 88 U.S.P.Q.2d (BNA) at 1387.
977. Id. at 950, 88 U.S.P.Q.2d (BNA) at 1388.
978. Id., 88 U.S.P.Q.2d (BNA) at 1388.
979. Id. at 949, 88 U.S.P.Q.2d (BNA) at 1388.
980. Id. at 952–53, 88 U.S.P.Q.2d (BNA) at 1389–90 (emphasis omitted) (citing Diamond v. Diehr, 450 U.S. 175, 185, 187, 209 U.S.P.Q. (BNA) 1, 7, 8 (1981)).
981. Id. at 953, 88 U.S.P.Q.2d (BNA) at 1390.
“enunciated a definitive test to determine whether a process claim is tailored narrowly enough to encompass only a particular application of a fundamental principle rather than to pre-empt the principle itself. That test is the “machine-or-transformation” test, under which a process is “surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.”

Adopting this test, the court rejected as “inadequate” “several other purported articulations of § 101 tests,” including the Freeman-Walter-Abele test, the “technological arts test,” and the “useful, concrete, and tangible result” test set forth in State Street Bank & Trust Co. v. Signature Financial Group, Inc. With respect to the last test, the Federal Circuit noted, without explicitly overruling its decision in State Street, that “those portions of our opinions in State Street and AT&T [Corp. v. Excel Communications, Inc.] relying solely on a ‘useful, concrete and tangible result’ analysis should no longer be relied on.” The Federal Circuit further rejected any “categorical exclusions”—such as for all business

984. In re Bilski, 545 F.3d at 954, 88 U.S.P.Q.2d (BNA) at 1391.
985. Id. at 954, 88 U.S.P.Q.2d (BNA) at 1391 (referencing Benson, 409 U.S. at 70, 175 U.S.P.Q. (BNA) at 676; Diehr, 450 U.S. at 192, 209 U.S.P.Q. (BNA) at 6; Parker v. Flook, 437 U.S. 584, 589 n.9, 198 U.S.P.Q. (BNA) 193, 197 n.9 (1978); Cocrane v. Deener, 94 U.S. 780, 788 (1876)).
986. Id. at 958, 88 U.S.P.Q.2d (BNA) at 1394.
987. Id. at 959, 88 U.S.P.Q.2d (BNA) at 1394. Described and refined in In re Freeman, 573 F.2d 1237, 197 U.S.P.Q. (BNA) 464 (C.C.P.A. 1978). In re Walter, 618 F.2d 758, 205 U.S.P.Q. (BNA) 397 (C.C.P.A. 1980), and In re Abele, 684 F.2d 902, 214 U.S.P.Q. (BNA) 682 (C.C.P.A 1982), this test required two separate steps: “(1) determining whether the claim recites an ‘algorithm’ within the meaning of Benson, then (2) determining whether that algorithm is ‘applied in any manner to physical elements or process steps.’” In re Bilski, 545 F.3d at 959, 88 U.S.P.Q.2d (BNA) at 959 (citing Abele, 684 F.2d at 905–07, 214 U.S.P.Q. (BNA) at 686).
988. In re Bilski, 545 F.3d at 960, 88 U.S.P.Q.2d (BNA) at 1395. Urged by some amici, the technological arts test would, in the Federal Circuit’s view, be unclear because the meanings of the terms ‘technological arts’ and ‘technology’ are both ambiguous and ever-changing. And no such test has ever been explicitly adopted by the Supreme Court; this court, or our predecessor court.” Id., 88 U.S.P.Q.2d (BNA) at 1396.
989. Id. at 959–60, 88 U.S.P.Q.2d (BNA) at 1398.
990. 149 F.3d 1368, 47 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1998).
992. The State Street decision, which involved a claim directed to a data processing system for managing a portfolio of mutual funds, held that claims drawn toward methods of conducting business should be “treated like any other process claims” under § 101. 149 F.3d at 1377, 47 U.S.P.Q.2d (BNA) at 1604.
method patents—“beyond those for fundamental principles already identified by the Supreme Court.”

Having concluded that the machine-or-transformation test was the proper test to apply, the Federal Circuit then elaborated upon the “transformation” prong that was at issue in the case. To qualify as a patent-eligible process under the “transformation” prong, the “transformation must be central to the purpose of the claimed process” and may not constitute merely “‘insignificant postsolution [or extra-solution] activity.’” In addition, the “article” transformed should be drawn from one of two categories of items: The first (and most “self-evident”) category consists of “physical objects or substances” that undergo chemical or physical transformations. The second category consists of “electronic signals and electronically-manipulated data” that represent physical objects or substances. As an example of the latter category, the court cited its mixed decision in In re Abele, in which it deemed unpatentable a claim directed to a process of graphically displaying variances in data, but deemed patentable a separate claim specifying that such data constituted “X-ray attenuation data produced in a two dimensional field by a computed tomography scanner.” Thus, because the latter claim encompassed a transformation of raw data into “a particular visual depiction of a physical object” (e.g., a bone or internal organ), it constituted patentable subject matter.

The Federal Circuit held that Bilski’s claims did not satisfy the machine-or-transformation test because they did not transform any article to a different state or thing. The applicants’ process, as claimed, involved simply an exchange of legal rights to purchase a

995. Id. at 960, 88 U.S.P.Q.2d (BNA) at 1395.
996. The court declined to elaborate upon the “machine” component of the test. Id. at 962, 88 U.S.P.Q.2d (BNA) at 1396 (“As to machine implementation, Applicants themselves admit that the language of claim 1 does not limit any process step to any specific machine or apparatus. . . . We leave to future cases the elaboration of the precise contours of machine implementation, as well as the answers to particular questions, such as whether or when recitation of a computer suffices to tie a process claim to a particular machine.”).
997. Id. at 962, 88 U.S.P.Q.2d (BNA) at 1396.
998. Id. at 957 & n.14, 88 U.S.P.Q.2d (BNA) at 1393 & n.14 (citing Diamond v. Diehr, 450 U.S. 185, 191–92, 209 U.S.P.Q. (BNA) 1, 10 (1981)). In addition, the Federal Circuit specified that Diehr further held that “mere field-of-use limitations are generally insufficient to render an otherwise ineligible process claim patent-eligible.” Id. at 957, 88 U.S.P.Q.2d (BNA) at 1393.
999. Id. at 962, 88 U.S.P.Q.2d (BNA) at 1396.
1000. Id. at 962–63, 88 U.S.P.Q.2d (BNA) at 1397.
1001. Id. at 962–63, 88 U.S.P.Q.2d (BNA) at 1397 (citing In re Abele, 684 F.2d 902, 908–09, 214 U.S.P.Q. (BNA) 682, 687 (C.C.P.A. 1982)).
1002. Id. at 963, 88 U.S.P.Q.2d (BNA) at 1397.
1003. Id., 88 U.S.P.Q.2d (BNA) at 1398.
particular commodity at a particular time and price. As such, it did not involve a patent-eligible transformation under § 101.

"Purported transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances." This, coupled with the applicants' admission that their claims failed to meet the "machine" prong of the test, rendered Bilski's claims unpatentable under § 101.

Judge Dyk, joined by Judge Linn, wrote a separate concurrence, which reviewed the legislative history of the patent statute and concluded that, under the statute, the only patent-eligible processes are those concerning other types of patentable subject matter, i.e., manufactures, machines, or compositions of matter. Judge Newman's dissent disagreed with the concurrence's reading of the legislative history to preclude entirely patents on "business method[s]" or "human activity." In addition, Judge Newman criticized the majority for "usurp[ing] the legislative role" and "redefining the word ‘process’ in the patent statute" in a way that contradicted Supreme Court and Federal Circuit precedent, thereby creating uncertainty in the law and threatening to impede technological progress by diminishing inventors' incentives.

The final two dissents expressed disagreement with the majority's enunciation of the machine-or-transformation test, while nevertheless

1004. Id. at 964, 88 U.S.P.Q.2d (BNA) at 1398.
1005. Id. at 963–64, 88 U.S.P.Q.2d (BNA) at 1398.
1006. Id., 88 U.S.P.Q.2d (BNA) at 1398.
1007. Id. at 964, 88 U.S.P.Q.2d (BNA) at 1398.
1008. Id. at 966–76, 88 U.S.P.Q.2d (BNA) at 1400–07 (Dyk, J., concurring).
1009. Id. at 966, 974, 88 U.S.P.Q.2d (BNA) at 1400, 1407.
1010. Id. at 989, 88 U.S.P.Q.2d (BNA) at 1417 (Newman, J., dissenting); see also id. at 985–89, 88 U.S.P.Q.2d (BNA) at 1414–17 (describing the English Statute of Monopolies and the English common law, and contrasting them with U.S. patent law in order to argue that the English laws do not inform the interpretation of § 101).
1011. Id. at 997, 88 U.S.P.Q.2d (BNA) at 1424.
1012. Id. at 977, 971, 88 U.S.P.Q.2d (BNA) at 1407, 1411. In particular, according to Judge Newman, the Supreme Court's decision in Diehr "did not propose the ‘machine-or-transformation’ test to limit patentable processes under § 101." Id. at 981, 88 U.S.P.Q.2d (BNA) at 1411.
1013. See id. at 994–95, 88 U.S.P.Q.2d (BNA) at 1421–22 (arguing that the majority's opinion upset settled expectations and failed to answer numerous questions arising from the machine-or-transformation test, such as what types of transformations may qualify as being "central to the purpose of the claimed process," whether "software instructions implemented on a general purpose computer are deemed ‘tied’ to a particular machine," and whether the inventions of State St. and AT & T v. Excel would pass the new test).
1014. See id. at 997, 88 U.S.P.Q.2d (BNA) at 1424 (“The court's decision affects present and future rights and incentives . . . .”).
agreeing (implicitly or explicitly) that Bilski’s claims constituted unpatentable subject matter. Judge Mayer dissented on the grounds that the majority opinion did not go far enough to limit patentability under § 101, and he criticized the majority for adopting a test that is “too easily circumvented.”

According to Judge Mayer, “State Street and AT&T should be overruled” because “[a]ffording patent protection to business methods lacks constitutional and statutory support, serves to hinder rather than promote innovation and usurps that which rightfully belongs in the public domain.”

Finally, Judge Rader’s dissent argued that the majority should have affirmed the Board’s rejection simply “[b]ecause Bilski claims merely an abstract idea.” This conclusion is supported by a direct reading of Supreme Court precedent, which holds that “the only limits on [patent] eligibility are inventions that embrace natural laws, natural phenomena, and abstract ideas.” However, wrote Judge Rader, the majority “expands (transforms?) some Supreme Court language into rules that defy the Supreme Court’s own rule,” unduly limit the scope of patentable subject matter, and “link[] patent eligibility to the age of iron and steel at a time of subatomic particles and terabytes.”

The Federal Circuit’s order in In re Petrus A.C.M. Nuijten1022 denied a request to rehear the dispute underlying its 2007 decision in In re Nuijten,1023 in which the court affirmed the PTO’s determination that claims directed to an electromagnetic “signal” were unpatentable under § 101. Judge Linn, joined by Judges Newman and Rader, dissented from the court’s order. Judge Linn would have reheard the case, as it “raise[d] important questions about the relationship between § 101 and § 103.” He also argued that the panel majority

1. Id. at 998–1011, 88 U.S.P.Q.2d (BNA) at 1424–34 (Mayer, J., dissenting); id. at 1011-15, 88 U.S.P.Q.2d (BNA) at 1434–37 (Rader, J., dissenting).
2. Id. at 1008, 88 U.S.P.Q.2d (BNA) at 1432 (Mayer, J., dissenting).
3. Id. at 998, 88 U.S.P.Q.2d (BNA) at 1424. In particular, Judge Mayer wrote, it was “highly unlikely that the framers . . . intended to grant patent protection to methods of conducting business,” in light of their keen awareness of the “odious” monopolies on trade that led to the seventeenth-century English Statute of Monopolies. Id. at 998–99, 88 U.S.P.Q.2d (BNA) at 1424–25.
4. Id. at 1011, 88 U.S.P.Q.2d (BNA) at 1434 (Rader, J., dissenting).
5. Id. at 1012–13, 88 U.S.P.Q.2d (BNA) at 1435.
6. Id. at 1013, 88 U.S.P.Q.2d (BNA) at 1436.
7. Id. at 1011, 88 U.S.P.Q.2d (BNA) at 1434.
9. See id. at 1357, 84 U.S.P.Q.2d (BNA) at 1502 (explaining that electromagnetic signals are devoid of matter and they are not “manufacture[s]” under § 101) (alteration in original).
had too narrowly construed the scope of a § 101 “manufacture” to exclude “transient or ‘fleeting’” things like signals, in conflict with applicable precedent. Following the Federal Circuit’s denial of the petition for rehearing, the Supreme Court denied the appellant’s petition for a writ of certiorari.

B. Anticipation

To be patentable, an invention must be “new.” If the claimed subject matter of a patent is not “new,” it is said to be “anticipate[d]” by the prior art. In order to invalidate a claim on the grounds of anticipation, a challenger must establish that every element of the claim was previously described in a single prior art reference, either expressly or inherently. In contrast with the standard for obviousness, discussed below in Section C, the standard for anticipation is one of strict identity, requiring that the prior reference set forth all claimed elements “arranged as in the claim.” Section 102 of the patent statute establishes various ways in which a patent may be invalidated due to anticipation, among which are (1) disclosure in a prior patent or printed publication and (2) disclosure by public use or sale.

1. Patents and printed publications

Under § 102 of the patent statute,

[a person shall be entitled to a patent unless—

(a) the invention was . . . patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

1026. See id. at 1362, 85 U.S.P.Q.2d (BNA) at 1928 (discussing prior decisions’ broader “framework” for delineating patentable “manufactures,” such as those in Diamond v. Chakrabarty, 447 U.S. 303, 309, 206 U.S.P.Q. (BNA) 193, 197 (1980), and In re Breslow, 616 F.2d 516, 205 U.S.P.Q. (BNA) 221 (C.C.P.A. 1980)).


1028. See 35 U.S.C. §§ 101–102 (2008) (specifying in § 101 that only a “new and useful” invention—or a “new and useful” improvement upon an invention—is entitled to patent protection (emphasis added)). Section 102 defines various sources of prior art that may negate novelty, as discussed in further detail below. Id. § 102.


1030. See id. at 1350, 60 U.S.P.Q.2d (BNA) at 1429 (“A prior art reference anticipates a patent claim if the reference discloses, either expressly or inherently, all of the limitations of the claim.”) (citing Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771, 218 U.S.P.Q. 781, 789 (Fed Cir. 1983)).


1033. 35 U.S.C. § 102(b).
(b) the invention was patented or described in a printed publication in this or a foreign country . . . more than one year prior to the date of the application for patent in the United States.\textsuperscript{1034}

These requirements are “grounded on the principle that once an invention is in the public domain, it is no longer patentable by anyone.”\textsuperscript{1035} In the case of printed publications, which are not necessarily “published” to the same degree as issued patents, anticipation depends upon whether the particular reference was “publicly available” or “publicly accessible” to interested skilled artisans prior to the “critical date” (i.e., more than one year prior to the date the application was filed).\textsuperscript{1036} The determination of whether a document constitutes a printed publication under § 102 is a question of law based upon the underlying facts of each particular case.\textsuperscript{1037}

In Leggett & Platt Inc. v. VUTEk, Inc.,\textsuperscript{1038} the Federal Circuit applied the doctrine of inherent anticipation to affirm summary judgment of invalidity over a previously filed patent. Plaintiff Leggett & Platt (“L&P”) instituted an infringement action against defendant VUTEk, a manufacturer of large-scale commercial printers, for alleged infringement of L&P’s ‘518 patent entitled “Method and Apparatus for Ink Jet Printing on Rigid Panels.”\textsuperscript{1039} VUTEk argued that the asserted ‘518 claims were anticipated by VUTEk’s ‘823 patent, which described a printer carriage that used UV radiation to set ink after it is deposited on a surface.\textsuperscript{1040} Although the parties agreed that the ‘823 reference anticipated numerous limitations of the ‘518 patent, they disputed whether it disclosed an assembly that is “effective to impinge sufficient UV light on the ink to substantially cure the ink,” as required by the ‘518 patent.\textsuperscript{1041}

\begin{itemize}
  \item \textsuperscript{1034} 35 U.S.C. § 102.
  \item \textsuperscript{1035} In re Hall, 781 F.2d 897, 898, 228 U.S.P.Q. (BNA) 453, 455 (Fed. Cir. 1896) (citing In re Bayer, 568 F.2d 1357, 1361, 196 U.S.P.Q. 670, 675 (C.C.P.A. 1978)).
  \item \textsuperscript{1036} Bruckelmyer v. Ground Heaters, Inc., 445 F.3d 1374, 1377–78, 78 U.S.P.Q.2d (BNA) 1684, 1687 (Fed. Cir. 2006); In re Hall, 781 F.2d at 898–99, 228 U.S.P.Q. (BNA) at 455.
  \item \textsuperscript{1037} See e.g., Cooper Cameron Corp. v. Kvaerner Oilfield Prods., Inc., 291 F.3d 1317, 1321, 62 U.S.P.Q.2d (BNA) 1846, 1849 (Fed. Cir. 2002) (“Whether an asserted anticipatory document qualifies as a ‘printed publication’ under § 102 is a legal conclusion based on underlying factual determinations.”); see also In re Hall, 781 F.2d at 899, 228 U.S.P.Q. (BNA) at 455 (“The § 102 publication bar is a legal determination based on underlying fact issues, and therefore must be approached on a case-by-case basis”).
  \item \textsuperscript{1038} 537 F.3d 1349, 87 U.S.P.Q.2d (BNA) 1947 (Fed. Cir. 2008).
  \item \textsuperscript{1039} Id. at 1350, 87 U.S.P.Q.2d (BNA) at 1948.
  \item \textsuperscript{1040} Id. at 1352, 87 U.S.P.Q.2d (BNA) at 1949.
  \item \textsuperscript{1041} Id. at 1353–54, 87 U.S.P.Q.2d (BNA) at 1950.
\end{itemize}
In affirming the district court’s judgment of invalidity, the Federal Circuit relied on evidence showing that the ‘823 reference disclosed light emitting diodes (“LEDs”) that used UV energy to cure the ink about 75–80% when used as indicated.\textsuperscript{1042} Under the strict summary judgment standard, the court was unable to hold, as a matter of law, that seventy-five to eighty percent cured constituted “substantially cure[d]” as that term was construed by the district court.\textsuperscript{1043} Nevertheless, the Federal Circuit held that, while the ‘823 reference may not have expressly disclosed LEDs that “substantially cure[d]” ink, “it inherently disclose[d] LEDs that [were] ‘effective to’ do so.”\textsuperscript{1044} Therefore, the prior art reference anticipated the asserted claims, rendering them invalid.\textsuperscript{1045}

In \textit{Net MoneyIN, Inc. v. Verisign, Inc.},\textsuperscript{1046} the Federal Circuit reversed a summary judgment of anticipation on the grounds that the district court had improperly combined elements from two separate examples disclosed within a single prior art reference. The claim at issue recited a payment system for processing credit card transactions over the Internet and comprised five “links” between various participating entities (e.g., between a customer computer and a vending computer, between a customer computer and a payment processing computer).\textsuperscript{1047} On defendant’s motion for summary judgment, the district court concluded that the claim was invalidated by a single prior art reference, the iP reference, which included all five of the claimed links, albeit in two separately disclosed examples.\textsuperscript{1048}

On appeal, the Federal Circuit ruled that the district court had incorrectly applied the law of anticipation, under which a prior art reference does not anticipate unless it “not only disclose[s] all elements of the claim within the four corners of the document, but . . . also disclose[s] those elements ‘arranged as in the claim.’”\textsuperscript{1049} This means, the court held,

\begin{quote}
that unless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the
\end{quote}

\begin{footnotes}
\textsuperscript{1042} Id. at 1354, 87 U.S.P.Q.2d (BNA) at 1951.
\textsuperscript{1043} Id. at 1354, 87 U.S.P.Q.2d (BNA) at 1951.
\textsuperscript{1044} Id. at 1354–55, 87 U.S.P.Q.2d (BNA) at 1951.
\textsuperscript{1045} Id. at 1356, 87 U.S.P.Q.2d (BNA) at 1953.
\textsuperscript{1046} 545 F.3d 1359, 88 U.S.P.Q.2d (BNA) 1751 (Fed. Cir. 2008).
\textsuperscript{1047} Id. at 1362, 1368–69, 88 U.S.P.Q.2d (BNA) at 1757–58.
\textsuperscript{1048} Id. at 1369, 88 U.S.P.Q.2d (BNA) at 1758.
\textsuperscript{1049} Id. at 1369, 88 U.S.P.Q.2d (BNA) at 1758 (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548, 220 U.S.P.Q. (BNA) 193, 198 (Fed. Cir. 1983)).
\end{footnotes}
claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.\textsuperscript{1050}

In the present case, the iKP reference disclosed two separate systems for online credit card payment, neither of which contained all five links combined or arranged in the same way as in the asserted claim.\textsuperscript{1051} Because it was erroneous to combine different elements of the separate systems merely because they all appeared within the same prior art reference, the district court’s grant of summary judgment of invalidity was reversed.\textsuperscript{1052}

In \textit{Sanofi-Synthelabo v. Apotex, Inc.},\textsuperscript{1053} the court affirmed the validity of a patent on a dextrorotatory isomer, where prior patents describing its chemical racemate did not sufficiently disclose or enable the separation of the particular isomer claimed.\textsuperscript{1054} The patent at issue covered a chemical compound commonly known as clopidogrel bisulfate, which is sold under the brand name Plavix to treat and prevent blood clots.\textsuperscript{1055} In particular, the asserted claim recited the “dextrorotatory isomer”—one of a pair of stereoisomers of a compound, which is identical to its counterpart (the levo-rotatory isomer) in all aspects except its orientation in three-dimensional space.\textsuperscript{1056} The racemate—a combination of both stereoisomers—was disclosed in two prior patents as part of a general class of compounds.\textsuperscript{1057} In response to allegations of infringement, the alleged infringer argued that the prior disclosure of the racemate anticipated the asserted claims, rendering them invalid.\textsuperscript{1058} The district court held that the prior art’s disclosure of a particular genus of compounds did not anticipate the specific isolated stereoisomer claimed, and that the earlier patent did not sufficiently enable one of ordinary skill to make the invention without undue experimentation.\textsuperscript{1059}

The Federal Circuit agreed with the district court’s determination that the references did not constitute anticipating disclosures of the dextrorotatory isomer, where they contained only general statements that the compounds (including the racemate)
consisted of stereoisomers. As noted in Net MoneyIN, an anticipating reference must disclose all elements of a claim “arranged as in the claim” without requiring one of ordinary skill to pick, choose, and combine various elements not directly related to each other in the cited reference. In addition, the Federal Circuit held that the district court did not err when it concluded that the prior art references were not adequately enabling. Anticipation “requires the specific description as well as enablement of the subject matter at issue.” As the court noted, “[a]ny presumption of enablement of prior art does not exclude consideration of whether undue experimentation would be required to achieve enablement.” In this case, the evidence established that the process of separating stereoisomers (into their dextrorotatory and levo-rotatory forms) was known to be both difficult and unpredictable, thus requiring substantial experimentation even by those skilled in the art. Therefore, there was no clear error in the district court’s finding that the prior art reference would not have enabled a skilled artisan to isolate the dextrorotatory isomer of clopidogrel.

Similarly, the court in Impax Laboratories, Inc. v. Aventis Pharmaceuticals, Inc. affirmed the district court’s determination that a prior art reference did not anticipate claims directed to a drug treatment, where the reference was not enabling. According to the Federal Circuit, “the trial court’s findings properly support[ed] its conclusion that an ordinarily skilled artisan would have needed to experiment unduly to gain possession of the invention.” The asserted claims were directed to the use of riluzole to treat amyotrophic lateral sclerosis (“ALS”) or Lou Gehrig’s disease. The record established that the alleged prior art patent, which disclosed several diseases and many thousands of compounds, only made passing reference to riluzole, without discussing its use as a treatment

1060. Id. at 1084, 89 U.S.P.Q.2d (BNA) at 1375.
1061. Id. at 1083, 89 U.S.P.Q.2d (BNA) at 1375 (citing Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1369, 88 U.S.P.Q.2d 1751, 1758 (Fed. Cir. 2008)).
1063. Id. at 1085, 89 U.S.P.Q.2d (BNA) at 1376–77.
1064. Id. at 1083, 89 U.S.P.Q.2d (BNA) at 1375.
1065. Id. at 1085, 89 U.S.P.Q.2d (BNA) at 1376.
1066. Id., 89 U.S.P.Q.2d (BNA) at 1376.
1068. 545 F.3d 1312, 88 U.S.P.Q.2d (BNA) 1381 (Fed. Cir. 2008).
1069. Id. at 1315–16, 88 U.S.P.Q.2d (BNA) at 1384.
1070. Id. at 1315, 88 U.S.P.Q.2d (BNA) at 1384.
1071. Id. at 1314, 88 U.S.P.Q.2d (BNA) at 1382.
Moreover, the dosage guidelines in the alleged prior art reference were general and provided insufficient guidance regarding a treatment regimen for ALS. The reference also failed to provide working examples. Therefore, the Federal Circuit concluded, the reference did not enable a person of ordinary skill in the art to use riluzole as a treatment for ALS, and the patent was not invalid.

In PowerOasis, Inc. v. T-Mobile USA Inc., the Federal Circuit considered whether the presumption of patent validity extends to the question of priority date. PowerOasis asserted two patents that derived from a June 2000 continuation-in-part ("CIP") application, which itself derived from an original application filed in February 1997. The alleged infringer, T-Mobile, argued that the asserted claims were anticipated by the MobileStar Network, which was in public use more than one year prior to the filing of the CIP application. Because PowerOasis conceded that the MobileStar Network included all the limitations of the asserted claims, PowerOasis argued that the claims were entitled to the priority date of the original 1997 application, which predated the MobileStar Network. The district court placed the burden of proof on PowerOasis to establish entitlement to the earlier priority date. After determining that the original patent's written description did not adequately disclose the later-issued CIP claims, the district court granted T-Mobile's motion for summary judgment of invalidity due to anticipation.

Affirming the decision on appeal, the Federal Circuit rejected PowerOasis’s assertion that the presumption of validity should also include a presumption that CIP claims must be accorded the earliest effective filing date. In the present case, the PTO had made no determination regarding the priority date of the claims, either in the context of a rejection or in the context of an interference. The court explained: “When neither the PTO nor the Board has previously considered priority, there is simply no reason to presume

1072 Id. at 1315–16, 88 U.S.P.Q.2d (BNA) at 1384.
1073 Id. at 1316, 88 U.S.P.Q.2d (BNA) at 1384.
1074 Id. at 1315–16, 88 U.S.P.Q.2d (BNA) at 1384.
1075 Id. at 1316, 88 U.S.P.Q.2d (BNA) at 1384.
1077 Id. at 1301, 86 U.S.P.Q.2d (BNA) at 1386.
1078 Id. at 1301–02, 86 U.S.P.Q.2d (BNA) at 1386.
1079 Id. at 1302–03, 86 U.S.P.Q.2d (BNA) at 1386.
1080 Id. at 1303, 86 U.S.P.Q.2d (BNA) at 1388.
1081 Id., 86 U.S.P.Q.2d (BNA) at 1387.
1082 Id. at 1304, 86 U.S.P.Q.2d (BNA) at 1388.
1083 Id. at 1304–05, 86 U.S.P.Q.2d (BNA) at 1388–89.
that claims in a CIP application are entitled to the effective filing date of an earlier filed application.\(^{1084}\)

That conclusion, the court explained, did not alter T-Mobile’s burden, as the moving party, to prove invalidity by clear and convincing evidence.\(^{1085}\) Because PowerOasis did not dispute that the MobileStar Network was in public use more than one year prior to the filing of the CIP application, and it conceded that the MobileStar Network would constitute § 102(b) prior art if not afforded the earlier filing date, T-Mobile had met its burden.\(^{1086}\) Therefore, “the burden was on PowerOasis to come forward with evidence to the contrary,”\(^{1087}\) i.e., establishing entitlement to an earlier priority date.\(^{1088}\) Upon review of the record, the Federal Circuit agreed with the district court’s determination that the asserted claims were not entitled to the earlier filing date because the original written description did not support the later-issued asserted claims.\(^{1089}\)

The Federal Circuit reached a similar conclusion in Technology Licensing Corp. v. Videotek, Inc.,\(^{1090}\) when it affirmed the district court’s judgment that certain asserted claims were not entitled to an earlier filing date and were therefore invalid over the prior art.\(^{1091}\) The court also clarified the burdens of proof raised in PowerOasis, distinguishing between the burden of persuasion (“the ultimate burden assigned to a party who must prove something to a specified degree”), and the burden of production, also known as the burden of “going forward with evidence.”\(^{1092}\) Because the patent statute imposes a presumption of validity,

\[\text{a challenger has the burden of persuasion to show by clear and convincing evidence that the contrary is true. That ultimate burden never shifts, however much the burden of going forward may jump from one party to another as the issues in the case are raised and developed.}\]

Therefore, the court explained,

\[\text{PowerOasis says nothing more than, and should be understood to say, that once a challenger (the alleged infringer) has introduced sufficient evidence to put at issue whether there is prior art alleged}\]

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1084. Id. at 1305, 86 U.S.P.Q.2d (BNA) at 1389.
1085. Id., 86 U.S.P.Q.2d (BNA) at 1389.
1086. Id., 86 U.S.P.Q.2d (BNA) at 1389.
1087. Id., 86 U.S.P.Q.2d (BNA) at 1389.
1088. Id. at 1305–06, 86 U.S.P.Q.2d (BNA) at 1389.
1089. Id. at 1306–10, 86 U.S.P.Q.2d (BNA) at 1389–94.
1091. Id. at 1320, 88 U.S.P.Q.2d (BNA) at 1867–68.
1092. Id. at 1326–27, 88 U.S.P.Q.2d (BNA) at 1873.
1093. Id. at 1329, 88 U.S.P.Q.2d (BNA) at 1874.
to anticipate the claims being asserted, prior art that is dated earlier than the apparent effective date of the asserted patent claim, the patentee has the burden of going forward with evidence and argument to the contrary.\(^{1094}\)

In *SRI International, Inc. v. Internet Security Systems, Inc.*,\(^{1095}\) the Federal Circuit vacated and remanded the district court’s summary judgment of invalidity on four SRI patents, because there was insufficient evidence to establish that an SRI prior art paper was publicly accessible—and thus a “printed publication”—under § 102(b).\(^{1096}\) The patents at issue pertained to methods for securing computer systems and detecting suspicious network activity.\(^{1097}\) SRI had described its invention in a paper analyzing the live traffic of TCP/IP gateways—the “Live Traffic” paper.\(^{1098}\) Approximately one year and three months before SRI filed the priority patent application, one of the inventors emailed the Live Traffic paper to a program chair at the Internet Society, which was soliciting papers for an upcoming symposium.\(^{1099}\) The email noted that the Live Traffic paper would also be available on SRI’s file transfer protocol (“FTP”) server, at a particular FTP address.\(^{1100}\) In SRI’s later patent infringement action, the defendants moved for summary judgment that all of the patents were invalidated by the prior art Live Traffic paper.\(^{1101}\) The district court granted the motion, holding that the Live Traffic paper constituted a “printed publication” under § 102(b) and thus anticipated the claims of the patents-in-suit.\(^{1102}\) Vacating and remanding the district court’s decision as to the Live Traffic paper,\(^{1103}\) the Federal Circuit held that the record contained insufficient factual support for defendants’ assertion that the paper was publicly accessible by virtue of its location on the FTP server.\(^{1104}\) Like an uncatalogued graduate thesis stored in a remote library

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1094. Id. at 1328–29, 88 U.S.P.Q.2d (BNA) at 1874.
1096. Id. at 1195, 85 U.S.P.Q.2d (BNA) at 1496.
1097. Id. at 1188, 85 U.S.P.Q.2d (BNA) at 1490.
1098. Id. at 1188, 1190, 85 U.S.P.Q.2d (BNA) at 1490, 1492.
1099. Id. at 1190, 85 U.S.P.Q.2d (BNA) at 1492.
1100. Id., 85 U.S.P.Q.2d (BNA) at 1492.
1101. Id. at 1192, 85 U.S.P.Q.2d (BNA) at 1493.
1102. Id., 85 U.S.P.Q.2d (BNA) at 1493.
1103. Id. at 1198, 85 U.S.P.Q.2d (BNA) at 1498. The court also affirmed a portion of the district court’s decision, in which it granted summary judgment of invalidity as to one of the patents on the grounds that a separate publication—the EMERALD 1997 paper—anticipated the claims. Id. at 1192–94, 85 U.S.P.Q.2d (BNA) at 1493–95.
1104. Id. at 1195, 85 U.S.P.Q.2d (BNA) at 1496.
the Live Traffic paper was placed on SRI's own FTP server without an index, catalogue, or any other research tools. Unlike posters displayed at a publicized professional conference, the Live Traffic paper was posted to a proprietary FTP server and known only to a handful of non-SRI individuals charged with peer-reviewing the unfinished paper for future publication. It was thus more akin to "posters at a vacant and unpublicized conference." Although the record showed seven prior instances in which SRI directed a person to other documents within the same subdirectory, there was "no suggestion" that such individuals could freely navigate through the directory structure or that they "would—unprompted—look there for an [entirely separate] unpublicized paper with a relatively obscure filename."

Judge Moore dissented, arguing that the court should have affirmed the district court's ruling of invalidity based on the Live Traffic paper. In particular, she argued that the defendants' unrefuted evidence indicated that SRI's FTP server was navigable and used by the cyber security community at the relevant time period. She maintained that "[t]his case is quite unlike the uncatalogued, unshelved thesis in a general university library" because SRI placed the paper on an FTP server used for cyber security, in a subdirectory named for a well-known cyber security project, with a file name that abbreviated an annual cyber security symposium. Moreover, the factors governing public dissemination—length of time available (seven days), the expertise of the target audience (sophisticated computer scientists who knew how to use the FTP server), reasonable expectation of copying (no confidentiality labels or protective measures to dissuade copying), and ease of copying (simple in FTP tool)—supported the conclusion that the Live Traffic paper was publicly available prior to the critical date.

1105. See In re Bayer, 568 F.2d 1357, 1358-59, 196 U.S.P.Q. (BNA) 670, 673 (C.C.P.A. 1978) (applicant's uncataloged, unshelved thesis was not a "publication").
1106. Id. at 1196, 85 U.S.P.Q.2d (BNA) at 1496.
1107. See In re Klopfenstein, 380 F.3d 1345, 1347-50, 72 U.S.P.Q.2d (BNA) 1117, 1117-20 (Fed. Cir. 2004) (describing the slide presentation given by applicants at a meeting of the American Association of Cereal Chemists, which was printed and pasted on poster boards to be displayed for the next two-and-a-half days).
1108. Id. at 1196–97, 85 U.S.P.Q.2d (BNA) at 1497.
1109. Id. at 1197, 85 U.S.P.Q.2d (BNA) at 1497.
1110. Id., 85 U.S.P.Q.2d (BNA) at 1497.
1111. Id., 85 U.S.P.Q.2d (BNA) at 1497.
1112. Id. at 1198, 85 U.S.P.Q.2d (BNA) at 1498 (Moore, J., dissenting in part).
1113. Id. at 1200, 85 U.S.P.Q.2d (BNA) at 1499.
1114. Id. at 1202, 85 U.S.P.Q.2d (BNA) at 1501.
1115. Id. at 1201–02, 85 U.S.P.Q.2d (BNA) at 1500–01.
1116. Id. at 1202–05, 85 U.S.P.Q.2d (BNA) at 1501–03.
Another decision discussing the “public accessibility” of a printed publication under § 102 was Kyocera Wireless Corp. v. International Trade Commission,\footnote{545 F.3d 1340, 89 U.S.P.Q.2d (BNA) 1057 (Fed. Cir. 2008).} in which the Federal Circuit disagreed with the International Trade Commission’s (“ITC”) determination that an alleged prior art reference was not publicly available prior to the critical date.\footnote{Id. at 1345, 85 U.S.P.Q.2d (BNA) at 1060.} The prior art at issue was the Global System for Mobile Communications (“GSM”) standard, a comprehensive set of technical specifications for a mobile network.\footnote{908 F.2d 931, 15 U.S.P.Q.2d (BNA) 1321 (Fed. Cir. 1990).} The ITC had concluded that the GSM standard was analogous to the publication in Northern Telecom, Inc. v. Datapoint Corp.,\footnote{Id. at 1350, 85 U.S.P.Q.2d (BNA) at 1063–64.} which comprised sensitive documents about a complex military system and was maintained in a restricted-access proprietary library.\footnote{Kyocera Wireless, 545 F.3d at 1350, 85 U.S.P.Q.2d (BNA) at 1064.} On appeal, however, the Federal Circuit concluded that the record showed wide circulation of the GSM documents prior to the critical date: “publicly available” versions distributed as “consistent sets”; exchange of GSM specifications between U.S. companies and their European subsidiaries; and even the sale of over 25,000 copies of a “GSM bible.”\footnote{Id. at 1350–51, 85 U.S.P.Q.2d (BNA) at 1064.} Therefore, the GSM standard was “sufficiently accessible, at least to the public interested in the art.”\footnote{Id. at 1351, 89 U.S.P.Q.2d (BNA) at 1065 (citing In re Hall, 781 F.2d 897, 899, 228 U.S.P.Q. (BNA) 453, 455 (Fed. Cir. 1986)) (internal quotation omitted).}

Nevertheless, the Federal Circuit affirmed the validity of the patent-in-suit under § 102, on the grounds that the GSM standard did not constitute a single anticipating reference.\footnote{Id. at 1352, 89 U.S.P.Q.2d (BNA) at 1065.} Indeed, the record indicated that the hundreds of specifications making up the GSM standard were authored by various sets of authors at different times and consisted of hundreds of individual specifications, each “stand[ing] as a separate document in its own right.”\footnote{Id., 89 U.S.P.Q.2d (BNA) at 1065.} Moreover, the internal cross-references to other parts of the GSM standard did not constitute incorporation by reference so as to warrant consolidation.\footnote{Id., 89 U.S.P.Q.2d (BNA) at 1065.} For those reasons, the Federal Circuit affirmed the ITC’s determination that the GSM standard did not anticipate the patent claims under § 102. The court further foreclosed the availability of an obviousness argument, holding that “[t]his court
need not engage in an obviousness inquiry when [respondent] did not assert relevant obviousness arguments at the proper time.”

Similarly, where a patent holder raised a new issue of fact on appeal, in Golden Bridge Technology, Inc. v. Nokia, Inc., where a patent holder raised a new issue of fact on appeal, in Golden Bridge Technology, Inc. v. Nokia, Inc., the Federal Circuit refused to disturb the district court’s initial judgment. The asserted claims, which described a mobile communication system using a code division multiple access (“CDMA”) scheme, were held invalid by the district court, primarily on the basis of defendant’s expert testimony showing the presence of each limitation in a prior art reference. On appeal, the patent holder asserted, for the first time, that the prior art reference failed to disclose a particular “synchronization” limitation. Noting that that patent holder had ample opportunities to present its arguments to the trial court, the Federal Circuit “decline[d] to remand this case to the district court to decide an argument as to what a prior art reference discloses [a fact finding] when that argument, without any justification, is raised for the first time on appeal.” The court chastised the patent holder: “Appellate courts review district court judgments; we do not find facts.”

2. Public use and on-sale bar

Section 102(b) of 35 U.S.C. bars the ability to patent an invention that was “in public use or on sale in this country[,] more than one year prior to the date of the application for patent in the United States.” Therefore, once an inventor publicly uses or sells an invention, she has one year in which to file a patent application. As the Supreme Court has noted, underlying both the public use bar and the on-sale bar is a “reluctance to allow an inventor to remove existing knowledge from public use.” The determination of patent validity under § 102(b)’s public use or on-sale bar is a question of law based on underlying facts.

In Pfaff v. Wells Elecs., Inc., the Supreme Court set forth a two-pronged test that has been applied to both the public use and on-
sale bars under § 102(b).\textsuperscript{1137} Under this test, the on-sale bar invalidates a patent if, prior to the critical date (1) the invention was the subject of a commercial sale or offer for sale; and (2) the invention was ready for patenting.\textsuperscript{1138} Similarly, the public use bar mandates invalidation if, prior to the critical date, (1) the invention was in public use; and (2) the invention was ready for patenting.\textsuperscript{1139} A party may show that an invention was “ready for patenting” in at least two ways: (1) by demonstrating that the invention was reduced to practice; or (2) by demonstrating that the inventor had prepared drawings or other written descriptions of the invention that were sufficiently specific to enable one skilled in the art to practice the invention.\textsuperscript{1140}

Even in the case of a pre-critical-date public use or sale, however, a patentee may nevertheless avoid invalidation of the patent by establishing that the prior public use or sale was undertaken for the purpose of experimentation, in an effort to “perfect” the invention.\textsuperscript{1141} Under this “experimental use” exception, an inventor’s limited testing in public does not constitute “public use” for the purpose of § 102(b), so long as the inventor maintains control over the use of the invention\textsuperscript{1142} and does not attempt to profit by it.\textsuperscript{1143}

In E.I. Dupont de Nemours & Co. v. MacDermid Printing Solutions, LLC,\textsuperscript{1144} the Federal Circuit held that the district court abused its

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\textsuperscript{1137} See Invitrogen Corp. v. Biocrest Mfg., L.P., 424 F.3d 1374, 1379, 76 U.S.P.Q.2d (BNA) 1741, 1744 (Fed. Cir. 2005) ("[T]he [Pfaff] Court’s analysis of the statutory term ‘invention,’ or the ready for patenting prong, applies to both . . . parts of section 102(b), ‘on sale’ and ‘public use.’ Thus, the Supreme Court’s ‘ready for patenting test’ applies to the public use bar under § 102(b).").

\textsuperscript{1138} Pfaff, 525 U.S. at 67, 48 U.S.P.Q.2d (BNA) at 1646–47.

\textsuperscript{1139} See Invitrogen, 424 F.3d at 1379, 76 U.S.P.Q.2d (BNA) at 1744 ("A bar under § 102(b) arises where, before the critical date, the invention is in public use and ready for patenting.").

\textsuperscript{1140} Cargill, Inc. v. Canbra Foods, Ltd., 476 F.3d 1359, 1368, 81 U.S.P.Q.2d (BNA) 1705, 1712 (Fed. Cir. 2007).

\textsuperscript{1141} Pfaff, 525 U.S. at 64–65, 48 U.S.P.Q.2d (BNA) at 1645; see also Elizabeth v. Am. Nicholson Pavement Co., 97 U.S. 126, 137 (1877) (holding that an inventor’s public use “by way of experiment” does not bar patentability).

\textsuperscript{1142} See, e.g., Electromotive Div. of Gen. Motors Corp. v. Transp. Sys. Div. of Gen. Elec. Co., 417 F.3d 1203, 1214–15, 75 U.S.P.Q.2d (BNA) 1650, 1658 (Fed. Cir. 2005) ("[C]ontrol and customer awareness ordinarily must be proven if experimentation is to be found."); Lough v. Brunswick Corp., 86 F.3d 1113, 1120, 39 U.S.P.Q.2d (BNA) 1100, 1105 (Fed. Cir. 1996) ("[I]f the inventor has no control over the alleged experiments, he is not experimenting. If he does not inquire about the testing or receive reports concerning the results, similarly, he is not experimenting."); In re Hamilton, 882 F.2d 1576, 1581, 11 U.S.P.Q.2d (BNA) 1890, 1894 (Fed. Cir. 1989) ("[T]he inventor must keep the invention under his own control.").

\textsuperscript{1143} See Pfaff, 525 U.S. at 65, 48 U.S.P.Q.2d (BNA) at 1645–46 (describing the on-sale bar, which prevents an invention from being patented if it has been on sale any time before the patent application is filed) (quoting Elizabeth, 97 U.S. at 137).

\textsuperscript{1144} 525 F.3d 1353, 86 U.S.P.Q.2d (BNA) 1732 (Fed. Cir. 2008).
discretion in failing to accord a patent the priority date of the original provisional application, as required by the patent statute.\footnote{1145} In that case, the patentee changed its position over the course of the district court proceedings by asserting an earlier priority date in light of the accused infringer’s assertions of invalidity under \S\ 102.\footnote{1146} Nevertheless, the Federal Circuit held that the undisputed facts contained in the prosecution history established that the patent, which derived from a non-provisional application, was entitled to the filing date of the earlier provisional application as a matter of law.\footnote{1147} Because the provisional and non-provisional applications were identical and shared a common inventor, because the non-provisional was filed within twelve months of the provisional, and finally because the non-provisional explicitly referenced the provisional in the application, 35 U.S.C. \S\ 119(e)(1) of the patent statute mandated that the non-provisional filing be given “the same effect, as to such invention, as though filed on the date of the provisional application.”\footnote{1148}

In American Seating Co. v. USSC Group, Inc.,\footnote{1149} the Federal Circuit agreed with the district court’s refusal to grant summary judgment of invalidity, over a jury verdict to the contrary, where the prior public use of the invention was experimental.\footnote{1150} The asserted patent was directed to a wheelchair restraint system for use in mass transit vehicles.\footnote{1151} The accused infringer, USSC Group, argued that the claims were invalid for being in public use more than one year prior to the December 1996 filing date.\footnote{1152} In particular, USSC pointed to the inventors’ failure to obtain formal confidentiality agreements when disclosing the device to others before December 1995.\footnote{1153}

In upholding the district court’s denial of USSC’s motion for summary judgment, the Federal Circuit held that

the fact that the inventors revealed the prototype to a select group of individuals without a written confidentiality agreement is not dispositive. When access to an invention is clearly limited and controlled by the inventor, depending upon the relationships of

\begin{footnotes}
\item[1145.] Id. at 1354, 86 U.S.P.Q.2d (BNA) at 1734.
\item[1146.] Id. at 1355–56, 86 U.S.P.Q.2d (BNA) at 1736.
\item[1147.] Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1741.
\item[1148.] Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1737 (citing 35 U.S.C. \S\ 119(e)(1) (2008)); see also id. at 1359–63, 86 U.S.P.Q.2d (BNA) at 1737–39 (discussing the requirements for a non-provisional application to claim priority over a provisional application).
\item[1149.] 514 F.3d 1262, 85 U.S.P.Q.2d (BNA) 1683 (Fed. Cir. 2008).
\item[1150.] Id. at 1265, 85 U.S.P.Q.2d (BNA) at 1684.
\item[1151.] Id., 85 U.S.P.Q.2d (BNA) at 1684.
\item[1152.] Id. at 1267, 85 U.S.P.Q.2d (BNA) at 1685.
\item[1153.] Id., 85 U.S.P.Q.2d (BNA) at 1685.
\end{footnotes}
the observers and the inventor, an understanding of confidentiality can be implied.\textsuperscript{1154}

Here, the record established that the inventors had maintained control of the invention throughout the pre-critical-date period.\textsuperscript{1155} The periodic demonstrations to a limited number of friends and colleagues were used to solicit feedback regarding “evolving prototypes” as the invention was being developed.\textsuperscript{1156} All disclosures occurred in an out-of-service bus—indeed, there was no evidence that a prototype was placed in service before December 1995—and the inventors consistently removed the invention from the bus for storage under their control.\textsuperscript{1157} Therefore, these early disclosures fell within the experimental use exception, and the district court appropriately confirmed the jury’s verdict that the patent was valid.\textsuperscript{1158}

In contrast, the court in Atlanta Attachment Co. v. Leggett & Platt, Inc.\textsuperscript{1159} reversed the district court’s judgment applying the experimental use exception and concluded that the claimed invention was invalid for being on sale prior to the critical date.\textsuperscript{1160} Sewing machine manufacturer Atlanta Attachment had developed, in response to a request from potential customer Sealy, Inc., the invention that became the subject of the ‘603 patent.\textsuperscript{1161} The asserted claim of the ‘603 patent was directed to an automatic gusset ruffler machine for use in producing pillowtop mattresses.\textsuperscript{1162} More than a year prior to the critical date, Atlanta Attachment sent several prototypes to Sealy for testing and approval, along with offers to sell production models to Sealy.\textsuperscript{1163} Atlanta Attachment also sent an invoice, which Sealy paid, for one prototype that embodied all elements of the asserted claim.\textsuperscript{1164} Although Sealy ultimately decided not to buy the machines, Atlanta Attachment applied for a patent on its invention and later sued Leggett & Platt for patent infringement.\textsuperscript{1165}

Applying the two-pronged test described by the Supreme Court in Pfaff, the Federal Circuit held that claimed invention was both (1) the subject of a pre-critical-date commercial offer for sale and (2) ready

\textsuperscript{1154} Id. at 1268, 85 U.S.P.Q.2d (BNA) at 1685–86.
\textsuperscript{1155} Id. at 1267–68, 85 U.S.P.Q.2d (BNA) at 1685–86.
\textsuperscript{1156} Id., 85 U.S.P.Q.2d (BNA) at 1685–86.
\textsuperscript{1157} Id., 85 U.S.P.Q.2d (BNA) at 1685–86.
\textsuperscript{1158} Id. at 1268, 85 U.S.P.Q.2d (BNA) at 1686.
\textsuperscript{1159} 516 F.3d 1361, 85 U.S.P.Q.2d (BNA) 1995 (Fed. Cir. 2008).
\textsuperscript{1160} Id. at 1363, 85 U.S.P.Q.2d (BNA) at 1996.
\textsuperscript{1161} Id., 85 U.S.P.Q.2d (BNA) at 1996–97.
\textsuperscript{1162} Id., 85 U.S.P.Q.2d (BNA) at 1996.
\textsuperscript{1163} Id., 85 U.S.P.Q.2d (BNA) at 1997.
\textsuperscript{1164} Id. at 1363, 1365, 85 U.S.P.Q.2d (BNA) at 1997–98.
\textsuperscript{1165} Id. at 1364, 85 U.S.P.Q.2d (BNA) at 1997.
for patenting at the time of the offer, thus rendering the asserted claim invalid under the on-sale bar provision of § 102(b).\footnote{1166} In the case of the prototype embodying all elements of the claim, Atlanta Attachment had offered the machine for sale (by sending an invoice) and Sealy had accepted (by paying the invoice). Thus, the invention was the subject of an actual commercial sale, not merely an offer for sale.\footnote{1167} The court also rejected Atlanta Attachment’s argument that its sales to Sealy qualified as “experimental use.”\footnote{1168} In giving the prototypes to Sealy to conduct its own testing, Atlanta Attachment relinquished control over the prototypes and the alleged experimentation.\footnote{1169} Moreover, “once there has been a commercial offer, there can be no experimental use exception.”\footnote{1170} Finally, the Federal Circuit concluded that the invention was “ready for patenting” under Pfaff because it had been reduced to practice at the time of the sale of the prototype, even though other improvements were later made.\footnote{1171}

In a separate concurrence, Judge Prost called attention to “the confusion in our caselaw” regarding the application of the experimental use doctrine to the two-prong test set forth in Pfaff.\footnote{1172} In particular, wrote Judge Prost, the Pfaff decision distinguished between “ready for patenting” (the second prong of the inquiry) and “reduction to practice.”\footnote{1173} Nevertheless, numerous post-Pfaff decisions have held that the experimental use exception is categorically unavailable once the invention is reduced to practice.\footnote{1174} Judge Prost disagreed with this position, noting that “[i]f we were to accept that reduction to practice eliminates availability of the experimental use doctrine as a whole, the continuing viability of that doctrine would exist only between the time an invention is ready for patenting and the time it is reduced to practice.”\footnote{1175} This would

\footnote{1166} Id. at 1367, 85 U.S.P.Q.2d (BNA) at 1999.
\footnote{1167} Id. at 1365, 85 U.S.P.Q.2d (BNA) at 1998.
\footnote{1168} Id. at 1366, 85 U.S.P.Q.2d (BNA) at 1999.
\footnote{1169} Id., 85 U.S.P.Q.2d (BNA) at 1998.
\footnote{1170} Id., 85 U.S.P.Q.2d (BNA) at 1999.
\footnote{1171} Id. at 1367–68, 85 U.S.P.Q.2d (BNA) at 2000.
\footnote{1172} Id. at 1368, 85 U.S.P.Q.2d (BNA) at 2000 (Prost, J., concurring).
\footnote{1173} Id., 85 U.S.P.Q.2d (BNA) at 2000.
\footnote{1175} Id. at 1368–69, 85 U.S.P.Q.2d (BNA) at 2001.
dramatically restrict inventors’ abilities to continue developing an invention. Therefore, in her view, even after creating a complete invention that is ready for patenting, inventors “should be able to continue to privately develop any claimed aspect of that invention without risks of invalidation, if they conduct development activities in a way that is neither public nor simply commercial, even if there is some commercial benefit to the inventor[s] in connection with the experimental use.”

Notwithstanding Judge Prost’s concurrence in Atlanta Attachment, the Federal Circuit issued two additional opinions in 2008 affirming the rule that reduction to practice eliminates the availability of the experimental use exception to the on-sale bar. In re Cygnus Telecommunications Technology, LLC Patent Litigation affirmed the district court’s ruling of invalidity explicitly “based on this court’s law that ‘experimental use cannot occur after a reduction to practice.’”

There, the inventor’s own declaration stated that the invention—a computerized call-back system for placing telephone calls from abroad—had been reduced to practice by the time the inventor began charging two “beta testers” a per-minute rate to use the system. Other information provided by the inventor further established that the system was functional and embodied all limitations of the claim prior to the sales to the beta testers. Thus, the district court had correctly declined to apply the experimental use exception, and the patent was invalid under § 102(b).

Similarly, in In re Omeprazole Patent Litigation, the Federal Circuit reiterated that “experimental use cannot negate a public use when it is shown that the invention was reduced to practice before the experimental use.” In this matter, which involved patents on the drug omeprazole (the active ingredient in Prilosec), the court concluded that the district court had misapplied the law when it found that the experimental use exception would prevent

1176. Id. at 1369, 85 U.S.P.Q.2d (BNA) at 2001.
1178. 536 F.3d 1343, 87 U.S.P.Q.2d (BNA) 1801 (Fed. Cir. 2008).
1180. Id. at 1354–55, 87 U.S.P.Q.2d (BNA) at 1808.
1181. Id., 87 U.S.P.Q.2d (BNA) at 1808.
1182. Id. at 1356, 87 U.S.P.Q.2d (BNA) at 1808–09.
1184. Id. at 1372, 87 U.S.P.Q.2d (BNA) at 1872 (acknowledging, as a “But see,” Judge Prost’s concurrence in Atlanta Attachment).
invalidation even if the invention had been reduced to practice before or during the experimentation period.\textsuperscript{1185}

Nevertheless, the Federal Circuit affirmed the district court’s determination that clinical studies investigating the claimed drug formulation did not qualify as invalidating public uses under § 102(b), on the grounds that the drug was not yet ready for patenting at the time of the clinical trials.\textsuperscript{1186} The alleged infringers argued that the claimed drug formulation had been successfully reduced to practice and was therefore “ready for patenting” under Pfaff.\textsuperscript{1187} The district court found otherwise, and the Federal Circuit agreed.\textsuperscript{1188}

Although it was undisputed that the formulation had been produced prior to the trials, this “[did] not establish that the [patentees] had determined that the invention would work for its intended purpose” of increasing in vivo drug stability without significantly compromising long-term storage stability.\textsuperscript{1189} Moreover, the fact that the formulation was “more stable” than prior formulations was insufficient to prove that the drug was stable enough to be used in treatment.\textsuperscript{1190} Finally, even if it was well-known before the critical date that omeprazole was a safe and effective treatment, the challenge faced by the inventors was not providing safe and effective treatment, but developing a formulation that could be delivered to the small intestine and overcome the drug’s sensitivity to the acidic environment—a goal that had not been achieved before the critical date.\textsuperscript{1191} Thus, there was no clear error in the district court’s finding that the claims were not ready for patenting—and thus not invalidating—under § 102(b).\textsuperscript{1192}

C. Obviousness

In keeping with the goal of limiting patent monopolies to cases of true innovation, the patent statute also bars the patentability of inventions that are obvious. In particular, 35 U.S.C. § 103(a) provides that a claimed invention is unpatentable “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

\begin{itemize}
\item \textsuperscript{1185} Id., 87 U.S.P.Q.2d (BNA) at 1872.
\item \textsuperscript{1186} Id. at 1373–75, 87 U.S.P.Q.2d (BNA) at 1873–74.
\item \textsuperscript{1187} Id. at 1373, 87 U.S.P.Q.2d (BNA) at 1873.
\item \textsuperscript{1188} Id. at 1373–75, 87 U.S.P.Q.2d (BNA) at 1873–75.
\item \textsuperscript{1189} Id. at 1373–74, 87 U.S.P.Q.2d (BNA) at 1874–75.
\item \textsuperscript{1190} Id. at 1374–75, 87 U.S.P.Q.2d (BNA) at 1874–75.
\item \textsuperscript{1191} Id. at 1375, 87 U.S.P.Q.2d (BNA) at 1875.
\item \textsuperscript{1192} Id., 87 U.S.P.Q.2d (BNA) at 1875.
\end{itemize}
at the time the invention was made to a person having ordinary skill in the art.\textsuperscript{1193}

Obviousness is a legal question, based upon underlying factual determinations.\textsuperscript{1194} The relevant factual inquiries are (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art, and (4) evidence of secondary factors (also called objective indicia of non-obviousness), such as commercial success, long felt but unsolved needs, and the failure of others.\textsuperscript{1195}

In contrast with anticipation, obviousness may be proven by combining elements disclosed in various separate prior art references. In evaluating obviousness based on a combination of references, the Supreme Court has noted that “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”\textsuperscript{1196} As explained in the Supreme Court’s 2007 decision in KSR International Co. v. Teledex, Inc.,\textsuperscript{1197} obviousness must be assessed in a flexible manner, as the motivation to combine references can be triggered by “any need or problem known in the field of endeavor at the time of invention.”\textsuperscript{1198} Nevertheless, a “combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”\textsuperscript{1199}

In deciding KSR, the Supreme Court rejected the Federal Circuit’s strict use of the “teaching, suggestion, or motivation” (“TSM”) test, under which a patent claim is only found obvious if the prior art, the nature of the problem, or the knowledge of a person of ordinary skill in the art evidences some motivation or suggestion to combine the prior art teachings.\textsuperscript{1200}

In Cohesive Technologies, Inc. v. Waters Corp.,\textsuperscript{1201} the Federal Circuit addressed the relationship between the patent-law doctrines of anticipation and obviousness. The underlying dispute involved
patents relating to high-performance liquid chromatography, a process of identifying and separating various chemical compounds in a liquid.\textsuperscript{1202} At the jury trial, the alleged infringer, Waters Corp., argued that the asserted claims were anticipated by seven different prior art references.\textsuperscript{1203} Waters also argued that the seven references, either separately or in various combinations, rendered the claims obvious.\textsuperscript{1204} Over Waters’s objection, the district court submitted obviousness, but not anticipation, to the jury, reasoning that anticipation is “a subset of obviousness.”\textsuperscript{1205} The jury found, inter alia, that the claims were not obvious over the prior art references.\textsuperscript{1206} On appeal, Waters asserted that the district court had erred by granting judgment as a matter of law on the anticipation issue, and the Federal Circuit agreed.\textsuperscript{1207}

The two-judge majority of the panel held that the district court had erred in refusing to allow the jury to consider anticipation without making the requisite finding that no reasonable jury could have concluded that the references anticipated the claims.\textsuperscript{1208} Instead, the district court had characterized Waters’s anticipation position as “iffy,” which did not foreclose the possibility of a favorable jury verdict.\textsuperscript{1209} The majority went on to assert that, “[w]hile it is commonly understood that prior art references that anticipate a claim will usually render that claim obvious, it is not necessarily true that a verdict of nonobviousness forecloses anticipation.”\textsuperscript{1210} Anticipation and obviousness are separate statutory conditions of patentability and involve distinct tests.\textsuperscript{1211} Therefore, the majority refused to accept the dissent’s assertion that every anticipated claim is also obvious.\textsuperscript{1212} The court stated:

\begin{itemize}
  \item Id. at 1357–58, 88 U.S.P.Q.2d (BNA) at 1906.
  \item Id. at 1359, 88 U.S.P.Q.2d (BNA) at 1907.
  \item Id. at 1363–64, 88 U.S.P.Q.2d (BNA) at 1910–11.
\end{itemize}

\textsuperscript{1202} Consider . . . a claim directed toward a particular alloy of metal. The claimed metal alloy may have all the hallmarks of a nonobvious invention—there was a long felt but unresolved need for an alloy with the properties of the claimed alloy, others may have tried and failed to produce such an alloy, and, once disclosed, the claimed alloy may have received high praise and seen commercial success. Nevertheless, there may be a centuries-old alchemy textbook that, while not describing any metal alloys, describes a method that, if practiced precisely, actually produces the claimed alloy.
A court cannot refuse to submit the issue of anticipation to the jury simply because the accused infringer has also asserted an obviousness defense. It is for the litigants—not the court—to make the strategic decision as to whether to assert one, both, or neither of these defenses in a jury trial.\footnote{1213}

The majority therefore reversed the district court’s grant of judgment as a matter of law on anticipation and remanded for further proceedings.\footnote{1214}

Judge Mayer dissented from the majority’s decision to remand the issue of anticipation to the trial court. He agreed that the tests for establishing obviousness and anticipation are separate and that a district court cannot refuse to submit an anticipation defense to a jury simply because the accused infringer had also presented an obviousness defense.\footnote{1215} Nevertheless, Judge Mayer maintained that once the jury had already determined that the claims were not obvious, there was no logical reason to remand the case to consider anticipation.\footnote{1216}

The jury here considered all of the allegedly anticipating prior art references, but nonetheless returned a verdict that the asserted claims are non-obvious. If a series of prior art references did not render the claimed invention obvious, how could one of those references contain each and every element of the claimed invention so as to render it anticipated?\footnote{1217}

Therefore, Judge Mayer would have affirmed the district court’s directed verdict on anticipation.\footnote{1218}

A series of Federal Circuit decisions in 2008, addressing the Supreme Court’s April 2007 decision in \textit{KSR},\footnote{1219} clarified the test for determining obviousness based on a combination of prior art references. The dispute in \textit{Agrizap, Inc. v. Woodstream Corp.}\footnote{1220} represented a “textbook case of [obviousness] when the asserted claims involve a combination of familiar elements according to known methods that does no more than yield predictable results.”\footnote{1221}

The patent at issue was directed to a method and device for

\footnote{While the prior art alchemy textbook inherently anticipates the claim under \S\ 102, the claim may not be said to be obvious under \S\ 103.}

\footnote{Id., 88 U.S.P.Q.2d (BNA) at 1911 n.2.}

\footnote{1213. Id. at 1364–65, 88 U.S.P.Q.2d (BNA) at 1912.}

\footnote{1214. Id. at 1365, 88 U.S.P.Q.2d (BNA) at 1912.}

\footnote{1215. Id. at 1376, 88 U.S.P.Q.2d (BNA) at 1919 (Mayer, J., dissenting).}

\footnote{1216. Id., 88 U.S.P.Q.2d (BNA) at 1919.}

\footnote{1217. Id., 88 U.S.P.Q.2d (BNA) at 1920.}

\footnote{1218. Id. at 1377, 88 U.S.P.Q.2d (BNA) at 1920.}

\footnote{1219. Supra discussion Part I.A.1.}

\footnote{1220. 520 F.3d 1337, 86 U.S.P.Q.2d (BNA) 1110 (Fed. Cir. 2008).}

\footnote{1221. Id. at 1344, 86 U.S.P.Q.2d (BNA) at 1115.}
electrocuting small rodents, using an electrical resistive switch. The undisputed facts showed that a prior art device, the Gopher Zapper, disclosed all elements of the asserted claims, with the exception of the type of switch used: the Gopher Zapper used a mechanical pressure switch, rather than an electrical resistive switch. The use of resistive switches, however, was taught in two prior patents, the Dye and Madsen references, which both described devices for applying electrical current to an external body and were directed toward solving the same problem as the patent-in-suit—the tendency for mechanical switches to malfunction in damp and dirty environments. In light of this evidence, the Federal Circuit concluded that the patentee’s device was invalid as embodying merely an obvious combination of prior art teachings to yield predictable results. Because the objective indicia of non-obviousness were insufficient to overcome such a clear case of obviousness, the Federal Circuit reversed the district court’s denial of the accused infringer’s motion for judgment as a matter of law as to obviousness.

In Commonwealth Scientific & Industrial Research Organisation v. Buffalo Technology, Inc., the Federal Circuit concluded that a genuine issue of material fact existed as to the motivation to combine prior art references to render the patent obvious, and thus, the district court had erred in granting summary judgment in favor of the patentee. The patents-in-suit were aimed at addressing a problem affecting indoor wireless local area networks—called the “multipath problem”—in which multiple, echoed signals (caused by radio waves “bouncing” off objects in a room) interfere with the main signal. Before the district court, the alleged infringer argued that the claims were obvious in light of several combinations of prior art references. Applying the pre-KSR teaching, suggestion, and motivation (“TSM”) test, the district court granted summary judgment of non-obviousness, distinguishing between the general motivation to address a problem (which it deemed insignificant to prove obviousness) and a specific motivation to pursue a particular solution to the problem. The Federal Circuit vacated the district

1222. Id. at 1339–40, 86 U.S.P.Q.2d (BNA) at 1111.
1223. Id. at 1344, 86 U.S.P.Q.2d (BNA) at 1115.
1224. Id., 86 U.S.P.Q.2d (BNA) at 1115.
1225. Id., 86 U.S.P.Q.2d (BNA) at 1115.
1226. Id., 86 U.S.P.Q.2d (BNA) at 1115.
1228. Id. at 1378, 88 U.S.P.Q.2d (BNA) at 1575.
1229. Id. at 1367, 88 U.S.P.Q.2d (BNA) at 1567.
1230. Id. at 1372–73, 88 U.S.P.Q.2d (BNA) at 1570–71.
1231. Id. at 1373, 88 U.S.P.Q.2d (BNA) at 1571.
court’s determination in light of the new analytical framework discussed in KSR.\footnote{1232} The court explained that the Supreme Court’s decision in KSR had criticized the Federal Circuit’s TSM test for focusing solely on the precise problem that an inventor sought to solve.\footnote{1233} Rather, the Court ruled in KSR that “any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.”\footnote{1234} Therefore, the alleged infringer had raised a valid argument that all of the relied-upon references addressed a common problem, the “multipath” problem for wireless radio frequency communication systems.\footnote{1235} This, coupled with the patentee’s counterargument that the prior art presented a different problem, created a factual issue regarding the motivation to combine references.\footnote{1236} The Federal Circuit accordingly remanded the matter to the district court for further proceedings on the obviousness issue.\footnote{1237}

The court in Asyst Technologies, Inc. v. Emtrak, Inc.\footnote{1238} affirmed the trial court’s decision to set aside a jury verdict of non-obviousness where the jury improperly failed to consider a piece of relevant prior art. The infringement suit involved a patented system for tracking items, such as silicone semiconductor wafers, in a manufacturing facility.\footnote{1239} The evidence presented at trial demonstrated that one prior art patent, the “Hesser” reference, disclosed “essentially the same structure” as the patent-in-suit.\footnote{1240} The sole material difference was that the Hesser reference disclosed that tracking information was communicated over a bus, while the claims of the asserted patent recited communication by way of a multiplexer.\footnote{1241} The alleged infringers had argued that the Hesser reference, in combination with the well-known interchangeability between a bus and a multiplexer in the relevant prior art, rendered the claims invalid for obviousness.\footnote{1242} Following a trial, the jury concluded that the Hesser reference did not constitute relevant prior art and therefore deemed the asserted

\begin{footnotes}
\footnote{1232.} Id. at 1374, 88 U.S.P.Q.2d (BNA) at 1572.
\footnote{1233.} Id., 88 U.S.P.Q.2d (BNA) at 1571.
\footnote{1235.} Commonwealth Scientific, 542 F.3d at 1375, 88 U.S.P.Q.2d (BNA) at 1572.
\footnote{1236.} Id. at 1375–76, 88 U.S.P.Q.2d (BNA) at 1572.
\footnote{1237.} Id. at 1376, 88 U.S.P.Q.2d (BNA) at 1573.
\footnote{1238.} 544 F.3d 1310, 88 U.S.P.Q.2d (BNA) 1623 (Fed. Cir. 2008).
\footnote{1239.} Id. at 1312, 88 U.S.P.Q.2d (BNA) at 1625.
\footnote{1240.} Id. at 1314, 88 U.S.P.Q.2d (BNA) at 1626.
\footnote{1241.} Id., 88 U.S.P.Q.2d (BNA) at 1626–27.
\footnote{1242.} Id. at 1314–15, 88 U.S.P.Q.2d (BNA) at 1627.
\end{footnotes}
Following post-trial briefing, the Supreme Court rendered its decision in KSR, and the district court, after hearing additional arguments in light of KSR, set aside the jury verdict and entered judgment of obviousness as a matter of law.\footnote{1244}

On appeal, the Federal Circuit agreed that the jury had erred in finding that the Hesser reference was not prior art.\footnote{1245} Hesser was directly pertinent to the art of tracking articles in a factory.\footnote{1246} In fact, the patent holder’s own technical expert had acknowledged that the relevant prior art would include the Hesser reference.\footnote{1247} Moreover, one of ordinary skill in the art would have been familiar with both buses and multiplexers, each of which had well-known advantages and disadvantages at the time the patent-in-suit was filed.\footnote{1248} The court noted KSR’s point that “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”\footnote{1249} Therefore, because the patent holder had presented no evidence to indicate that the multiplexer in its invention operated in an unconventional or unfamiliar way, the Federal Circuit agreed with the district court that it would have been obvious to a skilled artisan to replace Hesser’s bus with a multiplexer to arrive at the claimed invention.\footnote{1250}

As a procedural matter, the court in Asyst Technologies also ruled that the district court did not abuse its discretion in allowing the accused infringer to introduce a new theory of invalidity (based on the Hesser reference).\footnote{1251} “[T]he change in claim construction resulting from this court’s decision on appeal ‘changed the rules of the game.’”\footnote{1252} It was therefore appropriate for the district court to allow the accused infringer to amend its defenses in light of the new claim construction.\footnote{1253}

\footnote{1243} Id. at 1313, 88 U.S.P.Q.2d (BNA) at 1625.
\footnote{1244} Id., 88 U.S.P.Q.2d (BNA) at 1625.
\footnote{1245} Id., 88 U.S.P.Q.2d (BNA) at 1626.
\footnote{1246} Id., 88 U.S.P.Q.2d (BNA) at 1626.
\footnote{1247} Id., 88 U.S.P.Q.2d (BNA) at 1626.
\footnote{1248} Id. at 1314–15, 88 U.S.P.Q.2d (BNA) at 1627.
\footnote{1249} Id. at 1315, 88 U.S.P.Q.2d (BNA) at 1627 (quoting KSR Int’l Co. v. Teleflex, Inc., 550 U.S. 398, 417, 82 U.S.P.Q.2d (BNA) 1385, 1389 (2007)).
\footnote{1250} Id., 88 U.S.P.Q.2d (BNA) at 1627. In addition, the secondary considerations asserted by the patent holder were either inapplicable or not attributable to the particular bus/multiplexer substitution that distinguished the patent from Hesser. Id. at 1316, 88 U.S.P.Q.2d (BNA) at 1628.
\footnote{1251} Id. at 1317, 88 U.S.P.Q.2d (BNA) at 1629.
\footnote{1252} Id., 88 U.S.P.Q.2d (BNA) at 1629 (quoting Johns Hopkins Univ. v. Cellpro, Inc., 152 F.3d 1342, 1357, 47 U.S.P.Q.2d (BNA) 1705, 1715 (Fed. Cir. 1988)).
\footnote{1253} Id., 88 U.S.P.Q.2d (BNA) at 1629.
In Rentrop v. Spectranetics Corp., however, the Federal Circuit held that a defendant had waived its argument under KSR by not raising the argument in the district court, even though KSR had been decided after the jury verdict and post-trial briefing. The court held that the defendant could have raised KSR after the post-trial briefing was completed because the district court judge did not decide the post-trial motions for almost four months after the KSR decision. As the court summarized, “when there is a relevant change in the law before entry of final judgment,” a party that fails to notify the district court “waives arguments on appeal that are based on that change of law.”

In Erico International Corp. v. Vutec Corp., the Federal Circuit addressed obviousness in the context of a grant of a preliminary injunction. The dispute arose out of Erico’s ‘994 patent, which disclosed a method of using Erico’s popular J-Hook fasteners to support low voltage communication cables. The asserted claim included a limitation that required “spacing the [J-Hooks] . . . so that the run sags between [the J-Hooks] no more than about 30 cm.” Erico sought a preliminary injunction to prevent the defendant from selling its own version of the J-Hook. While admitting that it had copied Erico’s J-Hook design, the defendant argued that the asserted claim was invalid as obvious over a similar hook device disclosed in “the OBO Betterman” reference, in combination with a 1990 publication by the Electronics Industries Alliance/Telecommunications Industry Association (“EIA/TIA”) setting forth proper standards for hanging open-top cable supports. Nevertheless, the district court granted a preliminary injunction, which the Federal Circuit vacated by a 2-1 panel majority.

The majority decision determined that the defendant raised a substantial question of invalidity, thus negating the patent holder’s “likelihood of success” on the merits. As the Federal Circuit explained, “[v]alidity challenges during preliminary injunction proceedings can be successful, that is, they may raise substantial

1255. Id. at 1117, 89 U.S.P.Q.2d (BNA) at 1420.
1256. Id., 89 U.S.P.Q.2d (BNA) at 1420.
1257. 516 F.3d 1350, 86 U.S.P.Q.2d (BNA) 1030 (Fed. Cir. 2008).
1258. Id. at 1351, 86 U.S.P.Q.2d (BNA) at 1031–32.
1259. Id. at 1352, 86 U.S.P.Q.2d (BNA) at 1032.
1260. Id. at 1351–52, 86 U.S.P.Q.2d (BNA) at 1031.
1261. Id. at 1353, 86 U.S.P.Q.2d (BNA) at 1032.
1262. Id. at 1354, 86 U.S.P.Q.2d (BNA) at 1033.
1263. Id. at 1351–52, 86 U.S.P.Q.2d (BNA) at 1031.
1264. Id. at 1357, 86 U.S.P.Q.2d (BNA) at 1035.
questions of invalidity, on evidence that would not suffice to support a judgment of invalidity at trial.” Raising a substantial question of invalidity “requires less proof than the clear and convincing standard to show actual invalidity.” Under this lowered standard, the court concluded that the alleged combination of references, supported by the inventor’s own testimony, posed a “serious challenge” to the validity of the asserted claim. The OBO Betterman reference disclosed a hook with downward flaring flanges that were nearly identical to those of Erico’s J-Hook. The EIA/TIA standards set out appropriate circumstances for using an open-top cable support system for communication cables. Moreover, the inventor had testified that it was common practice for installers of communication cables to pull cable taut in order to reduce sagging to less than 30 cm. This combination, explained the majority, suggests an “implicit motivation to combine the prior art” to use J-Hooks to meet the claim limitation of 30-cm-or-less cable sag. Thus, a preliminary injunction was not warranted.

Dissenting, Judge Newman argued that the majority applied an incorrect standard to the factor of “likelihood of success on the merits.” The proper inquiry is “not whether there is a ‘substantial question’; it is whether the defendants have shown that they are likely to succeed on the merits, on the standards and burdens of proof as would prevail at trial.” Moreover, Judge Newman criticized the majority for not explaining how the district court abused its discretion and for failing to consider the other equitable factors (irreparable harm, the balance of hardships, and the public interest) that are relevant to a preliminary injunction.

The court in Eisai Co. v. Dr. Reddy’s Laboratories, Ltd. clarified the post-KSR standard for determining obviousness in the context of patents on chemical compounds. The patent at issue, owned by Eisai, claimed the compound rabeprazole and its salts. Rabeprazole is part of a class of drugs called proton pump inhibitors, which suppress

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1265. Id. at 1355–56, 86 U.S.P.Q.2d (BNA) at 1034.
1266. Id. at 1356, 86 U.S.P.Q.2d (BNA) at 1034.
1267. Id., 86 U.S.P.Q.2d (BNA) at 1034.
1268. Id., 86 U.S.P.Q.2d (BNA) at 1034.
1269. Id. at 1354, 86 U.S.P.Q.2d (BNA) at 1033.
1270. Id. at 1356–57, 86 U.S.P.Q.2d (BNA) at 1034–35.
1271. Id. at 1356, 86 U.S.P.Q.2d (BNA) at 1034.
1272. Id. at 1357, 86 U.S.P.Q.2d (BNA) at 1035 (Newman, J., dissenting).
1273. Id. at 1359, 86 U.S.P.Q.2d (BNA) at 1036.
1274. Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1035.
1275. Id. at 1358–59, 86 U.S.P.Q.2d (BNA) at 1036.
1277. Id. at 1356, 87 U.S.P.Q.2d (BNA) at 1454.
the secretion of gastric acid.\textsuperscript{1278} When Dr. Reddy’s Laboratories and Teva Pharmaceuticals USA, Inc. filed abbreviated new drug applications (“ANDAs”) seeking to produce a generic version of the drug, Eisai initiated a patent infringement lawsuit.\textsuperscript{1279} Teva countered by asserting that Eisai’s claimed drug compound was obvious in view of EP ‘726 (claiming lansoprazole, a known anti-ulcer drug), the ‘431 patent (claiming omeprazole), and an article by Brandstrom, et al.\textsuperscript{1280} In particular, Teva focused on the EP ‘726 patent disclosing lansoprazole, which is structurally identical to rabeprazole, except that lansoprazole has a fluorinated substituent, whereas rabeprazole has a methoxypropoxy substituent.\textsuperscript{1281} The district court granted Eisai summary judgment of non-obviousness, and Teva appealed.\textsuperscript{1282}

The Federal Circuit affirmed the district court’s determination that the claims were non-obvious.\textsuperscript{1283} Where the patent claims a chemical compound, an obviousness analysis typically turns on “structural similarities and differences” between the claimed compound and other compounds disclosed in the prior art.\textsuperscript{1284} Thus, one may prove obviousness by establishing some motivation for why a skilled artisan would select and then alter a known compound (i.e., lead compound) to arrive at the claimed invention.\textsuperscript{1285} The Supreme Court’s decision in \textit{KSR} supports this reasoning, as it noted that “an invention may have been obvious ‘[w]hen there [was] . . . a design need or market pressure to solve a problem and there [were] . . . a finite number of identified, predictable solutions.”\textsuperscript{1286} “In other words,” wrote the Federal Circuit, “post-\textit{KSR}, a prima facie case of obviousness for a chemical compound still, in general, begins with the reasoned identification of a lead compound.”\textsuperscript{1287}

Here, Teva chose to identify lansoprazole as the lead compound in its obviousness theory.\textsuperscript{1288} However, one of the most desirable traits of lansoprazole is its ability to cross lipid membranes—a property that is

\begin{itemize}
\item \textsuperscript{1278} Id., 87 U.S.P.Q.2d (BNA) at 1454.
\item \textsuperscript{1279} Id., 87 U.S.P.Q.2d (BNA) at 1454.
\item \textsuperscript{1280} Id. at 1357, 87 U.S.P.Q.2d (BNA) at 1455.
\item \textsuperscript{1281} Id. at 1357–58, 87 U.S.P.Q.2d (BNA) at 1455.
\item \textsuperscript{1282} Id. at 1356, 87 U.S.P.Q.2d (BNA) at 1454.
\item \textsuperscript{1283} Id. at 1362, 87 U.S.P.Q.2d (BNA) at 1459.
\item \textsuperscript{1284} Id. at 1356–57, 87 U.S.P.Q.2d (BNA) at 1455 (citing Eli Lilly & Co. v. Zenith Goldline Pharms., Inc., 471 F.3d 1369, 1377, 81 U.S.P.Q.2d (BNA) 1324, 1329 (Fed. Cir. 2006)).
\item \textsuperscript{1285} Id. at 1357, 87 U.S.P.Q.2d (BNA) at 1455.
\item \textsuperscript{1286} Id. at 1359, 87 U.S.P.Q.2d (BNA) at 1456 (citing KSR Int’l Co. v. Teleflex, Inc., 550 U.S. 398, 421, 82 U.S.P.Q.2d (BNA) 1385, 1390 (2007)) (alteration in original).
\item \textsuperscript{1287} Id., 87 U.S.P.Q.2d (BNA) at 1457.
\item \textsuperscript{1288} Id. at 1358–59, 87 U.S.P.Q.2d (BNA) at 1456.
\end{itemize}
attributable to its fluorinated substituent. Because the record provided “no discernable reason” for why a skilled artisan would be motivated to select lansoprazole, only to remove its key feature, Teva failed to establish that the patented claims were obvious.

The Federal Circuit’s decision in *In re DBC* affirmed the PTO’s rejection of claims directed to a “nutraceutical composition” from the fruit of the manogsteen tree as obvious over the prior art. DBC had obtained a patent on its composition, claiming a mixture of the juice and rind of the mangosteen fruit, combined with at least one other type of fruit or vegetable juice. On re-examination, the examiner rejected all claims as obvious over a combination of seven references, of which only one (the JP ‘442 patent) was not before the original examiner who found the claims patentable. In response, DBC submitted three declarations to show objective indicia of non-obviousness, including the success of XanGo, the commercial embodiment of DBC’s invention. The examiner, however, finalized the rejection, and the Board of Patent Appeals and Interferences affirmed. On appeal, DBC argued (1) that the Board failed to establish a prima facie case of obviousness based upon a substantial new question of patentability because the JP ‘442 patent was cumulative prior art and (2) that the Board erred in not giving adequate weight to its evidence of commercial success. Regarding DBC’s first argument, the JP ‘442 reference was not cumulative because it was the only reference that taught the production of a compound with dietary or health benefits (i.e., a “nutraceutical composition” under the patent’s definition of the term) by combining the bitter mangosteen rind with fruits and fruit juices. Although one prior art patent disclosed the use of mangosteen rind as a drug, it only disclosed administration via “a syrup, solution, or suspension with a carrier”; it did not disclose a combination of the rind with fruits or fruit juices. Therefore, the PTO correctly

1289. Id. at 1358, 87 U.S.P.Q.2d (BNA) at 1456.
1290. Id., 87 U.S.P.Q.2d (BNA) at 1456-57.
1291. Id. at 1358-59, 87 U.S.P.Q.2d (BNA) at 1456-57.
1292. 545 F.3d 1373, 89 U.S.P.Q.2d (BNA) 1123 (Fed. Cir. 2008).
1293. Id. at 1376, 89 U.S.P.Q.2d (BNA) at 1125.
1294. Id. at 1375-76, 89 U.S.P.Q.2d (BNA) at 1125.
1295. Id. at 1376, 89 U.S.P.Q.2d (BNA) at 1125.
1296. Id., 89 U.S.P.Q.2d (BNA) at 1125.
1298. Id. at 1376, 89 U.S.P.Q.2d (BNA) at 1125.
1299. Id. at 1375, 89 U.S.P.Q.2d (BNA) at 1125.
1300. Id. at 1376, 1382, 89 U.S.P.Q.2d (BNA) at 1125, 1130.
1301. Id. at 1382, 89 U.S.P.Q.2d (BNA) at 1130.
concluded that the JP ’442 reference presented a substantial new question of patentability and appropriately rejected the claims.\textsuperscript{1302} Regarding DBC’s second argument, the Federal Circuit agreed with the PTO that DBC’s evidence of commercial success was insufficient to rebut the strong prima facie case of obviousness.\textsuperscript{1303} DBC had merely presented its sales figures without establishing “that the sales were a direct result of the unique characteristics of the claimed invention.”\textsuperscript{1304}

D. 35 U.S.C. § 112

1. Enablement

Under the enablement requirement, every patent must describe “the manner and process of making and using [the invention], in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same.”\textsuperscript{1305} This statutory mandate is “part of the quid pro quo of the patent bargain”\textsuperscript{1306} and is designed to ensure that the public is enriched (by an adequate disclosure of the invention) just as the inventor is enriched (by a limited monopoly to commercialize the invention). It therefore follows that a patent specification must enable the full scope of each and every claim.\textsuperscript{1307}

Enablement is a question of law, based upon underlying questions of fact.\textsuperscript{1308} Moreover, because a patent is presumed valid, a party challenging enablement must prove non-enablement by clear and convincing evidence.\textsuperscript{1309}

In Sitrick v. Dreamworks, LLC,\textsuperscript{1310} the Federal Circuit affirmed summary judgment of invalidity due to a lack of enablement, where the scope of the claims was broader than the disclosures in the specifications. The two patents at issue concerned a process for integrating a user’s own audio signal or visual image into a pre-
existing audiovisual presentation. Defendants' allegedly infringing product, “ReVoice Studio,” allowed a user to combine her voice with pre-existing movie images on a DVD. The asserted claims applied to both video games and movies. Nevertheless, the district court found that the patent specifications did not adequately explain how the invention would function in the context of movies, which, unlike video games, did not use discrete signals for identifying and retrieving particular character images. Thus, the district court adjudged the claims invalid for lack of enablement as to movies.

The Federal Circuit affirmed, maintaining that “the scope of the claims must be less than or equal to the scope of the enablement' to 'ensure[] that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims.” Defendants showed, by clear and convincing evidence, that the patents-in-suit did not teach how the patented system would perform certain necessary steps in the context of movies, which did not have easily separable character functions as video games did. In addition, expert testimony clearly established that, as a result of such technical differences, one skilled in the art would not be able to apply the patents' teachings to movies. Therefore, the Federal Circuit held that the district court correctly granted summary judgment of invalidity for lack of enablement.

2. Written description

Paragraph one of 35 U.S.C. § 112 also requires “a written description of the invention.” The Federal Circuit has explained that the written description requirement is separate and distinct from the enablement requirement. No particular form of disclosure is

1311. Id. at 995, 85 U.S.P.Q.2d (BNA) at 1827.
1312. Id. at 995, 85 U.S.P.Q.2d (BNA) at 1827.
1313. Id. at 996, 85 U.S.P.Q.2d (BNA) at 1827.
1314. Id. at 998, 85 U.S.P.Q.2d (BNA) at 1829.
1315. Id. at 996–97, 85 U.S.P.Q.2d (BNA) at 1827.
1316. Id. at 999, 85 U.S.P.Q.2d (BNA) at 1830 (quoting Nat'l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc., 166 F.3d 1190, 1195–96, 49 U.S.P.Q.2d (BNA) 1671, 1675 (Fed. Cir. 1999)).
1317. Id. at 1000, 85 U.S.P.Q.2d (BNA) at 1831.
1318. Id. at 1000–01, 85 U.S.P.Q.2d (BNA) at 1831.
1319. Id. at 1000, 85 U.S.P.Q.2d (BNA) at 1831.
required, but the written description must be sufficient to convey to one of ordinary skill in the art that the patentee was “in possession” of the invention, i.e., that the patentee invented what is claimed.\textsuperscript{1322} Satisfaction of the written description requirement is an issue of fact.\textsuperscript{1323} The sufficiency of a patent’s written description is evaluated as of the filing date of the patent; therefore, the inquiry centers on the original disclosure and the originally filed claims.\textsuperscript{1324}

In Carnegie Mellon University v. Hoffmann-LaRoche, Inc.,\textsuperscript{1325} the Federal Circuit affirmed summary judgment of invalidity of patents concerning recombinant plasmids, where the patent specifications failed to provide adequate written description support for the full genus of plasmids claimed.\textsuperscript{1326} Discussing its precedent in Regents of University of California v. Eli Lilly & Co.,\textsuperscript{1327} the court explained that “to satisfy the written description requirement for a claimed genus, a specification must describe the claimed invention in such a way that a person of skill in the art would understand that the genus that is being claimed has been invented, not just a species of the genus.”\textsuperscript{1328}

Contrary to this rule, the facts showed that the asserted claims encompassed an entire genus of recombinant plasmids containing coding sequences of DNA polymerase from any bacterial source, while the more narrow specifications of the patents disclosed solely the polA gene coding sequence from a single bacterial source.\textsuperscript{1329} Particularly in light of record evidence showing that the polA gene varied among different bacterial sources, the court agreed with the district court that this narrow disclosure was insufficient, under Eli Lilly, to support the much broader scope of the claims.\textsuperscript{1330} Thus, the patent holders did not satisfy the written description requirement, and the patents were invalid.\textsuperscript{1331}

\textsuperscript{1322} In re Alton, 76 F.3d 1168, 1172, 37 U.S.P.Q.2d (BNA) 1578, 1581 (Fed. Cir. 1996); VasCath, 935 F.2d at 1563–64, 19 U.S.P.Q.2d (BNA) at 1111, 1117; see O’Reilly v. Morse, 56 U.S. 62, 120 (1853) (holding that a patentee “can lawfully claim only what he has invented and described, and if he claims more his patent is void”).
\textsuperscript{1323} VasCath, 935 F.2d at 1563, 19 U.S.P.Q.2d (BNA) at 1116.
\textsuperscript{1325} 541 F.3d 1115, 88 U.S.P.Q.2d (BNA) 1233 (Fed. Cir. 2008). For discussion of this case’s implications on the doctrine of equivalents, see supra notes 840–847 and accompanying text.
\textsuperscript{1326} Id. at 1126, 88 U.S.P.Q.2d (BNA) at 1240.
\textsuperscript{1327} 119 F.3d 1559 (Fed. Cir. 1997).
\textsuperscript{1328} Carnegie Mellon, 541 F.3d at 1124, 88 U.S.P.Q.2d (BNA) at 1239.
\textsuperscript{1329} Id. at 1125, 88 U.S.P.Q.2d (BNA) at 1240.
\textsuperscript{1330} Id. at 1126, 88 U.S.P.Q.2d (BNA) at 1240.
\textsuperscript{1331} Id. at 1127, 88 U.S.P.Q.2d (BNA) at 1241.
The court reached a similar result in In re Alonso, when it affirmed the PTO’s rejection of claims directed to the use of human antibodies to treat a rare form of cancer, where the sole antibody described in the specification was not representative of the “densely populated genus” encompassed by the claims. The court held that the PTO’s conclusion was supported by substantial evidence. Several articles had shown that the type of antibody required for Alonso’s claimed method “var[ied] substantially in their composition.” Nevertheless, Alonso only disclosed a single antibody. Moreover, the specification failed to teach anything “about the structure, epitope characterization, binding affinity, specificity, or pharmacological properties common to the large family of antibodies implicated by the method.” It also did not describe the antigens to which the antibodies of the claimed method must bind. Therefore, the PTO correctly rejected the claims for lack of adequate written description of the full claimed genus.

The court’s opinion in Commonwealth Scientific & Industrial Research Organisation v. Buffalo Technology (USA), Inc. addressed the issue of whether an amendment to a patent application impermissibly added “new matter” to the specification so as to broaden the disclosure beyond what was supported in the written description. As originally filed, the application had described the use of “radio transmissions” to communicate between devices in a wireless local area network. However, the claims were limited to radio transmissions “in excess of 10 GHz.” A later amendment substituted the phrase “radio frequencies” for several references to “in excess of 10 GHz.” This had the effect of “increas[ing] the range of frequencies specifically referenced by [these] passages” to include frequencies between 3 KHz and 300 GHz (the range attributable to “radio frequencies”).

The alleged infringer argued that these amendments improperly broadened the disclosure by adding “new matter” in violation of

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1333. Id. at 1021, 88 U.S.P.Q.2d (BNA) at 1853.
1334. Id. at 1020, 88 U.S.P.Q.2d (BNA) at 1852.
1335. Id. at 1020, 88 U.S.P.Q.2d (BNA) at 1852.
1336. Id. at 1022, 88 U.S.P.Q.2d (BNA) at 1853.
1337. Id. at 1020, 88 U.S.P.Q.2d (BNA) at 1853.
1339. Id. at 1379, 88 U.S.P.Q.2d (BNA) at 1575.
1340. Id., 88 U.S.P.Q.2d (BNA) at 1575.
1341. Id., 88 U.S.P.Q.2d (BNA) at 1575.
1342. Id., 88 U.S.P.Q.2d (BNA) at 1575.
1343. Id., 88 U.S.P.Q.2d (BNA) at 1575.
35 U.S.C. § 132,\textsuperscript{1344} and that the disclosure was no longer supported by the original written description, thus rendering the claims invalid under § 112.\textsuperscript{1345} The district court disagreed, finding that the invention was described broadly enough in the original written description to encompass systems operating at the larger range of frequencies.\textsuperscript{1346}

On appeal, the Federal Circuit found no clear error in the district court’s determination, holding that “there [was] enough material in the original disclosure” to support the broader reading of the invention.\textsuperscript{1347} A close reading of the original application established that the references to a 10 GHz minimum represented “useful embodiments” of the invention, rather than limitations on the claimed subject matter.\textsuperscript{1348} Moreover, the original specification indicated that the frequency range was not limited to greater than 10 GHz; in fact, there were explicit and implicit references to frequencies as low as 1–3 GHz.\textsuperscript{1349} This was further supported by expert testimony, which indicated that a person of ordinary skill would understand that the system permitted continuous transmission at 2–3 GHz.\textsuperscript{1350} Therefore, the Federal Circuit affirmed the district court’s refusal to invalidate the claims based upon the alleged addition of new matter.\textsuperscript{1351}

Judge Lourie concurred, solely for the purpose of pointing out “a reasonable alternative view” regarding the introduction of new matter.\textsuperscript{1352} In light of the full record in the case, Judge Lourie asserted, it would also be reasonable to conclude that the applicants had altered the nature of the specification by their 1995 amendment, thus invalidating the claims.\textsuperscript{1353}

3. Definiteness

As a further condition of patentability, 35 U.S.C. § 112 requires a patent to include claims that “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his

\begin{footnotes}
\textsuperscript{1344} See 35 U.S.C. § 132 (2006) (providing, inter alia, that “[n]o amendment shall introduce new matter into the disclosure of the invention”).
\textsuperscript{1345} Commonwealth Sci. & Indus. Research Org., 542 F.3d at 1379, 88 U.S.P.Q.2d (BNA) at 1575.
\textsuperscript{1346} Id. at 1380, 88 U.S.P.Q.2d (BNA) at 1576.
\textsuperscript{1347} Id., 88 U.S.P.Q.2d (BNA) at 1576.
\textsuperscript{1348} Id., 88 U.S.P.Q.2d (BNA) at 1576.
\textsuperscript{1349} Id. at 1381, 88 U.S.P.Q.2d (BNA) at 1576–77.
\textsuperscript{1350} Id., 88 U.S.P.Q.2d (BNA) at 1577.
\textsuperscript{1351} Id. at 1382, 88 U.S.P.Q.2d (BNA) at 1578.
\textsuperscript{1352} Id. at 1386, 88 U.S.P.Q.2d (BNA) at 1581 (Lourie, J., concurring).
\textsuperscript{1353} Id., 88 U.S.P.Q.2d (BNA) at 1581.
\end{footnotes}
invention.\textsuperscript{1354} This is referred to as the definiteness requirement, and claims that lack particularity and distinctness are deemed indefinite.\textsuperscript{1355} The purpose behind this provision is two-fold: (1) to provide clear warning to others regarding the scope of activities that may constitute infringement and (2) to assist examiners and courts in determining patentability.\textsuperscript{1356} Thus, the only patentable claims are those that “clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise.”\textsuperscript{1357}

Because every claim is presumed to be valid, a claim is indefinite only if it is “not amenable to construction” or “insolubly ambiguous.”\textsuperscript{1358} A claim is not indefinite simply because “it poses a difficult issue of claim construction.”\textsuperscript{1359} In the case of means-plus-function elements, which are limited by statute to “the corresponding structure, material, or acts described in the specification and equivalents thereof,”\textsuperscript{1360} the specification must provide a person of ordinary skill in the art with enough information to “know and understand what structure corresponds to the means limitation.”\textsuperscript{1361}

In Halliburton Energy Services, Inc. v. M-I, LLC,\textsuperscript{1362} the Federal Circuit affirmed summary judgment of invalidity for indefiniteness, where the claim term could not be construed from the disclosures in the patent or distinguished from the disclosed prior art.\textsuperscript{1363} The term at issue was “fragile gel,” as used in a claim for a method of drilling in oil fields.\textsuperscript{1364} Halliburton asserted that the term “fragile gel” referred to a gel that, inter alia: (1) “easily transitions to a liquid state upon the introduction of force (e.g., when drilling starts) and returns to a

\begin{itemize}
  \item[\textsuperscript{1355}] See United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236, 55 U.S.P.Q. (BNA) 381, 385 (1942) (“The statutory requirement of particularity and distinctness in claims is met only when they clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise.”).
  \item[\textsuperscript{1356}] Id., 55 U.S.P.Q. (BNA) at 385.
  \item[\textsuperscript{1357}] Id., 55 U.S.P.Q. (BNA) at 385.
  \item[\textsuperscript{1359}] Exxon, 265 F.3d at 1375, 60 U.S.P.Q.2d (BNA) at 1276.
  \item[\textsuperscript{1360}] 35 U.S.C. § 112 para. 6 (2006).
  \item[\textsuperscript{1362}] 514 F.3d 1244, 85 U.S.P.Q.2d (BNA) 1654 (Fed. Cir. 2008).
  \item[\textsuperscript{1363}] Id. at 1256, 85 U.S.P.Q.2d (BNA) at 1658.
  \item[\textsuperscript{1364}] Id. at 1246, 85 U.S.P.Q.2d (BNA) at 1656.
\end{itemize}
gel when the force is removed (e.g., when drilling stops)” and (2) “is capable of suspending drill cuttings and weighting materials.” The Federal Circuit concluded that neither this proposed definition nor any other construction of the term “fragile gel” could resolve the ambiguity as to its scope in the asserted claims. Therefore, the court affirmed the district court’s judgment of invalidity.

It was not sufficient that the patent specification included a definition of fragile gel that closely tracked the first part of Halliburton’s description set forth above. “Even if a claim term’s definition can be reduced to words, the claim is still indefinite if a person of ordinary skill in the art cannot translate the definition into meaningfully precise claim scope.” Here, nothing in the patent sufficiently defined the requisite degree of fragileness as compared to the prior art; that is, “how much more quickly the gels broke when stress was imposed or how much more quickly the gels reformed when stress was removed.” Likewise, the patent failed to delineate what degree of suspending capability (i.e., gel strength) was required. Because a variety of factors could affect the liquid-gel transitioning or gel strength in a particular oil well (e.g., geology of the terrain, wellbore size, depth, and angle), an ordinary skilled artisan would be unable to determine, from one oil well to the next, whether a particular drilling fluid would fall within the scope of the claimed invention. “When a proposed construction requires that an artisan make a separate infringement determination for every set of circumstances in which the composition may be used, and when such determinations are likely to result in differing outcomes (sometimes infringing and sometimes not), that construction is likely to be indefinite.”

The Federal Circuit also noted that Halliburton’s proposed definition was “functional, i.e., the fluid is defined ‘by what it does rather than what it is.” As the court explained, the Supreme Court has warned against the “dangers of using only functional claim

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1365. Id. at 1250, 85 U.S.P.Q.2d (BNA) at 1659.
1366. Id., 85 U.S.P.Q.2d (BNA) at 1659.
1367. Id., 85 U.S.P.Q.2d (BNA) at 1658.
1368. Id. at 1251, 85 U.S.P.Q.2d (BNA) at 1659.
1370. Id. at 1253, 85 U.S.P.Q.2d (BNA) at 1661 (emphasis added).
1371. Id. at 1254–55, 85 U.S.P.Q.2d (BNA) at 1663.
1372. Id. at 1254–55, 85 U.S.P.Q.2d (BNA) at 1662.
1373. Id. at 1255, 85 U.S.P.Q.2d (BNA) at 1662.
1374. Id., 85 U.S.P.Q.2d (BNA) at 1662 (quoting In re Swinehart, 439 F.2d 210, 212, 169 U.S.P.Q. (BNA) 226, 228 (C.C.P.A. 1971)).
limitations to distinguish the claimed invention from the prior art.\textsuperscript{1375} Although claims are not necessarily indefinite for using functional language, the use of such functional language may fail to clearly delineate the scope of the subject matter claimed, thus rendering the claims indefinite.\textsuperscript{1376} Unlike in Halliburton, the Federal Circuit in Microprocessor Enhancement Corp. v. Texas Instruments, Inc.\textsuperscript{1377} reversed the district court’s summary judgment of invalidity and held that the claims were not indefinite.\textsuperscript{1378} The asserted patent claimed a computer processor architecture and methods for increasing the efficiency of microprocessors.\textsuperscript{1379} At the district court, asserted claims one and seven—claiming a “method of executing instructions in a pipelined processor” and a “pipelined processor,” respectively—were deemed invalid as indefinite on two grounds: (1) that the claims were insolubly ambiguous for requiring that the same word be construed differently in different portions of one claim; and (2) that the claims impermissibly mixed classes of subject matter (i.e., both method and apparatus) within a single claim.\textsuperscript{1380} The Federal Circuit, however, disagreed on both counts, holding that the claims were definite and thus valid.\textsuperscript{1381}

Regarding the use of differing interpretations for the same word within a claim, the court held that the claim was “amenable to construction” and therefore definite.\textsuperscript{1382} Although the term could have had one of two meanings, the appropriate meaning was “readily apparent from each occurrence in context,” and, as used, the term “was not surrounded by uniform language that require[d] a single interpretation.”\textsuperscript{1383} Indeed, although it is generally assumed that a single claim term should be defined consistently throughout all claims of a patent, “the patentee’s mere use of a term with an antecedent [such as ‘said’ or ‘the’] does not require that both terms

\begin{itemize}
  \item \textsuperscript{1376} Id., 85 U.S.P.Q.2d (BNA) at 1662-63 (citing Swindhart, 439 F.2d at 212-13, 169 U.S.P.Q. (BNA) at 228).
  \item \textsuperscript{1377} 520 F.3d 1367, 86 U.S.P.Q.2d (BNA) 1225 (Fed. Cir. 2008).
  \item \textsuperscript{1378} Id. at 1369, 86 U.S.P.Q.2d (BNA) at 1662-63.
  \item \textsuperscript{1379} Id., 86 U.S.P.Q.2d (BNA) at 1226.
  \item \textsuperscript{1380} Id. at 1374, 86 U.S.P.Q.2d (BNA) at 1229.
  \item \textsuperscript{1381} Id., 86 U.S.P.Q.2d (BNA) at 1229.
  \item \textsuperscript{1382} Id. at 1376, 86 U.S.P.Q.2d (BNA) at 1231-32.
  \item \textsuperscript{1383} Id., 86 U.S.P.Q.2d (BNA) at 1232.
\end{itemize}
have the same meaning.” 1384 In light of the evidence, the court concluded that the asserted claims were not insolubly ambiguous. 1385

Regarding the mixing of classes of subject matter, although claim one appeared to recite both a method and an apparatus for executing the method, the court determined that the apparatus description actually served as a component of the preamble, rather than a separate claimed component. 1386 Thus, there was no ambiguity as to the scope of the claim, which was “clearly limited to practicing the claimed method in a pipelined processor possessing the requisite structure.” 1387 Conversely, claim seven was not indefinite simply for using functional language in an apparatus claim. 1388 In fact, functional language is explicitly permitted by statute in the context of means-plus-function limitations, as were employed here. 1389 Moreover, the court found, claim seven was limited to an apparatus possessing a certain structure and merely capable of performing certain functions. 1390 Therefore, the claim was not indefinite.

In Aristocrat Technologies Australia Pty Ltd. v. International Game Technology, 1392 the court addressed the definiteness requirement in the context of means-plus-function claims directed to a computer-implemented invention. 1393 The patent-in-suit, the ‘102 patent, disclosed an electronic slot machine that allowed a user to select her own combinations of winning symbol positions. 1394 Appearing in several places in the asserted claims were the terms “control means” and “game control means,” which the parties agreed were means-plus-function terms invoking 35 U.S.C. § 112 para. 6. 1395 The patent owner, Aristocrat, conceded that the only part of the specification describing the structure that performed the functions of the “control means” was a statement that one of ordinary skill in the art could “introduce the methodology on any standard microprocessor base

1384. Id. at 1375, 86 U.S.P.Q.2d (BNA) at 1231 (citing Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342, 60 U.S.P.Q.2d (BNA) 1851 (Fed. Cir. 2001); Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1356-57, 52 U.S.P.Q.2d (BNA) 1029, 1032 (Fed. Cir. 1999)) (emphasis added).
1385. Id., 86 U.S.P.Q.2d (BNA) at 1230.
1386. Id. at 1374–75, 86 U.S.P.Q.2d (BNA) at 1230.
1387. Id. at 1375, 86 U.S.P.Q.2d (BNA) at 1230.
1388. Id., 86 U.S.P.Q.2d (BNA) at 1230.
1390. Id., 86 U.S.P.Q.2d (BNA) at 1230.
1391. Id., 86 U.S.P.Q.2d (BNA) at 1230.
1393. Id. at 1375, 86 U.S.P.Q.2d (BNA) at 1230.
1394. Id. at 1330, 86 U.S.P.Q.2d (BNA) at 1237.
1395. Id. at 1331, 86 U.S.P.Q.2d (BNA) at 1238.
The district court held that this constituted an insufficient disclosure of the requisite structure under § 112 and concluded that the claims were invalid for indefiniteness.\textsuperscript{1397}

The Federal Circuit affirmed the decision, explaining that

\textit{[i]n cases involving a computer-implemented invention in which the inventor has invoked means-plus-function claiming, this court has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor . . . . For a patentee to claim a means for performing a particular function and then to disclose only a general purpose computer as the structure designed to perform that function amounts to pure functional claiming.}\textsuperscript{1398}

Thus, the corresponding structure for a computer-implemented function is “not [a] general purpose computer, or microprocessor, but rather [a] special purpose computer programmed to perform [a] disclosed algorithm.\textsuperscript{1399}

Here, the ‘102 patent’s references to a “standard microprocessor” and “appropriate programming” were insufficient to describe a structure capable of performing the required functions.\textsuperscript{1400} The specification disclosed no more than a general purpose computer.\textsuperscript{1401} Although Aristocrat “was not required to produce a listing of source code or a highly detailed description of the algorithm to be used,” it was required, at the very least, to provide some algorithm that “transform[ed] the general purpose microprocessor [in]to a ‘special purpose computer’” to satisfy the corresponding structure requirement for means-plus-function claims.\textsuperscript{1402} Because it had not, the district court properly adjudged the claims invalid as indefinite.\textsuperscript{1403}

Two subsequent 2008 decisions reached a similar conclusion. In Finisar Corp. v. The DirecTV Group, Inc.,\textsuperscript{1404} the Federal Circuit upheld the district court’s determination that a means-plus-function claim directed to scheduling satellite or cable broadcasts was indefinite, where the patent simply recited that “software” performed the disclosed function.\textsuperscript{1405} The district court correctly noted that this

\textsuperscript{1396} Id. at 1334, 86 U.S.P.Q.2d (BNA) at 1240 (citation omitted).
\textsuperscript{1397} Id. at 1333, 86 U.S.P.Q.2d (BNA) at 1239.
\textsuperscript{1398} Id., 86 U.S.P.Q.2d (BNA) at 1240.
\textsuperscript{1399} Id., 86 U.S.P.Q.2d (BNA) at 1240 (quoting WMS Gaming, Inc. v. Int’l Game Tech., 184 F.3d 1339, 1349, 51 U.S.P.Q.2d (BNA) 1385, 1391 (Fed. Cir. 1999)).
\textsuperscript{1400} Id. at 1334, 86 U.S.P.Q.2d (BNA) at 1240.
\textsuperscript{1401} Id., 86 U.S.P.Q.2d (BNA) at 1240.
\textsuperscript{1402} Id. at 1338, 86 U.S.P.Q.2d (BNA) at 1243.
\textsuperscript{1403} Id., 86 U.S.P.Q.2d (BNA) at 1243.
\textsuperscript{1404} 523 F.3d 1323, 86 U.S.P.Q.2d (BNA) 1609 (Fed. Cir. 2008).
\textsuperscript{1405} Id. at 1364, 1366, 86 U.S.P.Q.2d (BNA) at 1611, 1623.
constituted an insufficient disclosure of the purported structure, as it provided no detail about the means to accomplish the function.\textsuperscript{1406} Because the patent disclosed no algorithm or description of the requisite structure, the claims were invalid for indefiniteness.\textsuperscript{1407} Likewise, the court in Net MoneyIN, Inc. v. Verisign, Inc.\textsuperscript{1408} affirmed the trial court’s judgment of invalidity due to indefiniteness where the specification failed to disclose an algorithm by which the general “bank computer” performed the function of “generating an authorization indicia” for online credit card transactions.\textsuperscript{1409}

In Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.,\textsuperscript{1410} the Federal Circuit reversed a judgment of invalidity due to indefiniteness, where the district court’s determination was based upon an incorrect understanding of the law regarding claim definiteness.\textsuperscript{1411} In the claims at issue, which were directed to a method of curing tobacco, one limitation required “an airflow sufficient to substantially prevent an anaerobic condition around the vicinity of [the tobacco plants].”\textsuperscript{1412} The district court determined that the term “anaerobic condition” was indefinite and granted summary judgment for the defendants.\textsuperscript{1413}

Reversing, the Federal Circuit noted that “[w]hen a word of degree is used . . . the patent’s specification [must] provide[] some standard for measuring that degree” in order to be deemed definite.\textsuperscript{1414} Because an “anaerobic condition” implies some degree of oxygen deficiency, it was necessary to show, within the patent specification, a standard for measuring that condition.\textsuperscript{1415} The standard, held the court, was clearly established within the patent.\textsuperscript{1416} The claims explicitly referred to curing in an anaerobic environment in order to “substantially prevent the formation of at least one nitrosamine.”\textsuperscript{1417} Moreover, the district court had construed the “substantially prevent” term, based upon the intrinsic record, to mean a series of defined

\begin{itemize}
\item Id. at 1340–41, 86 U.S.P.Q.2d (BNA) at 1623.
\item Id., 86 U.S.P.Q.2d (BNA) at 1623.
\item 545 F.3d 1359, 88 U.S.P.Q.2d (BNA) 1751 (Fed. Cir. 2008).
\item Id. at 1362, 1365–67, 88 U.S.P.Q.2d (BNA) at 1753, 1755, 1757.
\item 537 F.3d 1357, 88 U.S.P.Q.2d (BNA) 1001 (Fed. Cir. 2008).
\item Id. at 1360–61, 88 U.S.P.Q.2d (BNA) at 1002.
\item Id. at 1360, 1364, 88 U.S.P.Q.2d (BNA) at 1005.
\item Id. at 1360, 88 U.S.P.Q.2d (BNA) at 1002.
\item Id. at 1372, 88 U.S.P.Q.2d (BNA) at 1011 (citing Datamize LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1351, 75 U.S.P.Q.2d (BNA) 1801, 1801 (Fed. Cir. 2005)) (alterations in original).
\item Id. at 1372, 88 U.S.P.Q.2d (BNA) at 1011.
\item Id. at 1360, 88 U.S.P.Q.2d (BNA) at 1002.
\item Id. at 1372, 88 U.S.P.Q.2d (BNA) at 1012 (citation omitted).
\end{itemize}
numerical ranges for levels of particular nitrosamine compounds.\textsuperscript{1418} Thus, because one of ordinary skill in the art could ascertain the existence of an “anaerobic condition” by measuring the levels of the various nitrosamines, the term was not insolubly ambiguous.\textsuperscript{1419}

“The district court’s contrary conclusion,” noted the Federal Circuit, “was based on its misunderstanding that claim definiteness requires that a potential infringer be able to determine if a process infringes before practicing the claimed process.”\textsuperscript{1420} However, this is incorrect under the court’s precedent.\textsuperscript{1421} “The test for indefiniteness does not depend on a potential infringer’s ability to ascertain the nature of its own accused product to determine infringement, but instead on whether the claim delineates to a skilled artisan the bounds of the invention.”\textsuperscript{1422} Because the term “anaerobic condition,” as construed by the district court, sufficiently delineated the bounds of the claim, it was not indefinite.\textsuperscript{1423}

E. Double Patenting

The judicially created doctrine of obviousness-type double patenting prevents one inventor from obtaining more than one valid patent on essentially the same invention, by precluding attempts to “claim inventions so alike that granting both exclusive rights would effectively extend the life of patent protection.”\textsuperscript{1424} An analysis of double patenting consists of two steps: (1) construing the claims of the two patents to determine the differences; and (2) determining whether the differences render the claims patentably distinct.\textsuperscript{1425} “A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim.”\textsuperscript{1426}

In the examination context, the courts typically use a one-way test, in which “the examiner asks whether the application claims are

\textsuperscript{1418} Id., 88 U.S.P.Q.2d (BNA) at 1012.
\textsuperscript{1419} Id., 88 U.S.P.Q.2d (BNA) at 1012.
\textsuperscript{1420} Id., 88 U.S.P.Q.2d (BNA) at 1012.
\textsuperscript{1421} Id. at 1372–73, 88 U.S.P.Q.2d (BNA) at 1012.
\textsuperscript{1423} Star Scientific, 537 F.3d at 1373, 88 U.S.P.Q.2d (BNA) at 1012.
\textsuperscript{1424} In re Metoprolol Succinate Patent Litig., 494 F.3d 1011, 1016, 83 U.S.P.Q.2d (BNA) 1545, 1548 (Fed. Cir. 2007) (citation omitted).
\textsuperscript{1425} Eli Lilly & Co. v. Barr Labs., Inc., 251 F.3d 955, 968, 58 U.S.P.Q.2d (BNA) 1869, 1878 (Fed. Cir. 2001).
\textsuperscript{1426} Id., 58 U.S.P.Q.2d (BNA) at 1878.
obvious over the patent claims.”\textsuperscript{1427} In rare circumstances, however, where an applicant has been unable to issue its first-filed application, a two-way test may apply, in which “the examiner also asks whether the patent claims are obvious over the application claims.”\textsuperscript{1428} The two-way test is “a narrow exception”\textsuperscript{1429} that may apply only where “the PTO is solely responsible for . . . delay” that causes a second-filed improvement application to issue prior to a first-filed basic application.\textsuperscript{1430} Double patenting is a question of law that is reviewed de novo.\textsuperscript{1431}

In Pfizer, Inc. v. Teva Pharmaceuticals USA Inc.,\textsuperscript{1432} the Federal Circuit concluded that the district court had erred when it did not hold a patent invalid on the grounds of double patenting.\textsuperscript{1433} The patents-in-suit, owned by Pfizer, covered a genus of non-steroidal anti-inflammatory compounds that included the compound celoxib—the active ingredient in Pfizer’s arthritis drug Celebrex.\textsuperscript{1434} During prosecution, Pfizer had responded to the examiner’s restriction requirement by electing to pursue only some of its composition claims in the original application (which ultimately issued as the ‘823 patent), while pursuing the restricted-out composition claims in a divisional application (which became the ‘165 patent) and the restricted-out method claims in a continuation-in-part application (which became the ‘068 patent).\textsuperscript{1435} In the resulting Hatch-Waxman Act infringement suit, Teva Pharmaceuticals argued that the ‘068 patent was invalid due to obviousness-type double patenting, because the ‘165 patent constituted prior art to the ‘068 patent.\textsuperscript{1436} Although the district court determined that the relevant claims of the ‘068 patent and ‘165 patent were not patentably distinct, it nonetheless determined that the ‘068 patent was valid under the “safe-harbor” provision of 35 U.S.C. § 121.\textsuperscript{1437}

On appeal, the Federal Circuit agreed with the trial court that the relevant claims of the two patents were not patentably distinct, because the ‘068 claims simply recited methods of administering a

\textsuperscript{1427} In re Berg, 140 F.3d 1428, 1432, 46 U.S.P.Q.2d (BNA) 1226, 1229 (Fed. Cir. 1998).
\textsuperscript{1428} Id. at 1432, 46 U.S.P.Q.2d (BNA) at 1229.
\textsuperscript{1429} Id., 46 U.S.P.Q.2d (BNA) at 1229.
\textsuperscript{1430} Id. at 1437, 46 U.S.P.Q.2d (BNA) at 1233.
\textsuperscript{1432} 518 F.3d 1353, 86 U.S.P.Q.2d (BNA) 1001 (Fed. Cir. 2008).
\textsuperscript{1433} Id. at 1357, 86 U.S.P.Q.2d (BNA) at 1003.
\textsuperscript{1434} Id. at 1356, 86 U.S.P.Q.2d (BNA) at 1003.
\textsuperscript{1435} Id. at 1357–58, 86 U.S.P.Q.2d (BNA) at 1004.
\textsuperscript{1436} Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1005.
\textsuperscript{1437} Id., 86 U.S.P.Q.2d (BNA) at 1005.
“therapeutically-effective amount” of the compounds claimed in the ‘165 patent and the term “therapeutically-effective amount” appeared in the ‘165 patent and was stipulated to have identical meaning in both patents. Nevertheless, the court disagreed with the trial court’s conclusion that the ‘068 patent could claim protection under § 121’s so-called safe harbor provision.

Under the safe harbor provision of § 121,

[a] patent issuing on an application with respect to which a requirement for restriction under this section has been made, or on an application filed as a result of such a requirement, shall not be used as a reference either in the Patent and Trademark Office or in the courts against a divisional application or against the original application or any patent issued on either of them, if the divisional application is filed before the issuance of the patent on the other application.

Reviewing the statutory language, the legislative history, and Federal Circuit precedent, the court ultimately concluded that “the protection afforded by section 121 to applications (or patents issued therefrom) filed as a result of a restriction requirement is limited to divisional applications.” Not only do both the statute’s literal language and the legislative history “refer[] specifically to ‘divisional application[s],’” but there are also “plausible reasons” why Congress would have limited the safe harbor provision to divisional applications. In particular, “[i]f the section had included CIPs, which by definition contain new matter, the section might be read as providing the earlier priority date even as to the new matter, contrary to the usual rule that new matter is not entitled to the priority date of the original application.” Therefore, the court concluded, because the ‘068 patent was filed as a continuation-in-part application, rather than as a divisional application, it did not fall under the safe harbor provision, and as a result, it could be—and it was—invalidated by the ‘165 patent.

In re Basell Poliolefine Italia S.P.A., a majority of the Federal Circuit panel affirmed the Board of Patent Appeals and Interferences’ (the “Board”) rejection, based on obviousness-type

1438. Id. at 1363, 86 U.S.P.Q.2d (BNA) at 1008.
1439. Id. at 1356, 86 U.S.P.Q.2d (BNA) at 1002–03.
1440. Id. at 1359, 86 U.S.P.Q.2d (BNA) at 1005.
1441. Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1007.
1442. Id. at 1360, 86 U.S.P.Q.2d (BNA) at 1006.
1443. Id. at 1361, 86 U.S.P.Q.2d (BNA) at 1007.
1444. Id., 86 U.S.P.Q.2d (BNA) at 1007.
1445. Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1007.
1446. 547 F.3d 1371, 89 U.S.P.Q.2d (BNA) 1030 (Fed. Cir. 2008).
double patenting, of claims directed to a method of polymerizing unsaturated hydrocarbons.\textsuperscript{1447} The claims at issue were contained within the ‘687 patent, which had derived from a 1955 application that was not issued until 2002, following a long series of continuations and divisionals.\textsuperscript{1448} Shortly after the ‘687 patent issued, the PTO initiated a Director-ordered reexamination, which reviewed all claims for double patenting, in view of several expired patents issued to one of the ‘687 inventors, and ultimately concluded that the ‘687 claims were unpatentable in light of the expired ‘987 patent.\textsuperscript{1449} The Board affirmed.\textsuperscript{1450}

The Federal Circuit held, as an initial matter, that the Board did not err in applying a one-way test, rather than a two-way test, for double patenting because the patentees’ own actions or inactions were directly responsible for the delay in prosecution.\textsuperscript{1451} In particular, the patentees “did not present any claim resembling the claims at issue until 1964, nine years after . . . fil[ing] the first U.S. application in the chain of priority,” and the patentees had repeatedly submitted claims covering other inventions, urged the examiner to declare interferences for unrelated inventions, and filed numerous continuing applications without appeal.\textsuperscript{1452} The Federal Circuit majority then concluded that the patent claims at issue were not patentably distinct from the claims of the expired ‘987 patent.\textsuperscript{1453} This was because both sets of claims could be read to cover the polymerization of ethylene with alpha-olefins of C\textsubscript{4} to C\textsubscript{6}, using catalysts of titanium halides and aluminum alkyls.\textsuperscript{1454} Indeed, “the[] claims are both generic and specific to each other in interchangeable ways, involving the same groups of species.”\textsuperscript{1455} Therefore, the court held that the ‘687 claims were not patentable as a result of double patenting.\textsuperscript{1456}

In dissent, Judge Newman argued that the PTO’s reexamination of the ‘687 claims occurred in violation of reexamination law as it then existed.\textsuperscript{1457} In particular, prior to November 2, 2002, reexamination “was available only on certain grounds not considered during the

\begin{thebibliography}{1459}
\bibitem{1447} Id. at 1373, 89 U.S.P.Q.2d (BNA) at 1032.
\bibitem{1448} Id., 89 U.S.P.Q. 2d (BNA) at 1032.
\bibitem{1449} Id. at 1374, 89 U.S.P.Q.2d (BNA) at 1032.
\bibitem{1450} Id., 89 U.S.P.Q.2d (BNA) at 1032.
\bibitem{1451} Id. at 1376, 89 U.S.P.Q.2d (BNA) at 1034.
\bibitem{1452} Id., 89 U.S.P.Q.2d (BNA) at 1034.
\bibitem{1453} Id. at 1377, 89 U.S.P.Q.2d (BNA) at 1035.
\bibitem{1454} Id. at 1377-78, 89 U.S.P.Q. 2d (BNA) at 1035.
\bibitem{1455} Id. at 1378, 89 U.S.P.Q.2d (BNA) at 1035.
\bibitem{1456} Id. at 1373, 89 U.S.P.Q.2d (BNA) at 1031–32.
\bibitem{1457} Id. at 1379, 89 U.S.P.Q.2d (BNA) at 1037.
\end{thebibliography}
initial examination.” Nevertheless, Judge Newman asserted, the PTO ordered reexamination based on double patenting in June 2002, even though the examiner had already considered the issue of double patenting during the initial examination of the claims. Judge Newman also argued that it was “unfair to chastise [the] patentee[s]” for the delay in issuing the patent, when “most of the delay was agreed by the PTO to be due to its procedures [for interferences].” Finally, Judge Newman argued that the PTO’s own findings, as well as expert testimony, establish that the claims of the ‘687 patent were patentably distinct from those of the ‘987 patent.

VI. UNENFORCEABILITY

A. Inequitable Conduct

A patent applicant’s duty of candor and good faith includes the duty to disclose information known to the applicant to be material to patentability. Breach of this duty constitutes inequitable conduct and renders an entire patent unenforceable. To prove inequitable conduct, an accused infringer must present clear and convincing evidence of at least a threshold level of materiality and intent to deceive the U.S. Patent and Trademark Office (“PTO”). Even if this showing is made, however, the district court must balance the equities to determine whether the applicant’s conduct was so egregious as to warrant holding the entire patent unenforceable. The district court may thus decline to render the patent unenforceable even in the face of clear and convincing evidence of materiality and intent to deceive. The materiality prong may be proven with evidence that an applicant “made an affirmative misrepresentation of material fact, failed to disclose material information, or submitted false material information.” Information is material “when a reasonable examiner would consider

1458. Id. at 1380, 89 U.S.P.Q.2d (BNA) at 1037.
1459. Id., 89 U.S.P.Q.2d (BNA) at 1037.
1460. Id. at 1381, 89 U.S.P.Q.2d (BNA) at 1038.
1461. Id. at 1381–82, 89 U.S.P.Q.2d (BNA) at 1038.
1462. 37 C.F.R. § 1.56(a) (2009).
1464. Id. at 1365, 87 U.S.P.Q.2d (BNA) at 1225.
1465. Id. at 1365, 87 U.S.P.Q.2d (BNA) at 1225.
1466. Id., 87 U.S.P.Q.2d (BNA) at 1225.
1467. Id. at 1365, 88 U.S.P.Q.2d (BNA) at 1006 (quoting Cargill, Inc. v. Canbra Foods, Ltd., 476 F.3d 1359, 1363, 81 U.S.P.Q.2d (BNA) 1705, 1708 (Fed. Cir. 2006)).
it important in deciding whether to allow the application to issue as a patent.

The deceptive intent prong requires that the “applicant had the specific intent to . . . mislead[] or deceptively[] or deceiv[e] the PTO.” Because direct evidence of deceptive intent is often not available, the Federal Circuit has held that intent may be inferred from indirect and circumstantial evidence. This indirect and circumstantial evidence must still be clear and convincing, however, and an inference of deceptive intent drawn from such evidence must be “the single most reasonable inference able to be drawn.” If the evidence is susceptible of multiple reasonable inferences, a district court must consider all inferences and render a judgment on the evidence “as informed by the range of reasonable inferences.” A district court “errs in overlooking one inference in favor of another equally reasonable inference.”

In balancing the equities after threshold showings of materiality and deceptive intent, the district court may weigh the substance of the facts underlying those showings and all of the equities of the case. In this balancing, the materiality and intent inquiries are not independent. “The more material the omission or the misrepresentation, the lower [the] level of intent . . . required to establish inequitable conduct, and vice versa.”

While factual findings on the threshold issues of materiality and intent are reviewed for clear error, the district court’s ultimate

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1471. Id., 88 U.S.P.Q.2d (BNA) at 1007 (citing Cargill, 476 F.3d at 1364, 81 U.S.P.Q.2d (BNA) at 1710).
1473. Star Scientific, 528 F.3d at 1376, 87 U.S.P.Q.2d (BNA) at 1233.
1474. Id., 88 U.S.P.Q.2d (BNA) at 1008.
1476. Star Scientific, 528 F.3d at 1376, 87 U.S.P.Q.2d (BNA) at 1233.
1477. Reversal for clear error of a district court’s determination requires “a ‘definite and firm conviction’ that a mistake has been made.” Monsanto Co. v. Bayer
determination that an applicant committed inequitable conduct is reviewed for abuse of discretion.\textsuperscript{1478}

In Scanner Technologies Corp. v. ICOS Vision Systems Corp.,\textsuperscript{1479} the Federal Circuit held that the district court erred in finding materiality because it did not consider all reasonable inferences from the evidence.\textsuperscript{1480} The applicant had stated in a petition to make special that he made a “rigid comparison” of the claims of the application with the alleged infringing device when, in fact, he had never actually seen the device.\textsuperscript{1481} Reasoning that the applicant’s statement suggested that he had seen the device, the district court deemed the applicant to have made a false statement to the PTO.\textsuperscript{1482} The Federal Circuit found that, although it was reasonable for the district court to infer that “rigid comparison” meant a physical inspection of the infringing device, it was equally reasonable to infer that the applicant had made a comparison using the infringing device’s product literature, especially because the applicant cited the literature in its petition.\textsuperscript{1483} This alternative inference was also reasonable because product literature may provide just as much information as a physical inspection.\textsuperscript{1484} Accordingly, the Federal Circuit held that the district court failed to draw all reasonable inferences on the factual findings to show materiality.\textsuperscript{1485}

In Scanner Technologies, the Federal Circuit also reaffirmed that “a false statement that succeeds in expediting the application is, as a matter of law, material for purposes of assessing the issue of inequitable conduct.”\textsuperscript{1486} Inequitable conduct may thus be shown in the absence of a misrepresentation bearing on the patentability of the claims in the application.\textsuperscript{1487}

“An inference of intent to deceive is generally appropriate . . . when (1) highly material information is withheld; (2) ‘the applicant knew of the [prior art and] knew or should have known of [its}
materiality . . . ; and (3) the applicant has not provided a credible [good faith] explanation’’ for failing to disclose prior art to the PTO. In Praxair, Inc. v. ATMI, Inc., the Federal Circuit affirmed
the district court’s finding that one patent was unenforceable due to inequitable conduct, concluding that the district court properly inferred deceptive intent. First, the undisclosed prior art was material. The feature (“use of a small, flow-restricting hole”) of the prior art devices that the applicant failed to disclose was similar to the use of capillaries to “restrict fluid flow” in the asserted patent. Second, intent to deceive was inferred from the high degree of materiality of the prior art to the patent, as confirmed by four statements made in the course of prosecution, the applicant’s knowledge of the highly material, undisclosed prior art and the applicant’s lack of a good faith explanation. In particular, the applicant’s conclusory testimony that he never intentionally misled the PTO in his career and that he did not knowingly withhold any information during prosecution was “entitled to no weight.” Although the applicant provided additional testimony that could at best be interpreted as an explanation that he believed the prior art to be cumulative, this did not provide a sufficient good faith explanation because it was a “[h]indsight construction of reasons why a reference might have been withheld.”

1490. Id. at 1318, 88 U.S.P.Q.2d (BNA) at 1713. The Federal Circuit reversed the district court’s finding of inequitable conduct as to the ‘609 patent for failure to prove deceptive intent. See id. at 1318–19, 88 U.S.P.Q.2d (BNA) at 1713–14 (finding that the statements indicating deceptive intent concerning the other patent were made after the issuance a “notice of allowability indicating that all claims of the ‘609 patent would be issued”).
1491. Id. at 1314, 88 U.S.P.Q.2d (BNA) at 1710–11.
1492. Id. at 1315–16, 88 U.S.P.Q.2d (BNA) at 1711–12 (“(1) The prior art did not teach the claimed ‘extreme limitation in flow’ used to provide a commercially practical container that prevents the catastrophic discharge of toxic contents; (2) Existing safety measures were limited to ‘highly complex methods’ and ‘elaborate systems;’ (3) There was no indication in the prior art to use ‘severe flow restriction’ to overcome[] the problems of delivering highly toxic fluids from portable containers; and (4) “[N]one of the prior art comes close to disclosing a restriction in the flow path from a pressurized container that has a diameter that does not exceed 0.2 mm.” (quoting Praxair, Inc. v. ATMI, Inc., 445 F. Supp. 2d 473, 480 n.8 (D. Del. 2006)) (alterations in original)).
1493. Id. at 1316–17, 88 U.S.P.Q.2d (BNA) at 1712–13.
1494. Id. at 1317–18, 88 U.S.P.Q.2d (BNA) at 1713.
1495. Id. at 1317, 88 U.S.P.Q.2d (BNA) at 1713 (citations omitted).
1496. Id. at 1317–18, 88 U.S.P.Q.2d (BNA) at 1713.
prosecution, and the applicant never stated that cumulativeness was the reason he failed to disclose the prior art.\textsuperscript{1497}

Judge Lourie dissented regarding the inequitable conduct holding because the majority inferred intent but cited no evidence of intent to deceive, thereby “incorrectly conflating intent with materiality . . . . Non-citation of a reference does not necessarily justify an inference of intent to deceive.”\textsuperscript{1498}

In Aventis Pharma S.A. v. Amphastar Pharmaceuticals, Inc.,\textsuperscript{1499} the Federal Circuit affirmed the district court’s finding of intent to deceive in the patentee’s failure to disclose that the half-life comparisons between the claimed compound and the prior art were at different dosages.\textsuperscript{1500} On a prior appeal, the Federal Circuit remanded the question of deceptive intent, holding that the district court had failed to consider the reasonable inference that the failure to disclose different dosages in the applicant’s declaration may have been due to mere inadvertence, if making a comparison at different dosages was indeed reasonable.\textsuperscript{1501} On remand, the district court again found intent to deceive.\textsuperscript{1502} In its second appeal, the patentee presented a different justification for its failure to disclose the use of different dosages in its half-life comparisons. The patentee argued that the dosage information was not material because the half-life comparisons using different dosages were intended to show a difference in properties, which was relevant to—and in response to—an obviousness rejection.\textsuperscript{1503} The half-life comparisons were not intended to address the anticipation rejection, for which comparisons using equivalent dosages would be relevant.\textsuperscript{1504} The Federal Circuit rejected this argument, relying in part on the patentee’s failure to “delineate between evidence intended to address the anticipation rejection and evidence intended to address the obviousness rejection.”\textsuperscript{1505} The court concluded that the district court properly found that the half-life comparisons were directed to both the anticipation and obviousness rejections, and “to the extent that they

\textsuperscript{1497} Id., 88 U.S.P.Q.2d (BNA) at 1713.
\textsuperscript{1498} Id. at 1329, 88 U.S.P.Q.2d (BNA) at 1722 (Lourie, J., dissenting) (citing M. Eagles Tool Warehouse, Inc. v. Fisher Tooling Co., Inc., 439 F.3d 1335, 1342–43, 78 U.S.P.Q.2d (BNA) 1229, 1236 (Fed. Cir. 2006)).
\textsuperscript{1499} 525 F.3d 1334, 87 U.S.P.Q.2d (BNA) 1110 (Fed. Cir. 2008).
\textsuperscript{1500} Id. at 1346, 87 U.S.P.Q.2d (BNA) at 1120.
\textsuperscript{1501} Id. at 1342, 87 U.S.P.Q.2d (BNA) at 1116–17.
\textsuperscript{1502} Id. at 1346, 87 U.S.P.Q.2d (BNA) at 1117.
\textsuperscript{1503} Id., 87 U.S.P.Q.2d (BNA) at 1117.
\textsuperscript{1504} Id. at 1344, 87 U.S.P.Q.2d (BNA) at 1118.
\textsuperscript{1505} Id. at 1346, 87 U.S.P.Q.2d (BNA) at 1119–20.
were intended to address the anticipation rejection, the failure to disclose dosage information evidenced intent to deceive.\footnote{Id., 87 U.S.P.Q.2d (BNA) at 1120.}

Judge Rader dissented, noting that inequitable conduct “has taken on a new life as a litigation tactic” that allows a trial court to dispose of a case “without the rigors of claim construction and other patent doctrines.”\footnote{Id. at 1349–50, 87 U.S.P.Q.2d (BNA) at 1122 (Rader, J., dissenting).} In numerous cases, including Aventis, the district court has “elected to try [inequitable conduct] in advance of the issues of infringement and validity.”\footnote{Id. at 1350, 87 U.S.P.Q.2d (BNA) at 1122–23 (citing Frazier v. Roessel Cine Photo Tech, Inc., 417 F.3d 1230, 75 U.S.P.Q.2d (BNA) 1822 (Fed. Cir. 2005); Semiconductor Energy Lab. Co. v. Samsung Elecs. Co., 204 F.3d 1368, 54 U.S.P.Q.2d (BNA) 1001 (Fed. Cir. 2000)).}

Citing the Federal Circuit’s Kingsdown Medical Consultants, Ltd. v. Hollister Inc.\footnote{Kingsdown Med. Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 876, 9 U.S.P.Q.2d (BNA) 1384, 1392 (Fed. Cir. 1988) (en banc).} opinion,\footnote{Aventis, 525 F.3d at 1350, 87 U.S.P.Q.2d (BNA) at 1123 (Rader, J., dissenting).} Judge Rader noted that inequitable conduct is “not a remedy for every mistake, blunder, or fault in the patent procurement process.”\footnote{Id. at 1351, 87 U.S.P.Q.2d (BNA) at 1124.} In Aventis, the omission of dosage information was evidence of neglect, rather than culpable intent, because data were not concealed in the declaration but rather submitted without mention of the different doses.\footnote{Id. at 1351–52, 87 U.S.P.Q.2d (BNA) at 1124.}

Furthermore, the chemist who made the declaration explained that the different dosage “did not come to his mind.”\footnote{Id., 87 U.S.P.Q.2d (BNA) at 1124.} Such negligence did “not rise to the level of intent to deceive.”\footnote{Id., 87 U.S.P.Q.2d (BNA) at 1124.}

In Monsanto Co. v. Bayer Bioscience N.V.,\footnote{514 F.3d 1229, 85 U.S.P.Q.2d (BNA) at 1587 (Fed. Cir. 2008).} the Federal Circuit affirmed the district court’s holding that the patentee’s ‘565 patent was unenforceable for inequitable conduct.\footnote{Id. at 1235, 85 U.S.P.Q.2d (BNA) at 1584.} The Federal Circuit held that the failure to disclose notes related to a prior art abstract was material because the patentee made statements about the abstract in support of patentability that “directly contradict[ed]” the notes.\footnote{Id. at 1240, 85 U.S.P.Q.2d (BNA) at 1591.} In reaching this conclusion, the Federal Circuit noted that it “do[es] not suggest that all internal documents of potential relevance must be submitted to the PTO as a matter of course.”\footnote{Id. at 1240, 85 U.S.P.Q.2d (BNA) at 1591.} An inference of deceptive intent was also proper because the prosecuting
attorney was admittedly aware of the notes during prosecution, had discussed the notes with their author, and had conceded that the notes would have been important to the Examiner if they contained reliable information.\textsuperscript{1518} His explanation that he did not understand the notes after discussing them with the notes’ author lacked credibility.\textsuperscript{1519} The Federal Circuit also affirmed the district court’s holding that the patentee’s three other patents were unenforceable for inequitable conduct.\textsuperscript{1520} Although the patentee dismissed its infringement claims under these three patents and covenanted not to sue the defendant for infringement, the district court properly retained jurisdiction to rule on attorney fees and to make findings of inequitable conduct.\textsuperscript{1521}

In Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.,\textsuperscript{1522} the Federal Circuit found that the district court’s factual findings on deceptive intent were clearly erroneous, and reversed the judgment of unenforceability.\textsuperscript{1523} The prosecuting attorney had received a letter that potentially disclosed prior art, yet had concluded that the content was not material to the patent application he was preparing.\textsuperscript{1524} Shortly after filing the patent application, the patentee replaced the attorney.\textsuperscript{1525} The defendant theorized that the patentee replaced its attorney because of concerns about the need to disclose the letter to the PTO.\textsuperscript{1526} However, because there was no evidence indicating that the patentee even knew the contents of the letter or that the letter was the reason that the patentee changed attorneys, the Federal Circuit concluded that the district court had clearly erred in accepting the theory that the patentees replaced the prosecuting attorney in order to prevent disclosure of the letter to the PTO.\textsuperscript{1527} The fact that the applicant did not provide a credible alternative explanation for the attorney’s replacement was not sufficient to warrant an inference of deceptive intent.\textsuperscript{1528}

\begin{itemize}
\item \textsuperscript{1518} Id. at 1241, 85 U.S.P.Q.2d (BNA) at 1592.
\item \textsuperscript{1519} Id., 85 U.S.P.Q.2d (BNA) at 1592.
\item \textsuperscript{1520} Id. at 1243, 85 U.S.P.Q.2d (BNA) at 1593.
\item \textsuperscript{1521} Id. at 1242–43, 85 U.S.P.Q.2d (BNA) at 1592–93 (citing Highway Equip. Co., Inc. v. FE.CO., Ltd., 469 F.3d 1027, 1033 n.1, 81 U.S.P.Q.2d (BNA) 1120, 1124 n.1 (Fed. Cir. 2006)).
\item \textsuperscript{1522} 537 F.3d 1357, 88 U.S.P.Q.2d (BNA) 1001 (Fed. Cir. 2008).
\item \textsuperscript{1523} Id. at 1360, 88 U.S.P.Q.2d (BNA) at 1002.
\item \textsuperscript{1524} Id. at 1361–62, 88 U.S.P.Q.2d (BNA) at 1003.
\item \textsuperscript{1525} Id. at 1363, 88 U.S.P.Q.2d (BNA) at 1004.
\item \textsuperscript{1526} Id. at 1367, 88 U.S.P.Q.2d (BNA) at 1008.
\item \textsuperscript{1527} Id. at 1367–69, 88 U.S.P.Q.2d (BNA) at 1008–09.
\item \textsuperscript{1528} Id. at 1368, 88 U.S.P.Q.2d (BNA) at 1008 (citing M. Eagles Tool Warehouse, Inc. v. Fisher Tooling Co., Inc., 439 F.3d 1335, 1341, 78 U.S.P.Q.2d (BNA) 1229, 1235 (Fed. Cir. 2006)).
\end{itemize}
In Research Corp. Technologies, Inc. v. Microsoft Corp., the Federal Circuit reversed the district court’s finding of inequitable conduct because of the district court’s erroneous analysis of the deceptive intent prong and failure to consider materiality. On materiality, the Federal Circuit held that the patentees’ failure to disclose one of the inventors’ experiments was not material because: (1) the inventors had no obligation to report experiments that occurred after filing of the patent application; (2) the experiments were not necessary to practice the patented invention; and (3) the inventor performed the experiments as part of her continuing doctoral thesis, and not to accomplish the objective of the patents. In its discussion of materiality, the Federal Circuit also noted that the inventor published the experiments in question, and publication “is an act inconsistent with an intent to conceal data from the USPTO.”

On the issue of intent to deceive, the Federal Circuit held that the district court’s analysis was clearly erroneous because the district court improperly focused on the inventor’s stated views at trial regarding the purposes of the patent system. Such views and motives for applying for a patent are “generally irrelevant to a proper determination of inequitable conduct.”

In Eisai Co. v. Dr. Reddy’s Laboratories, Ltd., the Federal Circuit affirmed the judgment of the district court that the alleged infringers had failed to prove the patent unenforceable for inequitable conduct. The patentee’s failure to disclose its own co-pending application for a compound it considered separately patentable was not material because, even if disclosure of the application led to a provisional obviousness-type double-patenting rejection, applicants routinely overcome such rejections. The district court’s finding that the materiality of this potential situation was low was therefore proper. The alleged infringer’s theory that the patentee intended to deceive the PTO by filing its two patent applications separately was also properly rejected by the district court as evidence not rising to the level of inequitable conduct.

1529. 536 F.3d 1247, 87 U.S.P.Q.2d (BNA) 1519 (Fed. Cir. 2008).
1530. Id. at 1253, 87 U.S.P.Q.2d (BNA) at 1524.
1531. Id. at 1252–53, 87 U.S.P.Q.2d (BNA) at 1523–24.
1532. Id. at 1252, 87 U.S.P.Q.2d (BNA) at 1523.
1533. Id. at 1253, 87 U.S.P.Q.2d (BNA) at 1524.
1534. Id., 87 U.S.P.Q.2d (BNA) at 1524.
1535. 533 F.3d 1353, 87 U.S.P.Q.2d (BNA) 1452 (Fed. Cir. 2008).
1536. Id. at 1355, 87 U.S.P.Q.2d (BNA) at 1454.
1537. Id. at 1360, 87 U.S.P.Q.2d (BNA) at 1457–58.
1538. Id., 87 U.S.P.Q.2d (BNA) at 1458.
1539. Id. at 1361, 87 U.S.P.Q.2d (BNA) at 1458.
completely forthcoming," was not deemed an attempt to hide from
the PTO because similar applications are usually assigned to the same
examiner in the same art unit.\footnote{1540}

In Symantec Corp. v. Computer Associates International, Inc.,\footnote{1541} the
Federal Circuit affirmed the district court's findings that the accused
infringer failed to prove the materiality prong for inequitable
conduct.\footnote{1542} First, the Federal Circuit held that an inventor's
declaration that he was "an original, first and joint inventor" was not
false simply because the inventor could not identify his contribution
precisely fourteen years later.\footnote{1543} The inventor and his co-inventor
both testified in general terms that the inventor had come up with
the idea for the invention.\footnote{1544} Second, the Federal Circuit held that
the inventor's declaration that he had practiced in the field of
computer software for ten years and become intimately familiar with
the state of the art was not a misrepresentation simply because he was
"a marketing person" and lacked technical expertise.\footnote{1545} As the
Federal Circuit noted, the "mere fact that he was not a technical
person does nothing to refute" his familiarity with the state of the
art.\footnote{1546} Third, the Federal Circuit concluded that the inventor's
declaration that he reviewed and understood the contents of the
specification, including the claims, when he did not fully understand
the language of the claim contents, was not misleading.\footnote{1547} A "failure
to understand the meaning of the claims," on the other hand, would
"likely be considered material."\footnote{1548}

B. Breach of Duty to Standards Setting Organization

Breach of the duty to disclose relevant intellectual property rights
to a standards-setting organization ("SSO") before the adoption of a
standard may also result in an unenforceability finding.\footnote{1549} The

\footnote{1540. Id., 87 U.S.P.Q.2d (BNA) at 1458.}
\footnote{1541. 522 F.3d 1279, 86 U.S.P.Q.2d (BNA) 1449 (Fed. Cir. 2008).}
\footnote{1542. Id. at 1296–98, 86 U.S.P.Q.2d (BNA) at 1459–61.}
\footnote{1543. Id. at 1297, 86 U.S.P.Q.2d (BNA) at 1460 (citation omitted).}
\footnote{1544. Id., 86 U.S.P.Q.2d (BNA) at 1460.}
\footnote{1545. Id. at 1297–98, 86 U.S.P.Q.2d (BNA) at 1460–61.}
\footnote{1546. Id. at 1298, 86 U.S.P.Q.2d (BNA) at 1460–61.}
\footnote{1547. Id., 86 U.S.P.Q.2d (BNA) at 1461.}
\footnote{1548. Id., 86 U.S.P.Q.2d (BNA) at 1461 (quoting Symantec Corp. v. Computer
2006)) (emphasis added).}
\footnote{1549. See, e.g., Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1010, 89
U.S.P.Q.2d (BNA) 1321, 1325 (Fed. Cir. 2008) (explaining the need for this
disclosure to avoid "patent hold-up" which occurs when a patent holder fails to
disclose intellectual property rights to an SSO "prior to the adoption of a standard"
and, therefore, prevents "industry participants from implementing the standard").}
existence of a disclosure duty is “a legal question with factual underpinnings.”

In Qualcomm Inc. v. Broadcom Corp., the Federal Circuit affirmed the district court’s unenforceability judgment, finding that the plaintiff breached its duty to disclose its patents to a video compression SSO known as the Joint Video Team (“JVT”). Although the language of the JVT policy did not expressly require disclosure by all JVT participants in all circumstances, and only explicitly required disclosure of members submitting technical proposals, the Federal Circuit concluded that participants understood the policy to impose a disclosure duty on all participants. Turning to the scope of the disclosure duty, the Federal Circuit affirmed the district court’s finding that the duty required JVT participants to disclose patents that “reasonably might be necessary” to practice the standard. Finding that the plaintiff had breached that disclosure duty, the Federal Circuit addressed the question of whether the district court was within its authority to order the patents unenforceable against the world. Although the district court had correctly concluded that the patents were unenforceable, the Federal Circuit concluded that its remedy ordering the patents unenforceable against the world was too broad and remanded the judgment with instructions to hold the patents unenforceable only against products that comply with the standard.

C. Improper Inventorship

To show co-inventorship, the alleged co-inventor must “prove his contribution to the conception of the claims by clear and convincing evidence.” An alleged co-inventor’s testimony alone is insufficient
evidence unless it is sufficiently corroborated. Whether an alleged co-inventor’s testimony is sufficiently corroborated is evaluated using a “rule of reason analysis,” which in turn requires an evaluation of all relevant evidence.

In Symantec Corp. v. Computer Associates International, Inc., the alleged co-inventor sought to corroborate his declaration with the named inventor’s notes, which reflected a conversation between the named inventor and the alleged co-inventor. However, the Federal Circuit held that the alleged co-inventor’s declaration lacked the requisite corroboration because the notes at most reflected only that the two had a discussion of the then-current state of the art and did not establish any contribution to the invention by the alleged co-inventor.

D. Laches

The laches defense, when established, bars a patentee’s claims for damages incurred prior to suit. In order to invoke the defense of laches, a defendant must prove: “(1) [that] the plaintiff delayed filing suit for an unreasonable and inexcusable length of time from the time the plaintiff knew or reasonably should have known of its claim against the defendant; and (2) [that] the delay operated to the prejudice or injury of the defendant.”

A rebuttable presumption of laches arises when the patentee delays filing suit for more than six years after the date the patentee knew or should have known of the alleged infringer’s activity. If the alleged infringer shows that the patentee’s delay in filing suit exceeds six years, then the burden shifts to the patentee to rebut the presumption by raising a genuine issue of material fact regarding either the reasonableness of its delay or the lack of prejudice to the

1558. Id., 86 U.S.P.Q.2d (BNA) at 1459 (citing Ethicon, 135 F.3d at 1461, 45 U.S.P.Q.2d (BNA) at 1548).
1561. Id. at 1295–96, 86 U.S.P.Q.2d (BNA) at 1459.
1562. Id. at 1296, 86 U.S.P.Q.2d (BNA) at 1459.
1563. Id. at 1294, 86 U.S.P.Q.2d (BNA) at 1458.
alleged infringer. Once the patentee makes such a showing, the burden shifts back to the alleged infringer to prove the elements of laches by a preponderance of the evidence. The Federal Circuit reviews the district court’s determination on laches for an abuse of discretion.

In Serdarevic v. Advanced Medical Optics, Inc., the Federal Circuit affirmed the district court’s grant of summary judgment that the plaintiff’s inventorship claim was barred by laches. The plaintiff filed an action asserting inventorship eight years after learning of the existence of the patents, thereby giving rise to a presumption of laches. The plaintiff contended that laches should not bar her claim because her suit was filed within six years of the issuance of the reexamination certificate for one of the patents. The Federal Circuit held that this “other litigation” excuse for the delay in filing suit did not prevent the application of the presumption of laches because the plaintiff was not engaged in the “other litigation,” which may have excused her delay. In addition, the plaintiff did not identify any way in which the reexamination proceeding changed her inventorship claim.

The plaintiff attempted to rebut the laches presumption by justifying the delay in filing suit. In particular, the plaintiff claimed that she was unfamiliar with the U.S. patent system. The Federal Circuit affirmed the district court’s finding that the plaintiff’s unfamiliarity with the U.S. patent system was not sufficient evidence to rebut the presumption of an unreasonable delay because she was represented by patent counsel who could have enabled her to file suit.

Finally, the plaintiff’s attempt to preclude the application of laches through an unclean hands claim also failed. The plaintiff was unable

1567. Aukerman, 960 F.2d at 1035, 22 U.S.P.Q.2d (BNA) at 1331–33.
1568. Id. at 1039, 22 U.S.P.Q.2d (BNA) at 1333.
1570. Id. at 1356, 87 U.S.P.Q.2d (BNA) at 1482.
1571. Id. at 1358, 87 U.S.P.Q.2d (BNA) at 1484.
1572. Id., 87 U.S.P.Q.2d (BNA) at 1484.
1573. Id. at 1359, 87 U.S.P.Q.2d (BNA) at 1485.
1574. Id., 87 U.S.P.Q.2d (BNA) at 1485.
1575. Id. at 1360, 87 U.S.P.Q.2d (BNA) at 1485.
to show that the defendant had engaged in “particularly egregious conduct” and was responsible for plaintiff’s delay in bringing suit.\textsuperscript{1578}

In Symantec, the Federal Circuit held that the district court did not err in dismissing a laches defense.\textsuperscript{1579} The court reasoned that—even if the plaintiff knew about an earlier product that was later rebranded to be the infringing product—there was no evidence that the earlier product was the same or similar to the product in suit, and “laches would only apply if the products were the same or similar.”\textsuperscript{1580} The Federal Circuit also held that the plaintiff’s earlier warning letter alleging willful infringement by the earlier product, which was sent before the defendant rebranded the earlier product, did not necessarily assume or concede that the two products were similar for purposes of the laches period of delay.\textsuperscript{1581}

\section*{VII. Non-Patent Issues}

\subsection*{A. Alternate Sources of Liability}

In In re Ciprofloxacin Hydrochloride Antitrust Litigation,\textsuperscript{1582} the Federal Circuit held that the district court did not err in concluding that settlement agreements between the patent holders, brand-name manufacturers of the drug, and generic manufacturers to resolve Hatch-Waxman Act cases did not violate section 1 of the Sherman Act,\textsuperscript{1583} which prohibits “unreasonable restraints” of trade.\textsuperscript{1584} In the settlement agreements, the patent holder agreed to make payments to the generic manufacturers (“reverse payments”), who in turn agreed not to challenge the validity of the patent or to market a generic version of the drug containing the patented compound until after the patent expired.\textsuperscript{1585} The Federal Circuit concluded that the district court properly applied a “rule of reason analysis”\textsuperscript{1586} to

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\item[1578.] Id. at 1361, 87 U.S.P.Q.2d (BNA) at 1486–87 (citation omitted).
\item[1580.] Id., 86 U.S.P.Q.2d (BNA) at 1458–59 (citing Watkins v. Nw. Ohio Tractor Pullers Assoc., Inc., 630 F.2d 1155, 1164, 208 U.S.P.Q. (BNA) 545, 552–53 (6th Cir. 1980)).
\item[1581.] Id., 86 U.S.P.Q.2d (BNA) at 1458–59.
\item[1582.] 544 F.3d 1323, 88 U.S.P.Q.2d (BNA) 1801 (Fed. Cir. 2008).
\item[1583.] Id. at 1333, 88 U.S.P.Q.2d (BNA) at 1808.
\item[1584.] Id. at 1331, 88 U.S.P.Q.2d (BNA) at 1807 (quoting State Oil Co. v. Khan, 522 U.S. 3, 10 (1997)).
\item[1585.] Id. at 1329–29, 88 U.S.P.Q.2d (BNA) at 1804.
\item[1586.] Id. at 1332, 88 U.S.P.Q.2d (BNA) at 1807. The “rule of reason” analysis is a three-step process. First, the plaintiff must show that the “challenged action had an actual adverse effect on competition as a whole in the relevant market.” The burden then “shifts to the defendant to establish the pro-competitive redeeming virtues of the action.” Finally, if defendant carries its burden, the plaintiff must “show that the
determine whether the settlement agreements were unlawful and properly found that plaintiffs had failed to show that the “[a]greements had an anti-competitive effect on the market... beyond that permitted by the patent.”

The Federal Circuit observed that long-standing judicial policy favors settlement. A settlement that protects a patent holder’s legal right to a monopoly over the manufacture and distribution of the patented invention is not unlawful, even though it may have some adverse effects on competition.

The Federal Circuit emphasized that the “essence of the inquiry is whether the agreements restrict competition beyond the exclusionary zone of the patent.” The court thus agreed with the United States Courts of Appeals for the Second and Eleventh Circuits that, in the absence of sham litigation or fraud before the PTO, the court “need not consider the validity of the patent in the antitrust analysis of a settlement agreement involving a reverse payment.”

In Dominant Semiconductors SDN. BHD. v. Osram GMBH, the Federal Circuit affirmed the district court’s grant of summary judgment dismissing the alleged infringer plaintiff’s claims for unfair competition, intentional interference with contractual relations, interference with prospective economic advantage, and trade libel. The bases for plaintiff’s claims were its contentions that the defendant made false and misleading public infringement allegations about the plaintiff’s products and that the defendant filed its patent infringement complaint before the ITC in bad faith. A plaintiff seeking to prove bad faith must prove that the allegations were objectively baseless, such that “no reasonable litigant could reasonably expect success on the merits.” “A[ ]n objectively reasonable effort to litigate cannot be sham regardless of subjective

same pro-competitive effect could be achieved through an alternative means... less restrictive of competition.” Id., 88 U.S.P.Q.2d (BNA) at 1807 (quoting Clorox Co. v. Sterling Winthrop, Inc., 117 F.3d 50, 56, 43 U.S.P.Q.2d (BNA) 1161, 1165 (2d Cir. 1997)).

1587. Id., 88 U.S.P.Q.2d (BNA) at 1807 (citation omitted).
1589. Id. at 1337, 88 U.S.P.Q.2d (BNA) at 1811 (citing In re Tamoxifen Citrate Antitrust Litig., 466 F.3d 187, 208 (2d Cir. 2006)).
1590. Id. at 1336, 88 U.S.P.Q.2d (BNA) at 1810.
1591. Id., 88 U.S.P.Q.2d (BNA) at 1810.
1593. Id. at 1255–56, 86 U.S.P.Q.2d (BNA) at 1481.
1594. Id. at 1258, 86 U.S.P.Q.2d (BNA) at 1483.
1595. Id. at 1260, 86 U.S.P.Q.2d (BNA) at 1485 (quoting GP Indus., Inc. v. Eran Indus., Inc., 500 F.3d 1369, 1374, 84 U.S.P.Q.2d (BNA) 1604, 1607 (Fed. Cir. 2007)).
The Federal Circuit further suggested that “a successful outcome of the underlying litigation refutes a conclusion that the litigation was objectively baseless at the outset.” The defendant’s evidence of success in its patent infringement claims before the ITC thus provided sufficient proof that its infringement claims were not objectively baseless.

B. Discovery Decisions

“Under the Federal Rules of Civil Procedure, the parties must be afforded adequate time for general discovery before being required to respond to a motion for summary judgment.” A showing of necessity and diligence otherwise required for a Rule 56(f) request for additional discovery does not apply when parties do not initially have adequate opportunity for discovery. In Metropolitan Life Insurance Co. v. Bancorp Services, L.L.C., the Federal Circuit held that the district court erred in denying the patentee’s Rule 56(f) motion seeking additional discovery. The district court erroneously reasoned that the patentee had not proven that the defendant’s deponents would testify contrary to their declarations if deposed. However, the appropriate fact to consider was that the patentee had not been afforded a reasonable opportunity to conduct discovery. Where, as in this case, there has not been an adequate initial opportunity for discovery, a Rule 56(f) request for additional discovery need not be accompanied by a strict showing of necessity and diligence. The Federal Circuit remanded to permit reasonable discovery by the patentee to proceed.

1596. Id. at 1261, 86 U.S.P.Q.2d (BNA) at 1485 (quoting Prof’l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc., 508 U.S. 49, 57, 26 U.S.P.Q.2d (BNA) 1641, 1645 (1993)).
1598. Id. at 1263, 86 U.S.P.Q.2d (BNA) at 1487.
1600. Id. at 1337, 87 U.S.P.Q.2d (BNA) at 1144 (citing Iverson, 172 F.3d at 530).
1601. 527 F.3d 1330, 87 U.S.P.Q.2d (BNA) 1140 (Fed. Cir. 2008).
1602. Id. at 1332, 87 U.S.P.Q.2d (BNA) at 1141.
1603. Id. at 1337, 87 U.S.P.Q.2d (BNA) at 1145.
1604. Id. at 1337–38, 87 U.S.P.Q.2d (BNA) at 1145.
1605. Id. at 1337, 87 U.S.P.Q.2d (BNA) at 1145 (citing Exigent Tech., Inc. v. Atrana Solutions, Inc., 442 F.3d 1301, 1311, 78 U.S.P.Q.2d (BNA) 1321, 1327–28 (Fed. Cir. 2006)).
1606. Id. at 1338, 87 U.S.P.Q.2d (BNA) at 1146.
C. Motions to Transfer

On petition for a writ of mandamus in In re TS Tech USA Corp., the Federal Circuit ordered the district court to transfer venue of a patent infringement case filed in the United States District Court for the Eastern District of Texas to the United States District Court for the Southern District of Ohio. In September 2007, plaintiff Lear Corporation filed suit against TS Tech in the Eastern District of Texas for infringement of a patent relating to pivotally attached vehicle headrest assemblies. Lear’s complaint alleged that TS Tech had been making and selling infringing headrest assemblies to Honda, and that TS Tech induced Honda to infringe the patent by incorporating the headrest assemblies into Honda vehicles, which are sold throughout the United States, including in the Eastern District of Texas.

In December 2007, TS Tech filed a motion to transfer venue for convenience to the Southern District of Ohio, under 28 U.S.C. § 1404(a). In support of transfer, TS Tech argued that the physical and documentary evidence was mainly located in Ohio and the key witnesses all lived in Ohio, Michigan, and Canada, and that none of the parties were either incorporated in Texas or had any offices in the Eastern District of Texas. Lear opposed, arguing that the Eastern District of Texas was the proper venue because several Honda vehicles containing the allegedly infringing headrest assemblies had been sold in Texas. In September 2008, the district court denied transfer, finding that TS Tech failed to demonstrate that the inconvenience to the parties and witnesses clearly outweighed the deference entitled to Lear’s choice of forum, and that because several Honda vehicles containing the allegedly infringing headrests had been sold in the venue, the Eastern District of Texas had a “substantial interest” in adjudicating the case.

TS Tech petitioned the Federal Circuit for a writ of mandamus ordering the district court to transfer the case. Relying on the Fifth Circuit’s recent en banc decision granting a similar petition for a writ of mandamus in In re Volkswagen of America, Inc., the Federal Circuit

1608. Id. at 1318, 89 U.S.P.Q.2d (BNA) at 1568.
1609. Id., 89 U.S.P.Q.2d (BNA) at 1568.
1610. Id., 89 U.S.P.Q.2d (BNA) at 1568.
1611. Id., 89 U.S.P.Q.2d (BNA) at 1568.
1612. Id., 89 U.S.P.Q.2d (BNA) at 1568.
1613. Id., 89 U.S.P.Q.2d (BNA) at 1568.
1614. Id., 89 U.S.P.Q.2d (BNA) at 1568.
1615. 545 F.3d 304, 89 U.S.P.Q.2d (BNA) 1501 (5th Cir. 2008) (en banc).
Circuit granted TS Tech’s petition, finding that under the circumstances, the district court’s decision not to transfer was a “clear abuse of discretion” that produced a “patently erroneous result” and therefore justified the extraordinary writ.\textsuperscript{1616}

The Federal Circuit confirmed that regional circuit law governs whether a motion to transfer a patent infringement case under § 1404(a) should be granted, and that under Fifth Circuit law, a motion to transfer venue should be granted upon a showing that the transferee venue is “clearly more convenient” than the venue chosen by the plaintiffs.\textsuperscript{1617} From Volkswagen, the court identified both “public” and “private” factors, taken from forum non conveniens law, to consider when ruling on a motion to transfer under § 1404(a).\textsuperscript{1618}

Applying those factors, the Federal Circuit held that the district court applied some of the relevant factors correctly, but that overall the analysis “contained several key errors.”\textsuperscript{1619} The district court’s first error was to give too much weight to Lear’s choice of forum.\textsuperscript{1620} As the Fifth Circuit had explained in Volkswagen, “the plaintiff’s choice of venue corresponds to the burden that a moving party must meet in order to demonstrate that the transferee venue is a clearly more convenient venue,” but it is not a separate factor to be considered in favor of the plaintiff on a motion for transfer.\textsuperscript{1621}

The district court’s second error, according to the Federal Circuit, was that it “ignored Fifth Circuit precedent in assessing the cost of attendance for witnesses.”\textsuperscript{1622} The Fifth Circuit has adopted a “100-mile” rule “which requires that ‘[w]hen the distance between an existing venue for trial of a matter and a proposed venue under § 1404(a) is more than 100 miles, the factor of inconvenience to witnesses increases in direct relationship to the additional distance to

\begin{itemize}
  \item \textsuperscript{1616} In re TS Tech, 551 F.3d at 1319, 1322, 89 U.S.P.Q.2d (BNA) at 1569, 1570 (recounting the high burden that must be met for the granting of a writ of mandamus and finding that the petitioner had met that standard).
  \item \textsuperscript{1617} Id., at 1319, 89 U.S.P.Q.2d (BNA) at 1568.
  \item \textsuperscript{1618} Id., 89 U.S.P.Q.2d (BNA) at 1568-69. “The ‘private’ interest factors include: (1) the relative ease of access to sources of proof; (2) the availability of compulsory process to secure the attendance of witnesses; (3) the cost of attendance for willing witnesses; and (4) all other practical problems that make a trial easy, expeditious, and inexpensive.” Id., 89 U.S.P.Q.2d (BNA) at 1569 (citing Piper Aircraft Co. v. Reyno, 454 U.S. 235, 241 n.6 (1981)). “The ‘public’ interest factors to be considered are (1) the administrative difficulties flowing from court congestion; (2) the local interest in having localized interests decided at home; (3) the familiarity of the forum with the law that will govern the case; and (4) the avoidance of unnecessary problems of conflicts of laws [or in] the application of foreign law.” Id., 89 U.S.P.Q.2d (BNA) at 1569 (quoting Volkswagen, 545 F.3d at 315).
  \item \textsuperscript{1619} Id., at 1320, 89 U.S.P.Q.2d (BNA) at 1569.
  \item \textsuperscript{1620} Id., 89 U.S.P.Q.2d (BNA) at 1569.
  \item \textsuperscript{1621} Id., 89 U.S.P.Q.2d (BNA) at 1569.
  \item \textsuperscript{1622} Id., 89 U.S.P.Q.2d (BNA) at 1569.
\end{itemize}
be traveled.\textsuperscript{1623} The Federal Circuit noted that witnesses would need to travel approximately 900 more miles to attend trial in the Eastern District of Texas than to do so in the Southern District of Ohio.\textsuperscript{1624}

The third error identified by the Federal Circuit was the district court’s determination that the “relative ease to access of sources of proof” factor was neutral because “many of the documents were stored electronically.”\textsuperscript{1625} Again following the Fifth Circuit’s Volkswagen opinion, the Federal Circuit concluded that because all of the physical evidence, including the headrests and the documentary evidence, were far more convenient to the Southern District of Ohio, the district court’s conclusion that this factor was neutral was error.\textsuperscript{1626}

Finally, the Federal Circuit identified the district court’s determination that the Eastern District of Texas had a “substantial interest” in having the case heard locally as a fourth error in the court’s analysis.\textsuperscript{1627} Based on the facts presented, the Federal Circuit concluded that “there is no relevant connection between the actions giving rise to this case and the Eastern District of Texas . . . [T]he vehicles containing TS Tech’s allegedly infringing headrest assemblies were sold throughout the United States and thus the citizens of the Eastern District of Texas have no more or less of a meaningful connection to this case than any other venue.”\textsuperscript{1628} The Federal Circuit therefore concluded that “[b]ecause the district court’s errors here are essentially identical [to the errors identified by the Fifth Circuit in Volkswagen], we hold that TS Tech has demonstrated a clear and indisputable right to a writ.”\textsuperscript{1629}

In addition, the Federal Circuit clarified that TS Tech was not required to seek reconsideration of the district court’s denial of its transfer motion before seeking a writ of mandamus because TS Tech has no reasonable expectation that the district court would reverse its prior ruling and because interlocutory review of a denial of a motion to transfer is unavailable under 28 U.S.C. § 1292(b).\textsuperscript{1630}

\textsuperscript{1623} Id., 89 U.S.P.Q.2d (BNA) at 1569 (quoting In re Volkswagen AG, 371 F.3d 201, 204-05 (5th Cir. 2004)).
\textsuperscript{1624} Id., 89 U.S.P.Q.2d (BNA) at 1569.
\textsuperscript{1625} Id. at 1320-21, 89 U.S.P.Q.2d (BNA) at 1570.
\textsuperscript{1626} Id. at 1321, 89 U.S.P.Q.2d (BNA) at 1570.
\textsuperscript{1627} Id., 89 U.S.P.Q.2d (BNA) at 1570.
\textsuperscript{1628} Id. 89 U.S.P.Q.2d (BNA) at 1570.
\textsuperscript{1629} Id. at 1322, 89 U.S.P.Q.2d (BNA) at 1570.
\textsuperscript{1630} Id., 89 U.S.P.Q.2d (BNA) at 1571.
VIII. Remedies

A. Permanent Injunction

In the 2006 eBay Inc. v. MercExchange L.L.C. decision, the Supreme Court confirmed that a patentee-plaintiff must satisfy the following four-factor test before a court may grant a permanent injunction:

(1) that [the plaintiff] has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.\[1632\]

The Federal Circuit continued to refine the application of eBay to different factual circumstances in 2008. In Innogenetics, N.V. v. Abbott Laboratories, Innogenetics brought an action against Abbott for infringement of its patent relating to diagnostic tools that detected and classified hepatitis C virus genotypes which facilitated customizing treatments of patients with varying genotypes. At the infringement trial, Innogenetics’ damages expert proposed an upfront “market entry fee” payment of $5.8 million and a running royalty of five to ten euros per test on the 190,000 tests Abbott had sold up to that point. At the conclusion of the evidence, the jury trial found in favor of Innogenetics, and the court entered judgment of infringement and reasonable royalties in the amount of $7 million.

Innogenetics moved for a permanent injunction. In granting Innogenetics a permanent injunction in addition to the $7 million damages award, the district court stated, “[i]t would denigrate the value of plaintiff’s patent rights to allow defendant to continue to sell plaintiff’s invention as its own in exchange for the same fee it would have paid without the lawsuit.”

On appeal, the Federal Circuit vacated the district court’s grant of a permanent injunction prohibiting the future sales of Abbott’s

\[1633\] 512 F.3d 1363, 85 U.S.P.Q.2d (BNA) 1641 (Fed. Cir. 2008).
\[1634\] Id. at 1368, 85 U.S.P.Q.2d (BNA) at 1644.
\[1635\] Id. at 1380, 85 U.S.P.Q.2d (BNA) at 1653.
\[1636\] Id., 87 U.S.P.Q.2d (BNA) at 1653.
\[1637\] Id. at 1369, 87 U.S.P.Q.2d (BNA) at 1645.
\[1638\] Id. at 1380 n.8, 87 U.S.P.Q.2d (BNA) at 1654 n.8.
genotyping assay kits, finding that the lower court's ruling was an abuse of discretion. Counsel for Innogenetics argued that the jury's damages calculation was a royalty for Abbott's past infringement only.1639

The Federal Circuit rejected this argument, finding on review of the trial record that, during the damages portion of the trial, Innogenetics' damages expert factored in the cost of a license that would allow Abbott to continue selling the infringing product—and concluded that the jury's award “include[d] both an up-front payment and an ongoing royalty payment.” 1640 The court held that “[w]hen a patentee requests and receives such compensation, it cannot be heard to complain that it will be irreparably harmed by future sales” and that “this factor greatly outweighs the other eBay factors in this case.” 1641 The court also noted that “[i]njunctive relief ought not to act as a form of ‘extra damages’ to compensate for litigation costs” and that “[i]f litigation costs were a factor, injunctive relief would be warranted in every litigated patent case.” 1642 The Federal Circuit remanded the case to the district court to “delineate the terms of the compulsory license.” 1643

In Amado v. Microsoft Corp., 1644 plaintiff Amado filed a suit against Microsoft for infringement of his patent relating to a software program that combines the functionalities of spreadsheet and database software. 1645 Following a 2005 jury verdict that Amado's patent was valid and infringed, the district court granted Amado's motion for a permanent injunction but stayed the injunction until “[s]even days after the resolution or abandonment of any appeal.” 1646 The district court rejected Amado's motion to enforce the stay seven days after the mandate issued and, instead, interpreted the term “appeal” to include a petition for certiorari. 1647 The district court granted Microsoft's request for an extension of the stay following the Supreme Court's denial of certiorari. 1648 Microsoft then moved for permanent dissolution of the permanent injunction, arguing that the "Supreme Court's recent decision in eBay made the grant of

1639. Id. at 1380, 87 U.S.P.Q.2d (BNA) at 1653.
1640. Id. at 1380, 85 U.S.P.Q.2d (BNA) at 1653.
1641. Id., 85 U.S.P.Q.2d (BNA) at 1653.
1642. Id. at 1380 n.8, 86 U.S.P.Q.2d (BNA) at 1654 (citations omitted).
1643. Id. at 1381, 85 U.S.P.Q.2d (BNA) at 1654.
1645. Id. at 1356, 86 U.S.P.Q.2d (BNA) at 1092.
1646. Id., 86 U.S.P.Q.2d (BNA) at 1092.
1647. Id. at 1357, 86 U.S.P.Q.2d (BNA) at 1093.
1648. Id., 86 U.S.P.Q.2d (BNA) at 1093.
injunction inappropriate.\textsuperscript{1649} After applying the four-factor test for injunctive relief, the district court found “both an absence of irreparable harm and that the public interest would be disserved by granting an injunction,” and therefore dissolved the permanent injunction.\textsuperscript{1650}

Amado appealed, arguing that the “mandate rule foreclosed Microsoft from challenging the injunction or the district court from modifying it.”\textsuperscript{1651} Although it agreed that the mandate rule would have foreclosed Microsoft from challenging the initial entry of the permanent injunction, the Federal Circuit rejected Amado’s argument that the district court abused its discretion when it modified the stay of the injunction once it was incorporated into the mandate from the Federal Circuit’s 2006 order.\textsuperscript{1652} The court noted that “district courts possess broad equitable authority to modify injunctions” and concluded that there was no abuse of discretion when the district court reconsidered the permanent injunction in light of eBay and, ultimately, decided to dissolve the injunction when it determined that it was “no longer equitable under the circumstances.”\textsuperscript{1653} The court also noted that it did not reach the argument of “whether there remains a rebuttable presumption of irreparable harm following a judgment of validity and infringement following eBay” because the district court in this case was “within its discretion to find an absence of irreparable harm based on the evidence presented at trial.”\textsuperscript{1654}

In Voda v. Cordis Corp.,\textsuperscript{1655} plaintiff Voda alleged that Cordis had infringed three of its patents relating to catheter designs for interventional cardiology.\textsuperscript{1656} After the district court found that Voda’s patents were not invalid and were infringed, Voda moved for a permanent injunction.\textsuperscript{1657} Rather than attempting to prove irreparable injury to himself, Voda attempted to show the effect Cordis’s infringement had on its exclusive licensee of the patents-in-suit.\textsuperscript{1658} The district court denied Voda’s motion for a permanent injunction, finding that Voda had failed to demonstrate irreparable

\textsuperscript{1649} Id. at 1359, 86 U.S.P.Q.2d (BNA) at 1094.
\textsuperscript{1650} Id., 86 U.S.P.Q.2d (BNA) at 1095.
\textsuperscript{1651} Id., 86 U.S.P.Q.2d (BNA) at 1095.
\textsuperscript{1652} Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1094. The Federal Circuit’s 2006 order affirming the district court’s final judgment, Amado v. Microsoft Corp., 185 F. App’x 953 (Fed. Cir. 2006) (per curiam), is also referred to as Amado I.
\textsuperscript{1653} Id. at 1358–61, 86 U.S.P.Q.2d (BNA) at 1094–96.
\textsuperscript{1654} Id. at 1359 n.1, 86 U.S.P.Q.2d (BNA) at 1095 n.1.
\textsuperscript{1655} 536 F.3d 1311, 87 U.S.P.Q.2d (BNA) 1742 (Fed. Cir. 2008).
\textsuperscript{1656} Id. at 1315, 87 U.S.P.Q.2d (BNA) at 1744–45.
\textsuperscript{1657} Id. at 1315, 87 U.S.P.Q.2d (BNA) at 1745.
\textsuperscript{1658} Id. at 1329, 87 U.S.P.Q.2d (BNA) at 1755–56.
injury and failed to show that monetary damages were inadequate to compensate for Cordis’s infringement.\textsuperscript{1659} Voda appealed the district court’s denial of the permanent injunction.\textsuperscript{1660} The Federal Circuit affirmed the denial of a permanent injunction, finding that Voda’s attempt to proof of injury to his exclusive licensee, rather than to himself, did not provide a basis for entry of a permanent injunction.\textsuperscript{1661} While affirming the denial of a permanent injunction of the facts of Voda, however, the court noted that “patent owners that license their patents rather than practice them may be able to satisfy the traditional four-factor test for a permanent injunction.”\textsuperscript{1662}

In Broadcom Corp. v. Qualcomm Inc.,\textsuperscript{1663} plaintiff Broadcom filed an action against Qualcomm for infringement of three of its patents relating to baseband chips designed to work in cell phones on 3G networks.\textsuperscript{1664} A jury found that Broadcom’s patents were infringed and not invalid, and awarded Broadcom damages.\textsuperscript{1665} Subsequently, the district court held a bench trial on the issue of injunctive relief.\textsuperscript{1666} In support of its motion for an injunction, Broadcom put forth evidence that it would be irreparably injured because it has a general policy not to license its patents and that monetary damages were insufficient because it would not have agreed to enter a licensing agreement with its direct competitor for strategic business reasons.\textsuperscript{1667}

At the conclusion of the bench trial, the district court entered a permanent injunction against Qualcomm on all patents.\textsuperscript{1668} The permanent injunction barred Qualcomm’s future sales of products using Broadcom’s patents but included a “sunset” provision that allowed “continued sales pursuant to a mandatory royalty through January 31, 2009.”\textsuperscript{1669} In its analysis of the eBay factors, the district court found that (1) Broadcom had demonstrated irreparable harm because, even though it did not practice the claimed inventions, the competition for “design wins” in the baseband marketplace could

\textsuperscript{1659} Id., 87 U.S.P.Q.2d (BNA) at 1755–56.
\textsuperscript{1660} Id. at 1315, 87 U.S.P.Q.2d (BNA) at 1745.
\textsuperscript{1661} Id. at 1329, 87 U.S.P.Q.2d (BNA) at 1756.
\textsuperscript{1662} Id., 87 U.S.P.Q.2d (BNA) at 1756 (quoting eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 393, 78 U.S.P.Q. (BNA) 1577, 1579 (2006)).
\textsuperscript{1663} 543 F.3d 683, 88 U.S.P.Q.2d (BNA) 1641 (Fed. Cir. 2008). For discussion of this case’s implications regarding indirect infringement, see supra notes 882–889 and accompanying text.
\textsuperscript{1664} Id. at 686, 88 U.S.P.Q.2d (BNA) at 1644.
\textsuperscript{1665} Id. at 687, 88 U.S.P.Q.2d (BNA) at 1644.
\textsuperscript{1666} Id., 88 U.S.P.Q.2d (BNA) at 1645.
\textsuperscript{1667} Id. at 702-04, 88 U.S.P.Q.2d (BNA) at 1656–58.
\textsuperscript{1668} Id. at 687, 88 U.S.P.Q.2d (BNA) at 1645.
\textsuperscript{1669} Id., 88 U.S.P.Q.2d (BNA) at 1645.
have a competitive effect on firms; the lack of adequate remedy at law weighed in favor of an injunction with respect to all of the infringed patents; the permanent injunction would harm Qualcomm, but held that “with a sunset provision which ameliorates the negative effects on Qualcomm, the balance of hardships favors Broadcom”; and an immediate permanent injunction would adversely affect the public, network carriers, and handset manufacturers, but that the sunset provisions “balance[] the policy of protecting the patentee’s rights against the desirability of avoiding immediate market disruptions.”

The Federal Circuit affirmed the grant of a permanent injunction, noting that the “district court provided a well-reasoned and comprehensive opinion addressing injunctive relief.” The court held that Broadcom demonstrated irreparable harm, “despite the fact that it does not currently practice the claimed inventions,” when it showed that Qualcomm competes indirectly with Broadcom in the baseband chip market. The court distinguished this ruling from a prior decision: whereas in Voda the alleged harm was to an “exclusive licensee,” in this case Broadcom did not “rely on harm to others, but rather allege[d] that its own commercial activities will be irreparably injured by Qualcomm’s infringing activity.”

Likewise, in Acumed LLC v. Stryker Corporation, the Federal Circuit affirmed a district court’s decision to grant an injunction despite the defendant’s arguments that the eBay factors did not warrant one. Acumed asserted a patent directed to a proximal humeral nail (“PHN”)—a type of orthopedic nail used for the treatment of fractures of the upper arm—against one of Stryker’s PHN products. In 2005, a jury found willful infringement and awarded damages, and in early 2006, the district court issued a permanent injunction.

While Stryker’s appeal was pending in 2006, however, the Supreme Court decided eBay, and the Federal Circuit, in addition to affirming the jury’s verdict and damages award, remanded the case to

1670. Id. at 702–03, 88 U.S.P.Q.2d (BNA) at 1656–57.
1671. Id. at 703–04, 88 U.S.P.Q.2d (BNA) at 1657–58.
1672. Id. at 704, 88 U.S.P.Q.2d (BNA) at 1658.
1673. Id., 88 U.S.P.Q.2d (BNA) at 1658 (alteration in original) (citations omitted).
1674. Id. at 702, 88 U.S.P.Q.2d (BNA) at 1656.
1675. Id. at 703, 88 U.S.P.Q.2d (BNA) at 1657.
1676. Id., 88 U.S.P.Q.2d (BNA) at 1657.
1678. Id. at 1326, 89 U.S.P.Q.2d (BNA) at 1613.
1679. Id., 89 U.S.P.Q.2d (BNA) at 1613.
the district court for reconsideration of the four-factor test for injunctive relief in light of eBay.\textsuperscript{1681}

On remand, defendant Stryker responded to Acumed’s motion for a permanent injunction by submitting an opposition memorandum supported by the declarations of five physicians attesting to their use of Stryker’s product, and stating that it was less prone to nail “back-out” than Acumed’s competing product.\textsuperscript{1682} Stryker also argued that Acumed’s prior licensing of the asserted patent barred a finding of irreparable injury.\textsuperscript{1683}

The district court rejected Stryker’s arguments and again issued a permanent injunction.\textsuperscript{1684} On appeal, the Federal Circuit concluded that the district court’s findings and determination were not an abuse of discretion. First, the Federal Circuit rejected Stryker’s argument that Acumed’s prior licensing of the asserted patent precluded findings of irreparable injury and no adequate remedy at law: “While the fact that a patentee has previously chosen to license the patent may indicate that a reasonable royalty does compensate for an infringement, that is but one factor for the district court to consider.”\textsuperscript{1685} The court confirmed the district court’s analysis that the addition of Stryker as a licensee could still cause Acumed irreparable harm, stating that:

\begin{quote}
[a]dding a new competitor to the market may create an irreparable harm that the prior licenses did not. In this case, the fact that Acumed licensed the [asserted] patent under two particular sets of circumstances does not mean that the district court abused its discretion in not holding that Acumed must now grant a further license to Stryker and receive only a royalty as compensation.\textsuperscript{1686}
\end{quote}

Second, the court rejected Stryker’s arguments that the balance of hardships counseled against an injunction because the evidence showed an injunction would cause a hardship for Stryker’s customers and patients and because Stryker had made significant expenditures in designing and manufacturing its infringing product.\textsuperscript{1687} “As a preliminary matter, the balance of hardship is only between a plaintiff and a defendant, and thus the effect on customers and patients alleged by Stryker is irrelevant under this prong of the

\textsuperscript{1681} Acumed LLC v. Stryker Corp., 483 F.3d 800, 811, 82 U.S.P.Q.2d (BNA) 1481, 1489 (Fed. Cir. 2007).
\textsuperscript{1682} Id., 89 U.S.P.Q.2d (BNA) at 1613, 1617.
\textsuperscript{1683} Id. at 1328, 89 U.S.P.Q.2d (BNA) at 1614-1615.
\textsuperscript{1684} Id., 89 U.S.P.Q.2d (BNA) at 1614-1615.
\textsuperscript{1685} Id. at 1328, 89 U.S.P.Q.2d (BNA) at 1614.
\textsuperscript{1686} Id. at 1329, 89 U.S.P.Q.2d (BNA) at 1615.
\textsuperscript{1687} Id. at 1329-30, 89 U.S.P.Q.2d (BNA) at 1615-1616.
injunction test.” The court also stated, “We also see no abuse of discretion in the court’s decision not to consider Stryker’s expenses in designing and marketing the [accused product], since those are expenses related to an infringing product.”

Finally, the Federal Circuit confirmed that the district court had not abused its discretion when it concluded that the public interest did not preclude an injunction. The court concluded that the district court’s findings that there was “considerable dispute” at trial about whether Stryker’s evidence of a public health issue regarding screw back-out with Acumed’s competing product was the product of “biased experts,” and that Stryker had not proven that there was any public health problem with Acumed’s product were not an abuse of discretion.

However, while affirming the district court’s ruling, the Federal Circuit expressed that this presented a close case. The court specifically indicated that its affirmane took into account that its review was under the abuse of discretion standard:

Ultimately, this was a close case, especially with regard to the irreparable harm and lack of adequate remedy at law prongs of the four-factor test, in view of past licenses having been granted, and the public interest prong, in light of testimony that the accused product was a medically superior one. Nonetheless, the standard of review, viz., abuse of discretion, compels our decision to affirm the district court.

B. Preliminary Injunction

A preliminary injunction is entered before trial to protect a party’s rights while an infringement trial is pending. Preliminary injunctions require an examination of the following four factors: (1) likelihood of success on the merits, (2) harm to the moving party if the injunction is not granted, (3) the balance of hardships, and (4) the impact of the injunction on the public interest.

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1688. Id. at 1330, 89 U.S.P.Q.2d (BNA) at 1616 (citing eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391, 78 U.S.P.Q.2d (BNA) 1577, 1578 (2006)).
1689. Id. at 1330, 89 U.S.P.Q.2d (BNA) at 1616 (citing Windsurfing Int’l, Inc. v. AMF, Inc., 782 F.2d 995, 1003 n.12, 228 U.S.P.Q. (BNA) 562, 567 (Fed. Cir. 1986)).
1690. Id. at 1330-31, 89 U.S.P.Q.2d (BNA) at 1616-1617.
1691. Id., 89 U.S.P.Q.2d (BNA) at 1616-1617.
1692. Id. at 1332, 89 U.S.P.Q.2d (BNA) at 1617.
1693. Id., 89 U.S.P.Q.2d (BNA) at 1617.
1694. See Nutrition 21 v. United States, 930 F.2d 867, 869, 18 U.S.P.Q.2d (BNA) 1347, 1348-49 (Fed. Cir. 1991) (“Whether a preliminary injunction should issue turns upon four factors: (1) the probability that the movant will succeed on the merits; (2) the threat of irreparable harm to the movant should a preliminary injunction be denied; (3) the balance between this harm and the harm that granting
In Abbott Laboratories v. Sandoz, Inc., plaintiff Abbott brought an infringement action against Sandoz for infringement of its patents involving its extended release formulations of one of its brand name antibiotic drugs. In granting Abbott a preliminary injunction against Sandoz, the district court found that (1) Abbott had demonstrated a reasonable likelihood of proving infringement of its patents; (2) Abbott would suffer irreparable harm despite the existence of generic producers already in this market because the generic producers “do not negate the market share and revenue loss upon Sandoz’s entry while the litigation proceeds”; (3) the balance of hardships weighed in favor of Abbott because “Abbott will lose much more if this Court did not enjoin Sandoz’s infringing conduct than if the Court enjoins Sandoz and it is subsequently found that the ‘718 patent is invalid or unenforceable”; and (4) while the public interest may be served by the availability of less expensive forms of successful medicines, the court also recognized “the public interest in creating beneficial and useful products and the cost involved in that process” and, thus, enforcing the Abbott Laboratories patent would also serve the public interest.

On appeal, Sandoz argued that the district court had abused its discretion by granting the preliminary injunction because Sandoz had raised a “substantial question” as to the validity of the patent at issue as well as Abbott’s “inequitable conduct” in obtaining the patents.

Affirming the grant of preliminary injunction, a panel majority of the Federal Circuit found that the district court had not abused its discretion in granting a preliminary injunction against Sandoz.

The correct standard is not whether a substantial question has been raised, but whether the patentee is likely to succeed on the merits, upon application of the standards of proof that will prevail at trial. The question is not whether the patent is vulnerable; the
question is who is likely to prevail in the end, considered with equitable factors that relate to whether the status quo should or should not be preserved while the trial is ongoing. The presentation of sufficient evidence to show the likelihood of prevailing on the merits is quite different from the presentation of substantial evidence to show vulnerability.\textsuperscript{1703}

The majority opinion also provided an overview of the law granting preliminary injunction to address the issues raised by Judge Gajarsa's dissent.\textsuperscript{1704} Writing for the majority, Judge Newman noted that “[n]o circuit has held that it suffices to raise a ‘substantial question’” as to whether or not a defendant is likely to prevail on the merits.\textsuperscript{1705} The court went on to hold that “[r]aising a substantial question may avoid dismissal on the pleadings, but contrary to the view of the dissent, establishing that there is an issue for trial is not the same as establishing the likelihood of prevailing at trial.”\textsuperscript{1706}

In his dissent, Judge Gajarsa found that there was “no legal basis for the granting of the preliminary injunction and its issuance is an abuse of discretion.”\textsuperscript{1707} Judge Gajarsa focused on the preliminary injunction factor of “a reasonable likelihood of success on the merits” and argued that there were “substantial questions of both validity and enforceability of the ’718 patent preventing a finding of likelihood of success on the merits.”\textsuperscript{1708} The dissent found that the district court erred when it failed to “properly consider and weigh the ample evidence produced by Sandoz that clearly established a substantial question of invalidity and rendered the patent vulnerable to an invalidity challenge at trial.”\textsuperscript{1709} Furthermore, the dissent argued that the district court had abused its discretion by finding the “concededly false statement” made by Abbott to be immaterial and thus failing to find a substantial question of inequitable conduct on Abbott’s part.\textsuperscript{1710}

In Judkins v. HT Window Fashion Corp.,\textsuperscript{1711} the Federal Circuit affirmed the district court’s denial of a motion for preliminary injunction based on a Lanham Act counterclaim.\textsuperscript{1712} The patents at issue in Judkins involved a process for manufacturing window coverings.\textsuperscript{1713} On HT’s motion for a preliminary injunction, HT

\textsuperscript{1703} Id. at 1364, 89 U.S.P.Q.2d (BNA) at 1180–81.
\textsuperscript{1704} Id. at 1363–68, 89 U.S.P.Q.2d (BNA) at 1180–84.
\textsuperscript{1705} Id. at 1368, 89 U.S.P.Q.2d (BNA) at 1184.
\textsuperscript{1706} Id. at 1369, 89 U.S.P.Q.2d (BNA) at 1184.
\textsuperscript{1707} Id. at 1371, 89 U.S.P.Q.2d (BNA) at 1186.
\textsuperscript{1708} Id. at 1381, 89 U.S.P.Q.2d (BNA) at 1194.
\textsuperscript{1709} Id. at 1372, 89 U.S.P.Q.2d (BNA) at 1187.
\textsuperscript{1710} Id. at 1379–81, 89 U.S.P.Q.2d (BNA) at 1193.
\textsuperscript{1711} 529 F.3d 1334, 86 U.S.P.Q.2d (BNA) 1352 (Fed. Cir. 2008).
\textsuperscript{1712} Id. at 1336, 86 U.S.P.Q.2d (BNA) at 1354.
\textsuperscript{1713} Id., 86 U.S.P.Q.2d (BNA) at 1354.
alleged that Judkins had “violated section 43(a) of the Lanham Act1714 by sending HT’s customers and potential customers letters stating that an HT product infringed its patents” and that Judkins had acted in bad faith because he knew that his patent was unenforceable.1715

The district court denied HT’s motion for preliminary injunction holding that “HT could not establish bad faith or overcome the presumption of the patent’s validity by clear and convincing evidence and therefore could not show the requisite likelihood of success on the merits.”1716

The Federal Circuit affirmed the district court’s denial of HT’s request for a preliminary injunction.1717 Plaintiff Judkins obtained his ‘120 patent for the process after the Board of Patent Appeals and Interferences granted priority for his patent application over a patent assigned to a competitor and soon filed a suit against HT for infringement of its ‘120 patent.1718 The court rejected HT’s argument that the district court had erred when it failed to find that an earlier settlement was collusive and thus indicative of bad faith on Judkins assertion of the ‘120 patent; instead, the court deferred to the court’s judgment and declined to make an assumption on the district court’s diligence.1719 The court also rejected HT’s arguments that the district court clearly erred by questioning the substance of the finding in an earlier litigation, applying a presumption of validity, and failing to use the “objective baselessness” standard of bad faith.1720

The Federal Circuit reversed the district court’s denial of a preliminary injunction in E.I. du Pont de Nemours & Co. v. MacDermid Printing Solutions, L.L.C.1721 The patents at issue in DuPont were directed to a process for preparing a flexographic printing plate from a photosensitive element for use in the process.1722 In opposition to DuPont’s motion for a preliminary injunction, defendant MacDermid argued that DuPont could not show a likelihood of success on the merits because DuPont’s patent “was invalid under Section 102(b) because the invention was on sale or in public use before the critical date . . . of February 27, 2001, or one year before the filing date of the

1715. Id., 86 U.S.P.Q. 2d (BNA) at 1354.
1716. Id. at 1337, 86 U.S.P.Q. 2d (BNA) at 1355.
1717. Id. at 1344–45, 86 U.S.P.Q. 2d (BNA) at 1361.
1718. Id. at 1337, 86 U.S.P.Q. 2d (BNA) at 1355.
1719. Id. at 1341, 86 U.S.P.Q. 2d (BNA) at 1358.
1720. Id. at 1341–42, 86 U.S.P.Q. 2d (BNA) at 1357–59.
1721. 525 F.3d 1353, 1354, 86 U.S.P.Q. 2d (BNA) 1732, 1734 (Fed. Cir. 2008) [hereinafter DuPont].
1722. Id. at 1354, 86 U.S.P.Q. 2d (BNA) at 1734.
The district court agreed and denied DuPont's motion for a preliminary injunction because DuPont had not shown that MacDermid's asserted invalidity defenses lacked substantial merit. On appeal of the preliminary injunction, the Federal Circuit found that the district court had abused its discretion in finding that a "substantial question" as to the validity of the patent existed because the "non-provisional application was entitled to the filing date of the provisional application as a matter of law." The court vacated and remanded the case for consideration because the district court had not reached "the parties' remaining arguments as to validity and enforceability as well as the remaining preliminary injunction factors."

In Proctor & Gamble Co. v. Kraft Foods Global, Inc., Proctor & Gamble ("P & G") filed an action against Kraft for infringement of its patent for a plastic container, intended to replace conventional metal cans for marketing and storing ground coffee, and moved for a preliminary injunction. While the motion for preliminary injunction was pending, the district court granted Kraft's motion to stay, effectively denying P & G's motion for preliminary injunction. P & G appealed. The Federal Circuit reversed, finding that the lower court had "abused its discretion by effectively denying P & G's motion for a preliminary injunction without considering and balancing the required factors." The Federal Circuit rejected the district court's refusal to hear P & G's arguments regarding likelihood of success without first construing the claims, as well as its refusal to consider arguments regarding irreparable harm and the balance of hardships on the basis that such arguments would only be considered if Kraft's motion for a stay were not granted. The court remanded the matter to the district court for a full evaluation of the preliminary injunction factors.

\[1723.\] Id. at 1355, 86 U.S.P.Q.2d (BNA) at 1735.
\[1724.\] Id. at 1357, 86 U.S.P.Q.2d (BNA) at 1736.
\[1725.\] Id. at 1358, 86 U.S.P.Q.2d (BNA) at 1737.
\[1726.\] Id. at 1354, 86 U.S.P.Q.2d (BNA) at 1734.
\[1728.\] Id. at *1, 89 U.S.P.Q.2d (BNA) at 1086.
\[1729.\] Id. at *1, 89 U.S.P.Q.2d (BNA) at 1086–87.
\[1730.\] Id. at *2, 89 U.S.P.Q.2d (BNA) at 1087.
\[1731.\] Id. at *4, 89 U.S.P.Q.2d (BNA) at 1088.
\[1732.\] Id., 89 U.S.P.Q.2d (BNA) at 1088–89.
\[1733.\] Id. at *6, 89 U.S.P.Q.2d (BNA) at 1090.
C. Damages

In TiVo, Inc. v. Echostar Communications Corp., plaintiff TiVo brought a suit against Echostar in the Eastern District of Texas for infringement of claims related to its patent on technology that enables television users to “time-shift” television signals thereby enabling users to digitally record and replay the program on the user’s television set. The district court entered judgment on the jury award of $73,991,964 in damages for TiVo ($32,663,906 in lost profits and $41,328,058 in reasonable royalties), and Echostar appealed. Even though it reversed the verdict of infringement as to two of the four claims on which the jury had found infringement, the Federal Circuit affirmed the damages awarded by the district court “[b]ecause the damages calculation at trial was not predicated on the infringement of particular claims, and because we have upheld the jury’s verdict that all of the accused devices infringe the software claims.” The Federal Circuit also noted that the district court’s injunction was stayed pending the appeal and, once the appeal becomes final, the district court can make a determination of additional damages that TiVo may have sustained while the stay of the permanent injunction has been in effect.

1. Lost profits

In order for a patent owner to recover lost profits as opposed to a reasonable royalty, the patent owner must “prove a causal relation between the infringement and its loss of profits. The patent owner must show that ‘but for’ the infringement, it would have made the infringer’s sales.”

In American Seating Co. v. USSC Group, Inc., American Seating filed an action against USSC alleging that two of USSC’s wheelchair tie-down devices, the VPRO I and the VPRO II, infringed its patent for a wheelchair restraint system for use in mass transit vehicles. The jury returned a verdict including an award of lost profits from convoyed sales of non-patented products to American Seating. The district court granted in part USSC’s motion for remittitur by setting

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1734. 516 F.3d 1290, 85 U.S.P.Q.2d (BNA) 1801 (Fed Cir. 2008).
1735. Id. at 1294, 85 U.S.P.Q.2d (BNA) at 1803.
1736. Id., 85 U.S.P.Q.2d (BNA) at 1804.
1737. Id. at 1312, 85 U.S.P.Q.2d (BNA) at 1817.
1741. Id. at 1265–66, 85 U.S.P.Q.2d (BNA) at 1684.
aside a portion of the verdict related to convoyed sales, because “the record evidence, viewed in the light most favorable to American Seating, was insufficient as a matter of law for the jury to find that the patented tie-down system and unpatented passenger seats were part of a single functional unit.” The district court reduced the original jury award of $2,326,129 in lost profits to $676,850. American Seating appealed the district court’s decision setting aside a portion of the jury’s verdict and USSC cross-appealed the district court’s confirmation of the “jury’s award of lost profit damages for sales of the non-infringing VPRo II.”

The Federal Circuit affirmed the trial court’s conclusions that American Seating failed as a matter of law to meet its burden of establishing a functional relationship between passenger seats and the patented restraint system, and the jury properly awarded damages for lost profits on USSC’s deliveries of the VPRo II predicated upon offers to sell the infringing VPRo I.

The court also noted that “[b]ecause it is clear that no interrelated or functional relationship inheres between the seats and the tie-down restraint system on a passenger bus, the district court was correct that the jury had no basis to conclude that lost profits on collateral sales of passenger seats were due American Seating.”

In Cohesive Technologies, Inc. v. Waters Corp., Cohesive Technologies brought three related actions accusing Waters of infringing its patents relating to high-performance liquid chromatography (“HLPC”), a process for separating, identifying, and measuring compounds contained in a liquid. Following a bench trial, the district court concluded that Cohesive was not entitled to lost profits as a result of infringement, because Waters had acceptable noninfringing substitutes. The Federal Circuit vacated the lower court’s ruling that Cohesive was not entitled to lost profits because it was “unclear whether the other product available, standing alone, would have been an acceptable substitute.” Specifically, the Federal Circuit did not understand what the district court meant in its differentiation between a “fully-acceptable substitute” and a
“reasonably acceptable substitute.” The court remanded for “reconsideration based upon its determination of (1) whether the 25 mm columns infringe under the correct claim construction; and (2) whether the 2.1 x 20 mm columns are acceptable noninfringing substitutes.”

2. Reasonable royalty

In Monsanto Co. v. David, Monsanto brought an infringement action against David, a commercial farmer, for infringement of its patents involving genes used in soybean seeds. Monsanto claimed that David had planted soybean seeds with the patented genes in 2003 that were improperly saved from the previous year’s harvest. The district court entered judgment against David for willfully infringing Monsanto’s patent and for breach of the technology agreement by planting saved seed from the prior year’s harvest and awarded Monsanto reasonable royalty damages of $226,214.40. David appealed the district court’s judgment.

The Federal Circuit upheld the district court’s reasonable royalty calculation of $55.04 per infringing seed unit but vacated the district court’s calculation of seed density of 107.5 pounds per acre. The Federal Circuit found it significant that there was confusion concerning the 120 pound per acre density estimate that David had offered during his trial testimony. Based on the transcript and David’s “extensive previous testimony,” which showed that David had never estimated planting the Monsanto seed at more than seventy-five pounds per acre, the Federal Circuit concluded that the 120 pound density figure that David referenced was for conventional seed, not seed utilizing Monsanto’s patented genes. While noting the district court’s “difficult task of determining the total soybean acreage planted by David in 2003 and the density of seed used in those fields” in order to assess the number of infringing seed units planted by David, the court nevertheless found that the district court’s determination was “clearly erroneous” because it had based its

1751. Id. at 1373, 88 U.S.P.Q.2d (BNA) at 1917.
1752. Id. at 1373–74, 88 U.S.P.Q.2d (BNA) at 1917–18.
1754. Id. at 1011–12, 85 U.S.P.Q.2d (BNA) at 1965–66.
1755. Id. at 1012, 85 U.S.P.Q.2d (BNA) at 1966.
1756. Id. at 1013, 85 U.S.P.Q.2d (BNA) at 1966.
1758. Id. at 1019–20, 85 U.S.P.Q.2d (BNA) at 1971.
1759. Id. at 1019, 85 U.S.P.Q.2d (BNA) at 1971.
calculation on the use of an anomalous 120 pound density figure.\textsuperscript{1761} Thus, the Federal Circuit vacated the district court’s ruling on this issue and remanded for further fact-finding concerning the soybean density issue.\textsuperscript{1762}

In Amado v. Microsoft Corp.,\textsuperscript{1763} the district court awarded plaintiff Amado a post-verdict royalty equivalent to $0.12 per infringing unit for products sold during the stay of a permanent injunction against Microsoft.\textsuperscript{1764} The district court reached $0.12 by trebling the pre-verdict reasonable royalty of $0.04, reasoning that post-verdict sales should be considered willful infringement.\textsuperscript{1765} Reviewing the award on appeal, the Federal Circuit noted that willfulness “is not the inquiry when the infringement is permitted by a court-ordered stay.”\textsuperscript{1766} The court vacated the district court’s award because it “did not expressly consider that Microsoft’s infringing sales took place following the grant of an injunction that was stayed.”\textsuperscript{1767} The Federal Circuit remanded the matter for reconsideration because the court was “unable to determine whether the district court’s award of $0.12 was a reasonable exercise of its discretion.”\textsuperscript{1768}

In addition, Microsoft argued that any damages awarded to Amado must be adjusted in light of Microsoft Corp. v. AT & T Corp.,\textsuperscript{1769} which held “that liability under 35 U.S.C. § 271(f) does not extend to the installation of software onto a computer abroad when the copies of that software are made abroad, because in such case the copies are not ‘supplied’ from the United States within the meaning of that statute.”\textsuperscript{1770} Based on AT & T, Microsoft argued that “[a]ny damages awarded to Amado should . . . be limited to products manufactured and or sold in the United States.”\textsuperscript{1771} Though the Federal Circuit concluded that “Microsoft is entitled to assert the AT & T decision,” the court was “unable to determine whether the infringing products sold by Microsoft were provided in such a way as to not be ‘supplied from the United States’ as required to extinguish § 271(f) liability.”\textsuperscript{1772} Thus, the Federal Circuit remanded to the district court “to decide

\begin{footnotes}
\begin{enumerate}
\item\textsuperscript{1761} Id. at 1018–19, 85 U.S.P.Q.2d (BNA) at 1970.
\item\textsuperscript{1762} Id. at 1019, 85 U.S.P.Q.2d (BNA) at 1971.
\item\textsuperscript{1763} 517 F.3d 1353, 86 U.S.P.Q.2d (BNA) 1090 (Fed. Cir. 2008).
\item\textsuperscript{1764} Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1097.
\item\textsuperscript{1765} Id. at 1361, 86 U.S.P.Q.2d (BNA) at 1096.
\item\textsuperscript{1766} Id. at 1362, 86 U.S.P.Q.2d (BNA) at 1097.
\item\textsuperscript{1767} Id., 86 U.S.P.Q.2d (BNA) at 1097.
\item\textsuperscript{1768} Id., 86 U.S.P.Q.2d (BNA) at 1097.
\item\textsuperscript{1769} 550 U.S. 437, 82 U.S.P.Q.2d (BNA) 1400 (2007).
\item\textsuperscript{1770} Amado, 517 F.3d at 1363, 86 U.S.P.Q.2d (BNA) at 1098.
\item\textsuperscript{1771} Id., 86 U.S.P.Q.2d (BNA) at 1098.
\item\textsuperscript{1772} Id. at 1364, 86 U.S.P.Q.2d (BNA) at 1098.
\end{enumerate}
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the applicability of AT & T” along with its reconsideration of the “proper disbursement of funds from escrow.”

3. Costs

In Zenith Electronics Corp. v. PDI Communications Systems, Inc., plaintiff Zenith brought an action against PDI for infringement of its patents relating to televisions and wired remote controls used in hospital rooms. Among its other summary judgment rulings, the district court denied PDI’s motion for costs without further explanation and PDI cross-appealed. The Federal Circuit agreed with PDI that “Seventh Circuit law requires the district court to provide some explanation of its decision regarding costs.” However, the court noted that because the court vacated and remanded several of the district court’s summary judgment rulings, it was “in no position to opine on whether PDI should ultimately be deemed the prevailing party for purposes of recovering costs.” The court held that PDI could move again for costs and that the district court’s “conclusion on that issue should be accompanied by an explanation in accordance with Krocka v. City of Chicago.”

4. Marking

In Wine Railway Appliance Co. v. Enterprise Railway Equipment Co., the Supreme Court held that “under the predecessor statute to the notice provision of 35 U.S.C. § 287, a patentee who fails to mark his patented article with the appropriate patent number could only recover damages for infringement occurring after actual notice was provided the infringer.” In DSW, Inc. v. Shoe Pavilion, Inc., the Federal Circuit held that the district court misapplied Wine Railway because it failed to recognize “that a patentee may indeed recover damages for infringement that continues after actual notice is provided.”

1773. Id., 86 U.S.P.Q. 2d (BNA) at 1098.
1775. Id. at 1351–52, 86 U.S.P.Q. 2d (BNA) at 1514–15.
1776. Id. at 1352, 86 U.S.P.Q. 2d (BNA) at 1515.
1777. Id. at 1367, 86 U.S.P.Q. 2d (BNA) at 1527.
1778. Id., 86 U.S.P.Q. 2d (BNA) at 1527.
1779. 203 F.3d 507 (7th Cir. 2000).
1783. 537 F.3d 1342, 87 U.S.P.Q. 2d (BNA) 1687 (Fed. Cir. 2008).
1784. Id. at 1348, 87 U.S.P.Q. 2d (BNA) at 1692.
DSW brought an action against Shoe Pavilion for infringement of its patents for a system of storing and displaying a large selection of footwear for customer self-service. The district court granted summary judgment for Shoe Pavilion, citing Wine Railway and holding that “no damages for infringement are recoverable by a plaintiff unless the infringing activity continues after notice is provided to the infringer.” The district court excused post-notice infringement because “Shoe Pavilion took reasonable steps and timely removed all of the infringing shoe displays.” The Federal Circuit reversed the district court’s holding, stating that the trial court had “erred in concluding that Shoe Pavilion’s reasonable steps and good faith efforts to bring its infringing activity to a timely end equated to an immediate cessation.” The court held that the “district misapplied the standard expressed by the Supreme Court in Wine Railway” and that “a patentee may indeed recover damages for infringement that continues after actual notice is provided” regardless of how diligently the infringer takes steps to stop infringing. The court reiterated that “the law offers an infringer no exception to liability for the time it takes to terminate infringing activities, no matter how expeditious and reasonable its efforts.”

IX. PENALTIES

A. Enhanced Damages for Willful Infringement

Patent infringement is a strict liability offense; therefore, the nature of the offense is only relevant in determining whether enhanced damages are warranted. The Patent Act does not provide any standard for the award of enhanced damages. Accordingly, the Federal Circuit has held that an award of enhanced damages requires a showing of willful infringement.

In 2007, the Federal Circuit, sitting en banc, overruled its earlier precedent and changed the standard for a finding of willful infringement “from one of an affirmative duty of care to one of
objective recklessness." Thus, to support an award of enhanced damages, the plaintiff must prove by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.

In Minks v. Polaris Industries, Inc., the Federal Circuit considered whether a jury's finding of willfulness in a trial that occurred before In re Seagate Technology, LLC must be reversed in light of that decision, and concluded that it did not. In Minks, the owner of a patent directed to an electronic governor system for internal combustion engines sued Polaris Industries, a manufacturer of all-terrain vehicles ("ATVs"), for infringement. Approximately one year before filing suit—and after the parties had exchanged several communications regarding Minks's patent rights—Minks sent a letter informing Polaris of its belief that Polaris's ATVs infringed Minks's patent. At the conclusion of the evidence at trial, the jury was given a willfulness instruction that Polaris argued on appeal was plain error in light of Seagate, but to which Polaris did not object at trial. The jury found that Polaris willfully infringed Minks's patent. The district court subsequently granted enhanced damages and attorney fees.

When a jury instruction is not objected to at trial, the appeals court will review the instruction only for "plain error." The Federal Circuit in Minks applied the regional circuit’s plain error review standard:

Under [the United States Court of Appeals for the Eleventh Circuit’s] plain error review, an appellate court must not correct an error the defendant failed to raise in the district court unless there is (1) error, (2) that is plain, and (3) that affects substantial rights. If all three of those conditions are met, the court may exercise its discretion to notice a forfeited error but only if (4) the error

1796. Seagate, 497 F.3d at 1371, 83 U.S.P.Q.2d (BNA) 1865, 1870.
1797. 546 F.3d 1364, 89 U.S.P.Q.2d (BNA) 1102 (Fed. Cir. 2008).
1798. 497 F.3d 1360, 1368, 83 U.S.P.Q.2d (BNA) 1865, 1868 (Fed. Cir. 2007) (en banc).
1799. Id. at 1379–81, 89 U.S.P.Q.2d (BNA) at 1114–15.
1800. Id. at 1367–69, 89 U.S.P.Q.2d (BNA) at 1104–06.
1801. Id. at 1369, 89 U.S.P.Q.2d (BNA) at 1106.
1802. Id. at 1379, 89 U.S.P.Q.2d (BNA) at 1114.
1803. Id. at 1369, 89 U.S.P.Q.2d (BNA) at 1106. However, the district court subsequently granted Polaris's motion for a reduction in damages and reduced Minks's original award. Id., 89 U.S.P.Q.2d (BNA) at 1106.
1804. Id. at 1379, 89 U.S.P.Q.2d (BNA) at 1114.
seriously affects the fairness, integrity, or public reputation of judicial proceedings.\textsuperscript{1806} Affirming the jury's finding of willfulness, the Federal Circuit concluded that it did not need to decide whether the instruction given to the jury constituted plain error, because Polaris failed to offer any argument or to cite any evidence to establish that any alleged error affected its substantial rights or affected the fairness, integrity, or public reputation of judicial proceedings—the third and fourth elements of the Eleventh Circuit's plain error standard.\textsuperscript{1807} Specifically, Polaris made no argument that the jury would not have found willfulness if it was instructed differently, arguing instead that the jury's willfulness finding “affected its substantial rights because it resulted in the imposition of enhanced damages and attorney fees.”\textsuperscript{1808} The Federal Circuit also stated that it did not think Polaris could have shown that the alleged error in the jury instruction affected its substantial rights because the trial court's order granting enhanced damages stated that it was “fairly clear” that deliberate copying had taken place and that “the case was not close.”\textsuperscript{1809} Based on that record, the Federal Circuit stated “it appears that error in the jury instruction was not prejudicial because the jury may very well have arrived at the same result.”\textsuperscript{1810} The Federal Circuit also stated that there had been no argument that the outcome of the case might “seriously affect[] the fairness, integrity, or public reputation of judicial proceedings,” and affirmed the jury's willfulness verdict.\textsuperscript{1811}

B. Award of Attorney Fees

Section 285 of the Patent Act provides that “[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party.”\textsuperscript{1812} Under that section, the trial court must first determine whether the particular case is “exceptional,” a determination that must be based on clear and convincing evidence.\textsuperscript{1813} If the court finds that it is, the trial court must then

\textsuperscript{1806} Id. at 1379–80, 89 U.S.P.Q.2d (BNA) at 1114 (quoting United States v. LeCroy, 441 F.3d 914, 930 (11th Cir. 2006)).
\textsuperscript{1807} Id. at 1380–81, 89 U.S.P.Q.2d (BNA) at 1114–15.
\textsuperscript{1808} Id., 89 U.S.P.Q.2d (BNA) at 1115.
\textsuperscript{1809} Id. at 1381, 89 U.S.P.Q.2d (BNA) at 1115 (quoting Minks v. Polaris Indus., Inc., No. 6:05-cv-1894-Orl-31KRS, 2007 WL 788418, at *1 (M.D. Fla. Mar. 14, 2007)).
\textsuperscript{1810} Id. at 1381, 89 U.S.P.Q.2d (BNA) at 1115.
\textsuperscript{1811} Id., 89 U.S.P.Q.2d (BNA) at 1115 (quoting United States v. LeCroy, 441 F.3d 914, 930 (11th Cir. 2006)) (alteration in original).
determine, as a matter of discretion, whether to award attorney fees.\textsuperscript{1814} However, “[i]n order to provide a basis for meaningful review” of the decision to award attorney fees under section 285, the court of appeals requires the trial court not only to make the ultimate finding that the case is exceptional, “but also to articulate the more particular factual findings from which the finding of ‘exceptional circumstances’ follows.”\textsuperscript{1815}

In Innovation Technologies, Inc. v. Splash! Medical Devices, LLC,\textsuperscript{1816} the Federal Circuit vacated and remanded an award of attorney fees under § 285 because the district court did not provide sufficient factual findings to allow for appellate review.\textsuperscript{1817} In that case, more than one year after filing suit and following extensive discovery (but prior to a Markman v. Westview Instruments, Inc.\textsuperscript{1818} hearing), Innovation executed a covenant not to sue Splash on the patent at issue and moved to dismiss its infringement suit with prejudice.\textsuperscript{1819} Splash subsequently moved for attorney fees pursuant to § 285. The district court granted the motion in a one-paragraph order stating in relevant part:

This case qualifies as an “exceptional” case under 35 U.S.C. § 285 justifying an award of attorney’s fees to Splash as the prevailing party. Splash has shown by clear and convincing evidence that Innovation knew or, on reasonable investigation, should have known, that its claims of infringement were baseless. It appears to me that the lawsuit was filed solely for the purpose of harassing a small competitor.\textsuperscript{1820}

The Federal Circuit held that “[t]he three conclusory statements quoted above—which merely stated that this is an exceptional case, that Innovation knew or should have known that its claims of infringement were ‘baseless,’ and that it ‘appear[ed]’ that the suit was filed ‘solely’ to ‘harass’ a small competitor,” were inadequate to allow the Federal Circuit to perform its review function.\textsuperscript{1821}

On remand, the district court was provided with latitude to select the bases for its conclusion that the case was exceptional:

\footnotesize{1814. See id. at 1329, 67 U.S.P.Q.2d (BNA) at 1686 (noting the “limited circumstance in which an award of attorney fees is appropriate”).
1816. 528 F.3d 1348, 87 U.S.P.Q.2d (BNA) 1222 (Fed. Cir. 2008).
1817. Id. at 1351–52, 87 U.S.P.Q.2d (BNA) at 1224.
1819. Id. at 1350, 87 U.S.P.Q.2d (BNA) at 1223.
1821. Id. at 1351, 87 U.S.P.Q.2d (BNA) at 1224.
Of course, the district court need not necessarily make findings on all of [the points raised by the parties]. Findings on those issues upon which the court bases its new determination of the “exceptional case” issue are all that is required. The detail necessary . . . is a matter largely within the district court’s discretion.\footnote{\textsuperscript{1822}}

If the district court awards attorney fees based on its exceptional case finding, it must also explain the reasons for the conclusion that such an award is warranted.\footnote{\textsuperscript{1823}}

Over a dissenting opinion, the Federal Circuit held that the trial court’s findings of inequitable conduct and litigation misconduct could justify an exceptional case finding in Nilssen v. Osram Sylvania, Inc.\footnote{\textsuperscript{1824}} In a 2000 complaint, Nilssen accused Osram of infringing twenty-six patents relating to fluorescent light bulbs and ballasts used in combination with fluorescent light bulbs.\footnote{\textsuperscript{1825}} Over the next five years, Nilssen informally removed several of those patents from the case while attempting to assert additional patents through a variety of means, all without formally releasing Osram from infringement liability on any of the patents.\footnote{\textsuperscript{1826}} By the time of trial, Nilssen formally reduced the number of patents being asserted to eleven.\footnote{\textsuperscript{1827}}

Following a bench trial on inequitable conduct, the district court held that the asserted patents were unenforceable because Nilssen had misclaimed small entity status and improperly paid small entity maintenance fees, failed to disclose to the patent examiner litigation related to the patent applications, misclaimed the priority of earlier filing dates, withheld material prior art, and submitted misleading affidavits to the Patent and Trademark Office.\footnote{\textsuperscript{1828}} In a 2007 decision, the Federal Circuit affirmed the district court’s inequitable conduct ruling.\footnote{\textsuperscript{1829}}

In addition, Nilssen engaged in litigation conduct, which the district court found was relevant to the exceptional case finding. Nilssen had refused to provide a witness for a deposition absent a court instruction to do so, claiming that its own unverified interrogatory responses had no legal effect at trial, claimed reliance on tax counsel’s advice as a defense to inequitable conduct after

\footnotesize{\textsuperscript{1822}} Id. at 1352, 87 U.S.P.Q.2d (BNA) at 1224.  
\footnotesize{\textsuperscript{1823}} Id., 87 U.S.P.Q.2d (BNA) at 1224.  
\footnotesize{\textsuperscript{1824}} 528 F.3d 1352, 1361, 87 U.S.P.Q.2d (BNA) 1161, 1167 (Fed. Cir. 2008).  
\footnotesize{\textsuperscript{1825}} Id. at 1354, 87 U.S.P.Q.2d (BNA) at 1162.  
\footnotesize{\textsuperscript{1826}} Id. at 1354–55, 87 U.S.P.Q.2d (BNA) at 1162.  
\footnotesize{\textsuperscript{1827}} Id. at 1355, 87 U.S.P.Q.2d (BNA) at 1162–63.  
\footnotesize{\textsuperscript{1828}} Id. at 1356, 87 U.S.P.Q.2d (BNA) at 1163.  
\footnotesize{\textsuperscript{1829}} Nilssen v. Osram Sylvania, Inc., 504 F.3d 1223, 1235–36, 84 U.S.P.Q.2d (BNA) 1811, 1820 (Fed. Cir. 2007).}
having asserted attorney-client privilege over such advice, and had produced documents late.\footnote{1830}

On Osram’s post-trial motion for attorney fees, the district court concluded that the case was exceptional and awarded Osram its attorney fees.\footnote{1831} The district court identified three reasons for finding exceptionality: “Nilssen’s inequitable conduct, the frivolous nature of the lawsuit, and [Nilssen’s] litigation misconduct.”\footnote{1832}

In reviewing the district court’s exceptional case determination, the Federal Circuit first clarified that there is no per se rule of exceptionality in cases involving inequitable conduct but, in appropriate cases, a finding of inequitable conduct can constitute a basis for the award of attorney fees.\footnote{1833} The Court then rejected appellant Nilssen’s argument that the district court’s exceptional case finding should be reversed because Nilssen’s inequitable conduct was “benign,” stating “[i]f certain conduct has been held to be inequitable, and we have affirmed the district court’s conclusion that it was here, it is hence per se not benign.”\footnote{1834}

The Court explained that the inequitable conduct determination was not the sole basis for the district court’s award of attorney fees and that the findings regarding Nilssen’s litigation misconduct also supported the exceptional case finding.\footnote{1835} The Federal Circuit declined to independently address Nilssen’s arguments that each instance of litigation misconduct found by the district court was either harmless oversight of a litigation formality or a permissibly rough litigation tactic.

As an appellate court, we are ill-suited to weigh such evidence. All of the instances described above are context-specific, and the district court found that, taken in context, they amounted to litigation misconduct . . . . [W]e are not left with the firm conviction that a mistake was committed. Furthermore, it ill behooves an appellate court to overrule a trial judge concerning litigation misconduct when the litigation occurred in front of the trial judge, not the appellate court.\footnote{1836}

Finally, the Court stated that the abuse of discretion standard of review was central to its decision to affirm the district court’s grant of attorney fees.\footnote{1837}

\begin{itemize}
\item \footnote{1830} Nilssen, 528 F.3d at 1355-56, 87 U.S.P.Q.2d (BNA) at 1163.
\item \footnote{1831} Id. at 1356, 87 U.S.P.Q.2d (BNA) at 1163.
\item \footnote{1832} Id., 87 U.S.P.Q.2d (BNA) at 1163.
\item \footnote{1833} Id. at 1358, 87 U.S.P.Q.2d (BNA) at 1164.
\item \footnote{1834} Id., 87 U.S.P.Q.2d (BNA) at 1164-65.
\item \footnote{1835} Id., 87 U.S.P.Q.2d (BNA) at 1165.
\item \footnote{1836} Id. at 1359, 87 U.S.P.Q.2d (BNA) at 1165.
\item \footnote{1837} Id. at 1360, 87 U.S.P.Q.2d (BNA) at 1166.
\end{itemize}
Dissenting, Judge Newman stated that the majority's decision "promotes unexceptional trial procedures and non-culpable prosecution errors into an 'exceptional case' of such severity as to warrant the award of attorney fees." First citing the "American Rule" that "one should not be penalized for merely defending or prosecuting a lawsuit," her opinion reviewed in detail the Federal Circuit's 2007 decision upholding the finding of inequitable conduct and argued that the findings in that opinion did not justify the majority's conclusion. Judge Newman also argued that the panel majority's analysis was a departure from Federal Circuit precedent because the majority held that "the nature of the grounds on which inequitable conduct [is] found is not relevant to the attorney fee determination." Her dissent concluded that the panel majority's holding "enlarges the scope of 'exceptional case' to include less than egregious aspects of patent prosecution and litigation practice, with no evidence or charge of bad faith or prejudice."

In Qualcomm Inc. v. Broadcom Corp., the Federal Circuit held that Qualcomm's litigation misconduct, standing alone, was sufficient to justify an award of attorney fees under § 285. In response to Qualcomm's complaint of patent infringement alleging that Broadcom products, which utilized the H.264 video compression standard, infringed patents owned by Qualcomm, Broadcom raised a defense that Qualcomm's patents were unenforceable because Qualcomm failed to disclose the patents to a Joint Video Team ("JVT") standards-setting organization during discussions leading to the adoption of the H.264 video compression standard. Throughout discovery and the trial, Qualcomm represented that it did not participate in the JVT during the development of the relevant standard and, therefore, had no duty to disclose its patents to that body. During cross-examination on one of the last days of the

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1838. Id. at 1361, 87 U.S.P.Q.2d (BNA) at 1167.
1839. See id. at 1361–63, 87 U.S.P.Q.2d (BNA) at 1167–68 (quoting Summit Valley Indus., Inc. v. Local 112, United Bhd. of Carpenters, 456 U.S. 717, 724 (1982)) (stating that the majority had truncated its explanation of the underlying facts).
1840. Id. at 1364, 87 U.S.P.Q.2d (BNA) at 1169.
1841. Id. at 1365, 87 U.S.P.Q.2d (BNA) at 1169.
1842. 548 F.3d 1004, 89 U.S.P.Q.2d (BNA) 1321 (Fed. Cir. 2008). For discussion of this case's implications regarding breach of duty to a standards setting organization, see supra notes 1551–1556.
1843. See id. at 1027, 89 U.S.P.Q.2d (BNA) at 1337–38 (concluding that Broadcom should receive attorney fees related to the exceptional case determination).
1844. See id. at 1008–09, 89 U.S.P.Q.2d (BNA) at 1323–24 (summarizing the district court's conclusion that Qualcomm's patent was unenforceable because of its inequitable conduct).
1845. Id. at 1009, 89 U.S.P.Q.2d (BNA) at 1324.
infringement trial, however, a Qualcomm witness acknowledged that
she possessed emails relating to the JVT that Qualcomm previously
claimed did not exist. Ultimately, it was revealed that Qualcomm
possessed over 200,000 pages of emails and electronic documents
demonstrating that Qualcomm had participated in the JVT from as
early as January 2002. The district court later concluded that
Qualcomm “knowingly attempted in trial to continue the
concealment of evidence.” It also determined, based on the late-
produced evidence, that Qualcomm engaged in a “carefully
orchestrated plan . . . to achieve its goal of holding hostage the entire
industry desiring to practice the H.264 standard” by concealing from
the JVT the existence of the asserted patents, and held numerous
Qualcomm patents unenforceable.

Following trial, the district court granted Broadcom’s motion for
attorney fees, basing its exceptional case determination both on
Qualcomm’s “bad faith participation” in the JVT and Qualcomm’s
“litigation misconduct . . . during discovery, motions practice, trial,
and post-trial proceedings.”

On appeal, Qualcomm argued that the district court’s grant of
attorney fees should be vacated because it was based in part on
Qualcomm’s bad faith participation in the JVT and that “a patentee’s
bad faith business conduct toward an accused infringer prior to
litigation” should not be factored into an award of attorney fees
under § 285. The Federal Circuit held that the district court’s
findings regarding Qualcomm’s bad faith participation in the JVT
were not clearly erroneous, and that the district court’s litigation
misconduct findings were sufficient standing alone to support the
exceptional case determination. Accordingly, “in the
circumstances of the present case it was not error for the district
court to additionally consider the related JVT misconduct, which was
an important predicate to understanding and evaluating the
litigation misconduct.”

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1846. Id., 89 U.S.P.Q.2d (BNA) at 1324.
1847. Id., 89 U.S.P.Q.2d (BNA) at 1324.
1848. Id., 89 U.S.P.Q.2d (BNA) at 1324 (quoting Order on Remedy for Finding of
Waiver, Qualcomm Inc. v. Broadcom Corp., 539 F. Supp. 2d 1214, 1245 (S.D. Cal.
2007) (Civ. No. 05-CV-1958-B(BLM))).
1849. Id. at 1009–10, 89 U.S.P.Q.2d (BNA) at 1324.
1850. Id. at 1010, 89 U.S.P.Q.2d (BNA) at 1324–25 (quoting Qualcomm Inc. v.
Broadcom Corp., No. 05-CV-1958, 2007 WL 2261799 at *2 (S.D. Cal. Aug. 6, 2007)).
1851. Id. at 1026–27, 89 U.S.P.Q.2d (BNA) at 1337.
1852. Id. at 1027, 89 U.S.P.Q.2d (BNA) at 1337.
1853. Id., 89 U.S.P.Q.2d (BNA) at 1337.
In Minks v. Polaris Industries, Inc., based on a jury’s finding of willful infringement, the district court determined that the case was exceptional under § 285 and awarded Minks attorney fees. The district court determined that a “reasonable fee” was $234,663.00, but awarded only half that amount on the basis that Minks’s damages theory was “economic nonsense” and that the reduction was warranted to offset “the great deal of time during trial [that] was wasted by Plaintiff attempting to evade the basic laws of economics and common sense.”

On Minks’s appeal of the reduced attorney fees award, the Federal Circuit affirmed. “[W]e detect no abuse of discretion in the award of attorney fees. Even on appeal, Minks remains unable or unwilling to articulate a coherent damages theory.”

Finally, in Takeda Chemical Industries, Ltd. v. Mylan Labs., Inc. the Federal Circuit affirmed the district court’s finding of an exceptional case and award of $16,800,000 in attorney fees against generic drug manufacturer defendants. The court found no abuse of discretion in the district court’s finding that the totality of circumstances, including the lack of a good faith basis for Paragraph IV ANDA certifications and numerous instances of litigation misconduct, merited the award.

The district court’s award was supported in part by the fact that defendants Alphapharm Pty., Ltd. and Genpharm, Inc. (collectively, “Alphapharm”) and Mylan Laboratories, Inc., Mylan Pharmaceuticals, Inc., and UDL Laboratories, Inc. (collectively, “Mylan”) had changed their invalidity arguments from those initially presented in their Paragraph IV certification letters. In particular, the district court found Alphapharm’s certification letter to be “baseless” and Mylan’s to have been “filed in bad faith and with no reasonable basis ...” On appeal, defendant-appellants were joined in amicus curiae by the Generic Pharmaceutical Association, in arguing that “ANDA filers should be allowed to litigate the best available theories at trial,” regardless of whether the theories were

1854. 546 F.3d 1364, 89 U.S.P.Q.2d (BNA) 1102 (Fed. Cir. 2008).
1855. Id. at 1375, 89 U.S.P.Q.2d (BNA) at 1110.
1856. Id., 89 U.S.P.Q.2d (BNA) at 1110 (quoting Order, Minks v. Polaris Indus., Inc., No. 6:05-cv-1894-Orl-31KRS, 2007 WL 1725211, at *2 (M.D. Fla. 2007)).
1857. Id., 89 U.S.P.Q.2d (BNA) at 1110.
1858. Id., 89 U.S.P.Q.2d (BNA) at 1110.
1860. Id. at 1384, 89 U.S.P.Q.2d (BNA) at 1220.
1862. Id. at 1385, 89 U.S.P.Q.2d (BNA) at 1221 (internal quotations omitted).
initially included in the certification letters. Amicus and the defendant-appellants argued that affirming the district court’s decision would “have a chilling effect on future ANDA patent challenges.”

The Federal Circuit found this “chilling” argument unpersuasive. The court noted that, in making a Paragraph IV certification, ANDA filers are required by statute to “include a detailed statement of the factual and legal basis of the opinion of the applicant that the patent is invalid.” The court did not find that the district court’s opinion had limited ANDA filers to only those theories of invalidity raised in certification letters. The district court’s finding of an exceptional case was supported by the specific circumstances of the case, namely “baseless certification letters compounded with litigation misconduct.”

X. REVIEW OF ADMINISTRATIVE ACTIONS

A. Administrative Law

Congress established the inter partes reexamination procedure in the American Inventors Protection Act of 1999 (“AIPA”). Inter partes reexamination allows third parties to have an expanded role in the reexamination of issued patents by allowing the third party “to participate in the reexamination by submitting written comments addressing issues raised in the patent owner’s response to an office action, appealing a decision in favor of patentability, and participating as a party to an appeal taken by the patent owner.”

The AIPA includes the following provision establishing its effective date: “Subject to subsection (b), this subtitle and the amendments made by this subtitle shall take effect on the date of the enactment of this Act and shall apply to any patent that issues from an original application filed in the United States on or after that date.”

In Cooper Technologies Co. v. Dudas, the Federal Circuit considered the meaning of the phrase “original application” in § 4608 of AIPA.

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1863. Id. at 1386, 89 U.S.P.Q.2d (BNA) at 1222.
1864. Id., 89 U.S.P.Q.2d (BNA) at 1222.
1866. Id., 89 U.S.P.Q.2d (BNA) at 1225.
1867. Id., 89 U.S.P.Q.2d (BNA) at 1225.
1870. § 4608, 113 Stat. at 1501A-572 (emphasis added).
1871. Cooper, 536 F.3d at 1330, 87 U.S.P.Q.2d (BNA) at 1705.
The Federal Circuit concluded that the PTO interpretation of “original application” as encompassing “utility, plant and design applications, including first filed applications, continuations, divisionals, continuations-in-part, continued prosecution applications and the national stage phase of international applications” is reasonable and is entitled to Chevron deference.

In Cooper, third party Thomas & Betts Corporation requested an inter partes reexamination of U.S. Patent No. 6,984,791 owned by appellant Cooper Technologies Company. Cooper responded that inter partes reexamination was not available because the original application that resulted in the ’791 patent was filed before November 29, 1999, the effective date of the AIPA. The PTO determined that the application resulting in the ’791 patent, though a continuation of an earlier application, was an “original application” for the purposes of the AIPA and, thus, was subject to inter partes reexamination. The reexamination went forward over Cooper’s objection and the Patent Office issued an initial office action rejecting all claims of the patent as invalid.

Cooper sued the Director of the PTO in U.S. district court. The district court found that the PTO’s interpretation was “fully consistent with the term [original application]’s established meaning in patent law” and granted summary judgment in favor of the PTO. The district court, however, declined to address the question of the level of deference accorded to the PTO’s interpretation of “original

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1872. Id. at 1335–37, 87 U.S.P.Q.2d (BNA) at 1709–11.
1873. In Chevron U.S.A., Inc. v. Natural Res. Def. Council, 467 U.S. 837, 842 (1984), the Supreme Court set forth the legal analysis for determining whether to grant deference to a government agency’s interpretation of its own statutory mandate. Under Chevron, a reviewing court must first ask “whether Congress has directly spoken to the precise question at issue.” Id. If Congress has done so, the inquiry is at an end; the court “must give effect to the unambiguously expressed intent of Congress.” Id. at 843. If, however, “the statute in question is ambiguous and the agency’s interpretation is reasonable,” Cathedral Candle Co. v. U.S. Int’l Trade Comm’n, 400 F.3d 1352, 1361 (Fed. Cir. 2005), “a court must defer to the agency’s construction of a statute governing agency conduct.” Id.
1875. Id. at 1334, 87 U.S.P.Q.2d (BNA) at 1708.
1876. Id., 87 U.S.P.Q.2d (BNA) at 1708.
1877. Id., 87 U.S.P.Q.2d (BNA) at 1708.
1878. Id., 87 U.S.P.Q.2d (BNA) at 1708.
1879. Id., 87 U.S.P.Q.2d (BNA) at 1708.
application,” finding instead that the outcome would be the same regardless of the level of deference owed to the PTO. 1881

On appeal, the Federal Circuit addressed the appropriate level of deference for the PTO’s interpretation of the AIPA. 1882 The Federal Circuit found that, because the PTO was merely clarifying or explaining existing law, its reading of the term “original application” was “interpretative” rather than “substantive” and, therefore, within the PTO’s authority under 35 U.S.C. § 2. 1883 Because the PTO was acting within its authority to administer statutory provisions relating to the “conduct of proceedings in the Office,” the Court found that the PTO’s interpretation was entitled to analysis under the Chevron framework. 1884 Finding that Congress had not directly spoken on the issue—that the PTO expressly interpreted “original application” shortly after the AIPA was enacted and that Congress did not amend the “original application” language when it amended the AIPA—the Federal Circuit determined that the PTO’s interpretation of section 4608 was permissible. 1885

In Technology Licensing Corp. v. Videotek, Inc., 1886 the Federal Circuit also considered the level of deference owed to a determination of the PTO. 1887 In the lower court, Technology Licensing Corp. (“TLC”) filed a complaint against Videotek, Inc. alleging infringement of two TLC patents. 1888 A magistrate judge found that the asserted claim of one patent was indefinite and of the other patent was valid but not infringed. 1889 Both parties appealed the magistrate’s ruling to the Federal Circuit. 1890 TLC separately filed a reissue application regarding one of the asserted patents, U.S. Patent No. 5,754,250. 1891 After the oral argument but before the Federal Circuit issued its opinion, the PTO reissued the ’250 patent with the original claims unchanged. 1892 The Court declined to consider the effect of the PTO’s grant of a reissue, 1893 finding instead that “judicial efficiency
and the policy of repose counsels against our re-weighing of the
evidence to add an additional deference-thumb to the scale, or, even
more disruptive, our asking the trial court to reopen the entire
invalidity question to reweigh the intangible worth of additional
defereence.\footnote{1894}

In In re Swanson,\footnote{1895} the Federal Circuit reviewed de novo the PTO’s
Board of Patent Appeals and Interferences’ (the “Board”) interpretation of 35 U.S.C. § 303(a), which permits the PTO to grant
a reexamination request only if it determines that “a substantial new
question of patentability affecting any claim of the patent concerned
is raised by the request.”\footnote{1896} While the PTO’s “interpretation of
statutory provisions concerning ‘the conduct of proceedings in the
Office’” may be owed deference, the Board’s statutory interpretation
is entitled to none.\footnote{1897}

B. PTO Procedures

In re Swanson also considered the scope of 35 U.S.C. § 303(a) for
the first time since a 2002 amendment specifying that “[t]he
existence of a substantial new question of patentability is not
precluded by the fact that a patent or printed publication was
previously cited by or to the Office or considered by the Office.”\footnote{1898}

The Federal Circuit determined that, under amended § 303(a) as
revised, a “substantial new question of patentability” could exist even
if a federal court had previously considered the question.\footnote{1899} “[A]
‘substantial new question of patentability’ refers to a question which
has never been considered by the PTO.”\footnote{1900}

In prior infringement litigation between Abbott Laboratories, an
exclusive licensee of Mr. Swanson’s patent, and Syntron Bioresearch,
Inc., the alleged infringer, both the district court and the Federal
Circuit had determined that a prior art reference known as “Deutsch”
did not anticipate asserted claims of a patent-in-suit.\footnote{1901} Despite the
rulings of the Article III courts, the Federal Circuit held that the

\footnote{1894. Id., 88 U.S.P.Q.2d (BNA) at 1876.}
\footnote{1895. 540 F.3d 1368, 88 U.S.P.Q.2d (BNA) 1196 (Fed. Cir. 2008).}
\footnote{1896. Id. at 1374–75, 88 U.S.P.Q.2d (BNA) at 1200–01 (quoting 35 U.S.C. § 303(a)
(2006)).}
\footnote{1897. Id. at 1374 n.3, 88 U.S.P.Q.2d (BNA) at 1206 n.3 (quoting 35 U.S.C. § 2(b)(2)(A) (2006)) (distinguishing Cooper Techs. Co. v. Dudas, 536 F.3d 1330, 87
U.S.P.Q.2d (BNA) 1705 (Fed. Cir. 2008)).}
\footnote{1898. Id. at 1376, 88 U.S.P.Q.2d (BNA) at 1204 (quoting 35 U.S.C. § 303(a)
(2006)).}
\footnote{1899. Id. at 1379, 88 U.S.P.Q.2d (BNA) at 1204.}
\footnote{1900. Id., 88 U.S.P.Q.2d (BNA) at 1204.}
\footnote{1901. Id. at 1373, 88 U.S.P.Q.2d (BNA) at 1199.
question of whether Deutsch was an anticipatory reference could still raise a substantial new question of patentability sufficient to initiate a reexamination. The Federal Circuit stated that a “court’s final judgment and the examiner’s rejection are not duplicative—they are differing proceedings with different evidentiary standards for validity.” In civil litigation, a challenger must prove invalidity by clear and convincing evidence. During patent examinations and reexaminations, however, an applicant need only prove validity by a preponderance of the evidence. Thus, the fact that an Article III court had determined the validity of the asserted claims did not preclude the PTO from coming to a contrary conclusion under its own, different evidentiary standards for determining validity.

Nor was the fact that the examiner had already considered the Deutsch reference during the initial examination a bar to the PTO considering the reference again on re-examination. The initial examiner relied upon Deutsch only as a secondary reference in an obviousness rejection of a broader claim.

In light of the extremely limited purpose for which the examiner considered Deutsch in the initial examination, the Board is correct that the issue of whether Deutsch anticipates the method disclosed in claims 22, 23, and 25 was a substantial new question of patentability, never before addressed by the PTO.

In Burandt v. Dudas, the Federal Circuit affirmed the district court’s grant of summary judgment in favor of the Director of the PTO, where the Director’s decision to deny a patent holder’s request for reinstatement of his patent after failure to pay the maintenance fee was “neither arbitrary or capricious, nor an abuse of discretion.” By operation of an assignment agreement, inventor Burandt assigned the patent at issue to his employer, Investment Rarities, Inc. (“IRI”). IRI failed to pay the first of three statutorily

1902. Id. at 1379, 88 U.S.P.Q.2d (BNA) at 1204.
1903. Id., 88 U.S.P.Q.2d (BNA) at 1204.
1904. See id., 88 U.S.P.Q.2d (BNA) at 1204 (recalling that in an earlier court proceeding, “Syntron had the burden of proving by clear and convincing evidence that the ‘484 patent was invalid”).
1905. See id., 88 U.S.P.Q.2d (BNA) at 1204 (noting that in the examiner’s proceedings, a preponderance of evidence supported invalidity).
1906. Id. at 1377–79, 88 U.S.P.Q.2d (BNA) at 1203–04.
1907. See id. at 1381, 88 U.S.P.Q.2d (BNA) at 1205 (agreeing with the Board that a substantial new question of patentability had been raised under § 303(a)).
1908. Id., 88 U.S.P.Q.2d (BNA) at 1205.
1911. Id. at 1336, 87 U.S.P.Q.2d (BNA) at 1139–40.
1912. Id. at 1330, 87 U.S.P.Q.2d (BNA) at 1135.
mandated maintenance fees. Consequently, the patent expired. Seven years later, Burandt, who had been suffering from a mental illness, contacted the PTO and learned that his patent had expired. Burandt gained legal title to the expired patent and sought to reinstate it by sending a maintenance fee payment to the PTO. The PTO denied Mr. Burandt’s attempts to reinstate his patent. The district court granted summary judgment in favor of the Director of the PTO.

Section 41(c)(1) of 35 U.S.C. provides that “[t]he Director may accept payment of any maintenance fee . . . at any time after the six-month grace period if the delay is shown to the satisfaction of the Director to have been unavoidable.” In determining whether a delay in paying a maintenance fee was unavoidable, one looks to whether the party responsible for payment of the maintenance fee exercised the due care of a reasonably prudent person. The district court noted that IRI was responsible for the payment of maintenance fees and there was no evidence that IRI had exercised due care in paying the maintenance fee. Reviewing the Director’s action under an arbitrary and capricious standard, the Federal Circuit agreed. Burandt’s mental illness and destitute financial condition were irrelevant to the inquiry, because IRI, not Burandt, was the legal owner of the patent at the time the maintenance fees were due.

In Aristocrat Technologies Australia Pty Ltd. v. International Game Technology, appellant Aristocrat Technologies Australia Pty Ltd. filed the national stage application of an international patent cooperation treaty application one day late. As a result, the PTO notified Aristocrat that the application had been abandoned. Aristocrat filed a petition to revive the application pursuant to
37 C.F.R. § 1.137(a),\textsuperscript{1927} which the PTO granted because the delay in filing was “unintentional.”\textsuperscript{1928}

Shortly after the revived application issued as U.S. Patent No. 7,056,215,\textsuperscript{1929} Aristocrat filed suit against International Game Technology and IGT (collectively “IGT”) for infringement of the patent.\textsuperscript{1930} IGT asserted that the ’215 patent was invalid because it had been “improperly revived” by the PTO because the PTO required Aristocrat to show only “unintentional delay” instead of “unavoidable” delay, which IGT asserted was the proper standard.\textsuperscript{1931} The district court agreed and granted summary judgment in IGT’s favor.

The Federal Circuit considered only the threshold issue of whether “improper revival” of an abandoned patent application could be asserted as an invalidity defense in a suit involving the infringement or validity of a patent.\textsuperscript{1932} Overturning the district court’s holding, the Federal Circuit “conclude[d] that ‘improper revival’ is not a cognizable defense in an action involving the validity or infringement of a patent.”\textsuperscript{1933} Not only was “improper revival” not a recognized defense under 35 U.S.C. § 282 (which catalogues “defenses available in an action involving the validity or infringement of a patent”),\textsuperscript{1934} but the court noted that “[t]here is good reason not to permit procedural irregularities during prosecution, such as the one at issue here, to provide a basis for invalidity. Once a patent has issued, the procedural minutiae of prosecution have little relevance to the metes and bounds of the patentee’s right to exclude.”\textsuperscript{1935}

Although it declined to find patents invalid for “procedural irregularit[ies]” in Aristocrat, the Federal Circuit stressed that any irregularity during prosecution that involves inequitable conduct are “redressible under that framework.”\textsuperscript{1936}

In In re DBC,\textsuperscript{1937} the Federal Circuit affirmed a final decision of the Board of Patent Appeals and Interferences, rejecting as obvious claims directed to a “nutraceutical composition” from the fruit of the

\textsuperscript{1927} 37 C.F.R. § 1.137(a) (2008).
\textsuperscript{1928} Aristocrat, 543 F.3d at 659–60, 88 U.S.P.Q.2d (BNA) at 1460.
\textsuperscript{1929} Id. at 659, 88 U.S.P.Q.2d (BNA) at 1459.
\textsuperscript{1930} Id. at 660, 88 U.S.P.Q.2d (BNA) at 1458.
\textsuperscript{1931} Id., 88 U.S.P.Q.2d (BNA) at 1460 (quoting Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech., 491 F. Supp. 2d 916, 924–29 (N.D. Cal. 2007)).
\textsuperscript{1932} Id., 88 U.S.P.Q.2d (BNA) at 1460.
\textsuperscript{1933} Id. at 660–61, 88 U.S.P.Q.2d (BNA) at 1461.
\textsuperscript{1934} Id. at 659, 88 U.S.P.Q.2d (BNA) at 1459.
\textsuperscript{1935} Id. at 661–62, 88 U.S.P.Q.2d (BNA) at 1461.
\textsuperscript{1936} Id. at 663, 88 U.S.P.Q.2d (BNA) at 1462.
\textsuperscript{1937} Id., 88 U.S.P.Q.2d (BNA) at 1462–63.
\textsuperscript{1938} 545 F.3d 1373, 89 U.S.P.Q.2d (BNA) 1123 (Fed. Cir. 2008).
mangosteen tree. Appellant DBC raised for the first time, on appeal to the Federal Circuit, the issue of whether two members of the panel that heard DBC’s appeal from the patent examiner’s rejection had been appointed in violation of the Appointments Clause of the Constitution. However, by not “rais[ing] its objection to the manner of appointment to the Board itself,” DBC waived the issue. A party must object to an agency before attacking the agency action in court because “it gives [the] agency an opportunity to correct its own mistakes” and “it promotes judicial efficiency.”

Nor did the Federal Circuit entertain the merits of the constitutionality of the appointment of the administrative patent judges under the Appointments Clause—an issue raised by Professor John F. Duffy of the George Washington University Law School in a 2007 law review article. Duffy contended that legislation that delegated the power to appoint administrative patent judges to the Director of the PTO instead of the Secretary of Commerce was unconstitutional under the Appointments Clause of the Constitution, because that power is reserved to “the President alone, in the Courts of Law, or in the Heads of Departments.” The court, however, remarked that Professor Duffy’s article was “not an intervening change in law or facts, nor was it based on any legal or factual propositions that were not knowable to DBC when it was proceeding before the Board.” For that reason, there was nothing that prevented DBC from raising the issue to the Board on its own. Moreover, the court found there was no cause to rule on the merits where DBC had not challenged the propriety or competence of the administrative patent law judges and where Congress had already passed remedial legislation re-delegating the power of appointment to the Secretary of the Treasury.

Finally, the Federal Circuit in Hyatt v. Dudas addressed how specific the Board of Patent Appeals and Interferences (BPAI) must

1939. Id. at 1382–83, 89 U.S.P.Q.2d (BNA) at 1130.
1940. Id. at 1377, 89 U.S.P.Q.2d (BNA) at 1126.
1941. U.S. Const. art. II, § 2, cl. 2.
1942. 545 F.3d. at 1378, 89 U.S.P.Q.2d (BNA) at 1127.
1943. Id. at 1378–79, 89 U.S.P.Q.2d (BNA) at 1127–28 (quoting Woodford v. Ngo, 548 U.S. 81, 89 (2006)).
1945. Duffy, supra note 1944, at 21 (citing U.S. Const. art. II, § 2, cl. 2).
1946. In re DBC, 545 F.3d at 1380, 89 U.S.P.Q.2d (BNA) at 1128.
1948. Id. at 1380–81, 89 U.S.P.Q.2d (BNA) at 1129.
be when addressing groups of claims in patent applications. In Hyatt, the BPAI had been confronted with 2,400 claims in twelve related applications from inventor Gilbert Hyatt. The PTO examiner had rejected all of the claims, most commonly based on the written description requirement of 35 U.S.C. § 112(1). On appeal, the BPAI did not review each claim independently, but simply reviewed twenty-one of the claims that Hyatt had discussed in the “Summary of the Invention” sections of his briefs to the BPAI. On the basis of this review of twenty-one claims, the BPAI affirmed the examiner’s rejections of all claims. The Federal Circuit held the BPAI’s method was erroneous and in violation of PTO Rule 1.192(c)(7). That rule allows the BPAI, when addressing multiple claims, to select and review just one representative claim for each “ground of rejection.” The Federal Circuit, on the contrary, held that a “ground of rejection” could not simply be “the statutory requirement for patentability that a claim fails to meet” but had to be “the precise reason why the claim fails that requirement.” Thus, the court held that the BPAI could not consider as a group claims rejected for lack of written description “unless the claims share a common limitation that lacks written description support.”

C. International Trade Commission

1. Jurisdiction

In Amgen, Inc. v. International Trade Commission, the International Trade Commission (“ITC”) ruled that it did not have jurisdiction to investigate and resolve charges of infringement where the imported drug, under development and subject to the 35 U.S.C. § 271(e) safe-harbor statute, had not been sold in the United States and was not the subject of an existing contract for sale. Recognizing that “[t]he Commission’s assignment is to prevent and remedy unfair acts flowing from infringement,” the Federal Circuit reversed the ITC’s

1950. Id. at 1309, 89 U.S.P.Q. 2d (BNA) at 1466.
1951. Id., 89 U.S.P.Q. 2d (BNA) at 1466.
1953. Id., 89 U.S.P.Q. 2d (BNA) at 1467.
1954. Hyatt, 551 F.3d at 1309, 89 U.S.P.Q. 2d (BNA) at 1467.
1955. Id. at 1311, 89 U.S.P.Q. 2d (BNA) at 1468 (citing 37 C.F.R. § 1.192(c)(7)).
1956. Id. at 1312, 89 U.S.P.Q. 2d (BNA) at 1469.
1957. Id. at 1313, 89 U.S.P.Q. 2d (BNA) at 1469.
1959. Id. at 1345, 86 U.S.P.Q. 2d (BNA) at 1190.
determination. The ITC’s jurisdiction is “properly invoked” “[w]hen it has been shown that infringing acts are reasonably likely to occur.”

2. Scope of authority

Upon finding a violation of 19 U.S.C. § 1337, the ITC has the authority to issue two types of exclusion orders: a limited exclusion order (“LEO”), directed to products imported by a respondent, or a general exclusion order (“GEO”), directed to all infringing articles, regardless of whether the importer is a party to the investigation.

The ITC has long used LEOs to exclude not only a respondent’s infringing article, but also any downstream product (whether or not manufactured or imported by that respondent) that incorporates the infringing article.

In Kyocera Wireless Corp. v. International Trade Commission, complainant Broadcom Corporation sought an LEO against infringing baseband processor chips manufactured by Qualcomm Corporation, the only named respondent in this investigation, as well as cellular telephones, PDAs and other wireless communications devices that contained the infringing chips. After having found a violation of § 1337 in the liability phase of the investigation, the ITC addressed the appropriate remedy in a separate phase. Companies with a stake in the outcome of the investigation, including downstream manufacturers of infringing products, like cell phone manufacturers and wireless service providers, intervened to argue against an exclusion order that extended to downstream products. Following hearings on the appropriate remedy, the ITC issued an LEO excluding

[handheld wireless communications devices, including cellular telephone handsets and PDAs, containing Qualcomm baseband processor chips or chipsets that are programmed to enable the]
power saving features covered by claims 1, 4, 8, 9, or 11 of U.S.
Patent No. 6,714,983, wherein the chips or chipsets are
manufactured abroad by or on behalf of Qualcomm
Incorporated.\footnote{1968}

The Federal Circuit determined that the ITC had exceeded its
statutory authority by issuing an LEO that excludes from the United
States downstream products of manufacturers that were not named as
respondents in the investigation.\footnote{1969} According to the Federal Circuit,
19 U.S.C. § 1337(d), the statute from which the ITC derives its
authority to exclude articles that infringe on a valid U.S. patent,
“permits LEOs to exclude only the violating products of named
respondents.”\footnote{1970}

Section 1337(d) provides the following:

(d) Exclusion of articles from entry

(1) If the Commission determines, as a result of an
investigation under this section, that there is a violation of this
section, it shall direct the articles concerned, imported by any
person violating the provision of this section, be excluded
from entry into the United States...

(2) The authority of the Commission to order an exclusion
from entry of articles shall be limited to persons determined
by the Commission to be violating this section unless the
Commission determines that—

(A) a general exclusion from entry of articles is necessary
to prevent circumvention of an exclusion order limited to
products of named person; or

(B) there is a pattern of violation of this section and it is
difficult to identify the source of infringing products.\footnote{1971}

Analyzing § 1337(d) under the Supreme Court’s familiar Chevron
framework,\footnote{1972} the Federal Circuit determined that the statute “speaks
unambiguously to the precise question at issue in this case.”\footnote{1973} In
order to give meaning to each of the statute’s clauses, LEOs must be
limited to “named respondents that the Commission finds in

\footnote{1968} Id., 89 U.S.P.Q.2d (BNA) at 1060–61 (quoting Baseband Processor Chips,
USITC Inv. No. 337-TA-543 (June 2007)).
\footnote{1969} Id. at 1345, 89 U.S.P.Q.2d (BNA) at 1060.
\footnote{1970} Id. at 1358, 89 U.S.P.Q.2d (BNA) at 1070 (emphasis added).
\footnote{1972} See supra note 1873 (summarizing the test for whether to grant deference to
an agency’s interpretation of its own statutory mandate).
\footnote{1973} Kyocera, 545 F.3d at 1358, 89 U.S.P.Q.2d (BNA) at 1070.
violation of section 337. Doing otherwise would render superfluous the sections of the statute concerning GEOs.

The Federal Circuit rejected the Commission and Broadcom’s argument that so limiting the scope of the remedy under a LEO would allow “unnamed, difficult-to-identify importers of infringing articles” to escape enforcement. A party fearing circumvention of an LEO can seek a GEO, as long as the party is able to meet the heightened requirements of § 1337(d)(2)(A) or (B). The Federal Circuit noted that Broadcom’s “strategic decision” to name only chipmaker Qualcomm as a respondent, even though Broadcom knew the identities of the handset manufacturers who incorporated those chips, put the company in a difficult position to argue about the danger of unknown infringers circumventing an LEO. Broadcom did not seek a GEO, so it was not entitled to the exclusion of “downstream products” of those who are not “persons determined . . . to be violating [Section 337].”

1974. Id. at 1356, 89 U.S.P.Q.2d (BNA) at 1068.
1975. See id. (discussing the distinct circumstances in which LEOs and GEOs should be applied).
1976. Id. at 1357, 89 U.S.P.Q.2d (BNA) at 1069.
1979. Id. at 1357–58, 89 U.S.P.Q.2d (BNA) at 1070.