Chapter 2

Novelty and Statutory Bars

§ 2:1 American Seating Co. v. USSC Group, Inc.

That the inventors revealed a 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 the observers and the inventor, an understanding of confidentiality can be implied.

In American Seating Co. v. USSC Group, Inc.,1 also discussed in section 10:4, American Seating was the owner of the patent-in-suit drawn to a wheelchair restraint system for use in mass transit vehicles. The system used belts and moving arms to hold wheelchairs in place on buses and trains. USSC's accused products were the VPRo I and VPRo II.

The district court held that neither of USSC's accused products literally infringed the patent-in-suit. In a first appeal, the Federal Circuit reversed as to the VPRo I and affirmed as to the VPRo II. The Federal Circuit remanded the case to the district court to determine whether the VPRo I literally infringed and whether the VPRo II infringed under the doctrine of equivalents. After remand, the district court granted American Seating summary judgment that the VPRo I literally infringed. A jury then considered whether the patent-in-suit was invalid because of having previously been “in public use,” and whether the VPRo II infringed under the doctrine of equivalents. The jury concluded that USSC had failed to show that the patent-in-suit

was invalid for prior public use. Although not clear from the opinion, it appears that the jury also concluded that the VPRo II did not infringe under the doctrine of equivalents. The jury awarded $2,326,129 in lost profits.

With respect to the issue of prior public use, the filing date was December 2, 1996, and the “critical date” was thus December 2, 1995. The inventors were James Ditch and Freridoun Razavi. Ditch worked as the Director of Maintenance for the Long Beach Transit Authority. Razavi worked as a bus retrofitter. In 1994, they developed an initial prototype of the invention. As they improved on the invention, evolving prototypes were installed on out-of-service buses, and feedback was solicited from friends and colleagues. That apparently was what USSC relied on in urging that the invention had been placed “in public use.”

The Federal Circuit disagreed, stating 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 the observers and the inventor, an understanding of confidentiality can be implied.”

The Federal Circuit commented that the jury was entitled to conclude that Ditch, Razavi, and the limited number of people permitted to view the tie-down restraint system prototype shared a general understanding of confidentiality. Ditch had demonstrated the prototype on an out-of-service bus, solicited feedback, and removed the invention to store under his control. There was no evidence that the prototype was placed in service before December 1995, and no evidence that an unrestricted number of people unconnected with the development of the invention observed the invention in use.

2. *Id.* at 1268.
§ 2:2 Atlanta Attachment Co. v. Leggett & Platt, Inc.

Control by the inventor is key to experimental use. Offer to mass produce prototypes is inconsistent with experimental use. Concurrence: Experimental use may continue after reduction to practice.

In Atlanta Attachment Co. v. Leggett & Platt, Inc.,

Sealy had requested that Atlanta Attachment, a commercial sewing machine manufacturer, create an automatic gusset ruffler machine. The companies agreed that, if successful, Sealy would attempt to obtain a patent on the machine, and Atlanta Attachment would sell such machines only to Sealy. The companies executed an agreement obligating Atlanta Attachment to maintain the machine in confidence, but not vice versa. However, there was testimony at trial that the parties had a mutual oral confidentiality agreement.

The “on sale” issue concerned one of four prototypes that Atlanta Attachment had provided to Sealy. Each of those prototypes embodied improvements over the earlier prototype.

The patent-in-suit issued from an application filed on August 15, 2002, which claimed domestic priority to a provisional application filed on March 5, 2002. The “critical date” was thus March 5, 2001. The first two prototypes were delivered to Sealy for testing at a secure facility in April 1999 and January 2000, respectively. Those prototypes were accompanied by quotations for sales of subsequent machines. Sealy tested the machines, but made no commercial products. Those prototypes required significant operator control. Sealy returned the prototypes to Atlanta Attachment with oral comments regarding necessary additional requirements. Those prototypes apparently did not meet the terms of the asserted claim, and were not part of the “on sale” issue.

The “on sale” issue concerned a third prototype that apparently met the terms of the asserted claim. Atlanta Attachment sent Sealy a quotation for that third prototype in September 2000, and additional sales orders were created on November 30, 2000, and February 5, 2001—well before the critical date. Sealy paid the last invoice. Sealy personnel inspected the prototype at Atlanta Attachment’s facilities on February 7, 2001.

Atlanta Attachment delivered a fourth prototype to Sealy on April 10, 2001, after the critical date, and refunded Sealy’s money for the third prototype. The fourth prototype, according to the opinion, was “substantially similar” to the third prototype. Sealy conducted additional experiments on that prototype until June 2001, leading to further improvements.

Sealy, however, decided not to purchase machines from Atlanta Attachment. Atlanta Attachment then filed a provisional application on March 5, 2002, which ultimately issued as the patent-in-suit on December 28, 2004.

Atlanta Attachment sued Leggett & Platt for infringement, accusing Leggett & Platt’s GPT-1000 series sewing machines.

Leggett & Platt asserted, inter alia, invalidity under section 102(b). The district court found that the accused machines infringed, and that the asserted claim was not invalid because (1) the three earlier prototypes had not reduced the limitations of claim 32 to practice, and (2) those prototypes constituted experimental uses. On appeal, the Federal Circuit reversed, concluding that the asserted claim was invalid.

The Federal Circuit reasoned that under Pfaff v. Wells Elecs., the commercial-offer prong required that the offer be sufficiently definite that another party could make a binding contract by simple acceptance, assuming consideration.

With respect to “experimental use,” the Federal Circuit considered whether the primary purpose of the offers and sales was to conduct experimentation.

The Federal Circuit reasoned that the third prototype had been “sold” to Sealy even though the machine had not been delivered to Sealy, because Atlanta Attachment sent Sealy an invoice for the machine (an offer) and Sealy paid for the machine (an acceptance).

Atlanta Attachment urged that the sales of prototypes to Sealy were “experimental,” to determine whether the machines met Sealy’s requirements. The Federal Circuit rejected that argument, noting that “experimentation conducted to determine whether the invention would suit a particular customer’s purposes does not fall within the experimental use exception,” and focused only on Atlanta Attachment’s actions (and not Sealy’s experiments) in determining whether the machine was suitable to the purpose of the invention. Also, the Federal Circuit noted that Atlanta Attachment did not retain control over the prototypes when they were in Sealy’s possession and held that to be dispositive. According to the Federal Circuit, Sealy’s experiments with the prototypes were “immaterial” because “the experimental use exception only concerns the actions of the inventors and their agents,” and Sealy was not under the inventors’ control.

Additionally, the Federal Circuit held that the “commercial offer” prong of Pfaff was met because Atlanta Attachment had presented a quotation to Sealy for fifty production units before the critical date of March 5, 2001. The quotation could become a contract with the signature of a purchasing entity, and thus constituted an offer for sale that could not avoid the on-sale bar via the experimental use exception.

According to the court, “once there has been a commercial offer, there can be no experimental use exception.” The court also concluded that the third prototype constituted a reduction to practice of the asserted claim, and therefore the claimed invention was “ready for patenting.”

The district court had concluded that production of the fourth prototype indicated that the third prototype was not suitable for its intended purpose—and therefore had not been actually reduced to practice. The Federal Circuit concluded that was error, noting that “an invention can be considered reduced to practice ‘even though it may later be refined or improved.’” The court noted that the deficiencies in the third prototype did not prevent reduction to practice of the invention actually claimed.

5. Atlanta Attachment Co., 516 F.3d at 1366.
6. Id. (citations omitted).
Circuit Judge Prost concurred, with Circuit Judge Dyk joining that concurrence. The point of the concurrence was “the applicability of the experimental use doctrine to the two prong test for the on-sale bar.” As an example of the court’s continuing failure to clearly delineate “on sale” issues from “in public use” issues, Judge Prost wrote:

The Supreme Court’s decision in *Pfaff v. Wells Electronics, Inc.* redefined our test for the on-sale bar and affected how the experimental use doctrine applies to alleged instances of invalidating prior use. Without considering these issues in a comprehensive manner in future cases, we will never escape from the confused status of our current caselaw.

### Cohesive Technologies, Inc. v. Waters Corp.

Finding a lack of obviousness does not preclude a finding of anticipation.

In *Cohesive Technologies, Inc. v. Waters Corp.*, also discussed in sections 6:6, 7:3, 9:2 and 10:7, Cohesive charged Waters with infringing its two patents-in-suit drawn to high-performance liquid chromatography (HPLC), that is, a process for separating, identifying, and measuring compounds contained in a liquid.

During a first trial, Waters alleged and presented evidence that the claims of one of the patents-in-suit were anticipated by seven prior art references—and also that the claims would have been obvious in light of those references individually and in various combinations.

As the trial was concluding, the district court indicated at a charge conference that it did not intend to charge the jury on anticipation. The district court reasoned that (1) the defendant’s contentions were “best captured by obviousness,” rather than anticipation, (2) there was no proof of anticipation in any of the prior art publications, and (3) Waters’s anticipation case was “iffy,” and the court’s “gut response is

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that none of [the prior art references] are winners.” The district court also reasoned that refusing to charge the jury on anticipation would not cause “any real harm to the defendant” and would not “make very much difference because it comes in obviousness.” The district court then directed a verdict of no anticipation. The jury concluded that the first patent-in-suit had been infringed, and had not been proven invalid for obviousness. On appeal, the Federal Circuit panel majority reversed.

The panel majority reasoned that “[d]espite the often quoted maxim that anticipation is the ‘epitome of obviousness,’ . . . novelty under 35 U.S.C. § 102 and nonobviousness under 35 U.S.C. § 103 are separate conditions of patentability and therefore separate defenses available in an infringement action.” The panel majority noted 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. The tests for anticipation and obviousness are different.”

Specifically, the panel majority reasoned that (1) “[o]bviousness can be proven by combining existing prior art references, while anticipation requires all elements of a claim to be disclosed within a single reference,” (2) “obviousness requires analysis of secondary considerations of nonobviousness, while secondary considerations are not an element of a claim of anticipation,” and (3) “although anticipation can be proven inherently, proof of inherent anticipation is not the same as proof of obviousness.” Thus, according to the panel majority, “it does not follow that every technically anticipated invention would also have been obvious,” quoting Judge Miller’s concurring opinion in a 1982 CCPA case, In re Fracalossi.

Circuit Judge Mayer dissented. Judge Mayer agreed that the tests for obviousness and anticipation were distinct, and that a district court should not refuse to submit the issue of anticipation to a jury simply because the accused infringer was also asserting an obviousness defense.

8. Id. at 1363 (quoting district court).
9. Id. (quoting district court).
10. Id. at 1364.
11. Id.
12. Id.
Citing cases, Judge Mayer contended that the Federal Circuit (and the CCPA) in a “long line of precedent” had always considered anticipation as the “epitome of obviousness,” and he offered this example: “Every apple is a fruit. It follows, therefore, that if something is not a fruit, it cannot be an apple. Similarly, since our precedent makes clear that every anticipated claim is obvious, it follows that if a claim is not obvious, it cannot be anticipated.”

The panel majority responded that none of the cases cited by the dissent actually hold that the “epitome” maxim precluded a jury from finding a patent invalid under section 102 simply because it was nonobvious under section 103, and it offered its own example:

Consider, for example, 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 resolved 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. While the prior art alchemy textbook inherently anticipates the claim under § 102, the claim may not be said to be obvious under § 103.

§ 2:4 Finisar Corp. v. DirecTV Group, Inc.

Court employs “doctrine of the last antecedent” in interpreting reference and concludes that the reference anticipates.

In Finisar Corp. v. DirecTV Group, Inc.,14 also discussed in sections 4:3 and 6:10, Finisar’s patent-in-suit was drawn to systems and methods for scheduling transmission of “database tiers” upon specific demand or at specific times and rates of repetition. The system anticipated likely, that is, more popular, subscriber requests and broadcast those programs.

to users on an announced schedule at regular intervals. The system divided the information database into “different tiers” based on likely popularity. The patent-in-suit analogized the invention to accessing information in a large library:

Having “access” to all those books every single day does not mean [sic] that a user can receive them all in one day, nor does it mean that all the users can receive all the books in a single day. Nevertheless, each particular book (file or program) is available on relatively short notice, and having access to such a large collection of books (data) is still very useful.

The district court concluded on summary judgment that several means-plus-function claims were invalid as being indefinite because the specification did not disclose any “corresponding structure” (that is, software algorithms or descriptions) for performing the claimed functions. The remaining claims were tried, and a jury returned a verdict that the asserted claims were valid and infringed. The jury awarded $78.9 million in reasonable royalty damages. The district court denied Finisar’s request for injunctive relief, imposed a compulsory license, and awarded $25 million in enhanced damages.

On appeal, the Federal Circuit concluded that the district court’s claim construction of two terms was erroneous and that one claim was invalid as being anticipated (which affected other claims as well), and remanded for a new trial on infringement and validity.

Regarding anticipation, DirecTV asserted that a textbook on “videotex system architecture” anticipated claim 16.

Finisar’s expert testified that the book did not teach the claimed “scheduling,” “transmitting,” and “dividing” steps. The Federal Circuit viewed the book as teaching division of information into tiers, transmission of information, and scheduling of transmissions. According to the court, anticipation depended on “the interrelationships between these elements” and that to anticipate, the textbook had to disclose division of the portions of the database into tiers and further assignment of scheduled transmission times to the selected portions within the tiers.

The court looked to the book “in some detail,” particularly a section entitled “Transmission Sequence” in chapter 10, “Databases for Videotex.” The book explained:
On-line and off-line reception can be mixed by controlling the repetition rate of transmitted pages. A few hundred pages of general interest can be repeated in a short cycle, whereas less important or less frequently updated pages are inserted in hourly or even daily intervals into specific slots in the cycle, or according to a predetermined schedule. This . . . permits for the dissemination of very large amounts of data. [Emphasis and ellipsis by the court]

According to the court, that section disclosed two tiers with two corresponding repetition rates. However, because “or according to a predetermined schedule” appeared at the end of the sentence and after a comma, the court asked whether the jury could have reasonably construed that phrase as an alternative only for the “less important or less frequently updated pages,” rather than both tiers of pages mentioned in the preceding clauses.

The court remarked that “[a]lthough this reading of the reference seems a stretch even at first blush,” in an analogous situation in Anhydrides & Chemicals, Inc. v. United States,15 general principles of English grammar were used for the “proposition that ‘[r]eferential and qualifying words and phrases, where no contrary intention appears, refer solely to the last antecedent, which consists of ‘the last word, phrase, or clause that can be made an antecedent without impairing the meaning of the sentence’” for purposes of statutory construction.” That “grammatical guideline” was referred to as “the doctrine of the last antecedent.” In contrast, the court said, when a modifier is set off from a series of antecedents by a comma, the modifier should be read to apply to each of those antecedents.

According to the Federal Circuit, to avoid “slipping into a realm of ambiguity,” the court imputed an understanding of English grammar and usage to the jury. The court also consulted the overall context of the passage from the point of view of one of ordinary skill in the art, and concluded that the passage discussed and explained the entire hierarchy of data, not just isolated portions of the database. The Federal Circuit interpreted the comma before “or according to a predetermined schedule” as indicating a reference to the general interest pages and the less frequently updated pages, and concluded that the passage

meant that either tier of data repeated at particular intervals or according to a predetermined schedule. The court found further support for that interpretation elsewhere in the book.

The court thus concluded that separate passages in the book disclosed the interrelated requirements of claim 16’s “scheduling,” “transmitting,” and “dividing” steps. Because Finisar did not dispute that the textbook disclosed the other limitations of claim 16, the Federal Circuit concluded that the textbook anticipated claim 16. Accordingly, the court reversed the district court’s denial of DirecTV’s JMOL motion for invalidity on the basis of anticipation of claim 16. The court concluded that it could not determine whether the other claims were anticipated. The court vacated the district court’s denial of DirecTV’s JMOL as to those claims as well, and remanded the issue to the district court.

§ 2:4.1 The Claim at Issue in This Case

Claim 16 called for:

16. An information transmission method comprising the steps of:

[A] storing an information database on one or more memory devices;

[B] generating and storing on said memory devices a hierarchically arranged set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and embedding said indices in said information database;

[C] scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times;

[D] transmitting a stream of data packets containing said selected portions of said information database in accordance with said scheduled transmission times;

[E] said scheduling step including dividing said selected portions of said information database into a prioritized set of tiers, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate, wherein the repetition rate for higher priority tiers is higher than the repetition rate for lower priority tiers;
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[F] receiving said transmitted stream of data packets at subscriber stations; at each subscriber stations [sic], storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets; and

[G] at each subscriber station, downloading into a memory storage device those of said received data packets which match said specified set of requested data packets. [Bracketed letters added.]

§ 2:5 Impax Laboratories, Inc. v. Aventis Pharmaceuticals, Inc.

A prior art reference must enable one of ordinary skill in the art to make the invention without undue experimentation. “Undue experimentation” considers (1) the quantity of experimentation, (2) the amount of direction or guidance present, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

In Impax Laboratories, Inc. v. Aventis Pharmaceuticals, Inc. (Impax II),16 Impax filed an ANDA to manufacture and sell riluzole tablets for the treatment of patients with amyotrophic lateral sclerosis (ALS). Impax also filed a declaratory judgment action seeking a finding that Aventis’s patent drawn to the use of riluzole to treat ALS was unenforceable for inequitable conduct and invalid as anticipated. The district court, after a bench trial, concluded that (1) Impax had not shown that Aventis’s patent had been procured through inequitable conduct, and (2) the prior art asserted to anticipate the claims of Aventis’s patent was not enabling.

In a first appeal, the Federal Circuit affirmed the finding of no inequitable conduct, but reversed and remanded the anticipation issue. After remand, the district court concluded that the asserted reference was nonenabling. On appeal, the Federal Circuit affirmed.

Impax asserted that claims 1-5 of Aventis’s patent-in-suit were anticipated by another patent owned by Aventis—the ’940 patent—and a corresponding French application from which the ’940 patent claimed priority. The ’940 patent disclosed a “formula I” family of compounds useful in treating medical conditions such as ALS, and the French application had a similar disclosure.

Impax argued that formula I disclosed a class of compounds, including riluzole, and that such compounds were useful in treating ALS. Accordingly, Impax contended, claims 1-5 were anticipated. Aventis urged, inter alia, that the ’940 patent was nonenabling.

The district court in the first appeal agreed that formula I included riluzole, but concluded that one of ordinary skill in the art would not have recognized riluzole’s effectiveness in treating ALS, and thus, according to the district court, the ’940 patent did not anticipate claims 1-5, apparently on the basis of nonenablement. The district court reached the same conclusion vis-à-vis the French application.

The panel majority, in the first appeal, citing Rasmusson v. Smith-Kline Beecham Corp., noted that “[t]he enablement requirement for prior art to anticipate under section 102 does not require utility, unlike the enablement requirement for patents under section 112.” The panel majority also noted that in Amgen Inc. v. Hoechst Marion Roussel, Inc. (Amgen II), the court had held that “when, as here, an accused infringer asserts that either claimed or unclaimed material in a prior art patent anticipates patent claims asserted against it, the infringer is enti-

19. Impax Labs., Inc., 468 F.3d at 1381.
ttled to a presumption that the allegedly anticipating material is enabled.”

The panel majority in the first appeal noted that the ’940 patent disclosed formula I, which included riluzole; disclosed that the compounds of formula I were useful in treating conditions such as ALS; and provided some dosage information. The district court in the first appeal, however, had held that the ’940 patent was not enabling because there was no evidence that riluzole would be “effective.” The panel majority in the first appeal reasoned that under *Rasmusson*, proof of efficacy was not required for a prior art reference to be enabling for purposes of anticipation. Rather, according to the panel majority, the question was whether the ’940 patent described the claimed invention sufficiently to enable one of ordinary skill in the art to practice the invention. The panel majority accordingly concluded that a remand was necessary.

Claim 1 of Aventis’s patent was a method claim:

1. A method for treating a mammal with amyotrophic lateral sclerosis, comprising the step of administering to said mammal in recognized need of said treatment an effective amount of 2-amino-6-(trifluoromethoxy)benzothiazole or a pharmaceutically acceptable salt thereof.

Circuit Judge Rader noted in his concurrence in the first appeal that formula I covered a large number of compounds, and the “’940 patent does not disclose the necessary suggestion to enable an artisan to look to riluzole for the treatment of ALS in the first place.” Judge Rader found it difficult to see how a process could be enabled by disclosure of a formula that included the claimed compound as only one of a number of compounds generally disclosed as being useful in the treatment of conditions such as ALS.

And, with respect to the French application, which had not separately identified riluzole by name, the panel majority in the first appeal explained that riluzole was just one of hundreds of compounds included in formula I. “When a reference discloses a class of compounds, that is, a genus, a person of ordinary skill in the art should be able to ‘at once envisage each member of th[e] . . . class’ for the indi-

21. *Impax Labs., Inc.*, 468 F.3d at 1382.
individual compounds, that is, species, to be enabled. If the members cannot be envisioned, the reference does not disclose the species and the reference is not enabling.” The Federal Circuit concluded that with the large number of compounds included in formula I and no specific identification of riluzole by the '624 application, the '624 application did not disclose riluzole and thus could not enable treatment of ALS with riluzole.

After remand, the district court concluded that excessive experimentation would have been required to practice the invention. The district court found, inter alia, that formula I disclosed hundreds or thousands of compounds and several diseases, and that the '940 patent did not teach that riluzole per se could be used to treat ALS. The district court also found that the dosage information in the '940 patent was broad, and was not specific to any of the large number of compounds covered by formula I. The district court also noted that the '940 patent did not contain any working examples. The district court accordingly held that the '940 patent did not contain an enabling disclosure, and thus did not qualify as an anticipatory reference vis-à-vis claims 1-5. On appeal, the Federal Circuit affirmed.

The Federal Circuit reiterated that “[i]n order to anticipate a claimed invention, a prior art reference must enable one of ordinary skill in the art to make the invention without undue experimentation,” and, citing In re Wands, that “[t]he ‘undue experimentation’ component of that equation examines (1) the quantity of experimentation; (2) the amount of direction or guidance present; (3) the presence or absence of working examples; (4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability or unpredictability of the art; and (8) the breadth of the claims.” The Federal Circuit concluded that the district court had properly weighed the Wands factors in concluding that the '940 patent did not contain an enabling disclosure.

22. Id. at 1383 (emphasis and alterations by the court) (quoting In re Petering, 301 F.2d 676, 681 (C.C.P.A. 1962)).
23. Impax II, 545 F.3d at 1314.
That a system would not work on a commercial scale does not preclude a conclusion that the invention was “ready for patenting.” There need not be a profit to qualify as a sale under section 102(b).

In In re Cygnus Telecommunications Technology, LLC, Patent Litigation, 26 Cygnus appealed from the district court’s grant of summary judgment that its two patents-in-suit were invalid under section 102(b) as having been placed “on sale” before the critical date. On appeal, the Federal Circuit affirmed.

The earliest effective filing date of the patents-in-suit was April 24, 1992. Thus, the critical date was April 24, 1991.

In essence, the invention of Cygnus’s two patents-in-suit took advantage of lower international calling rates from the United States to foreign countries than from foreign countries to the United States. In the late 1980s, calling a foreign country from the United States was less expensive than calling the United States from a foreign country. James Alleman, the inventor, founded Paragon Services International, Inc., in 1988 to attempt to take advantage of the cost differential through a “black box” system: A user in a foreign country would purchase a dedicated line to a black box in the United States. A foreign user would place a call to that black box and then terminate the call. The black box would then call the user back using the less expensive U.S. billing rate, the user could then dial the desired number, and the black box would then bridge the call. The result was that the foreign user could take advantage of the lower U.S.-initiated rates. The problem was that the system required a dedicated line for each foreign user and was expensive to maintain.

Alleman subsequently developed a system using a computer to replace the black box. In a prototype using a “386” computer instead of a dedicated line for each user, the system identified users by refer-
ring to the international telephone numbers that were used to initiate the calls. The system used the telephone number passed along by the telephone company’s exchange server to search its database and identify the foreign user. The system then terminated the call, and called the user back. The user then entered the desired number and the system would bridge the calls.

In developing the system, Alleman worked with several foreign individuals who first used the black box system and subsequently the 386 system. Alleman referred to those individuals as “beta testers.” Nevertheless, those individuals were regularly invoiced for their telephone calls.

Paragon’s successor-in-interest was Cygnus, which brought several suits against a number of telecommunications companies that were consolidated in the Northern District of California. The district court concluded that the two patents-in-suit were invalid under the “on sale” bar of section 102(b). The Federal Circuit agreed.

The opinion is not entirely clear, but apparently Alleman stated in a declaration to the PTO that “I reduced to practice the invention of the claims before June 27, 1990,” thus satisfying the “readying for patenting” prong of the Pfaff analysis. The opinion does not explain why that declaration was filed. In any event, Cygnus urged on appeal that it should not be bound by Alleman’s declaration because (1) the PTO did not rely on that declaration, (2) the declaration had “internal inconsistencies,” and (3) a later Alleman declaration and deposition explained why statements made in that declaration were mistaken.

It seems that for the most part, Cygnus’s response to the defendants’ motion for summary judgment failed because of a lack of proof. In the district court, Cygnus filed an Alleman declaration with exhibits, including a portion of an invoice from Dialogic Corporation dated March 5, 1990; six pages from Alleman’s deposition; and a deposition of another individual. The Federal Circuit concluded that none of those materials created a genuine issue of material fact contradicting Alleman’s earlier declaration that the invention had been reduced to practice before June 27, 1990. The Federal Circuit concluded that Cygnus was accordingly bound by Alleman’s earlier declaration.

Cygnus also argued that the 386 system was not “ready for patenting” because it would not work on a commercial scale. The Federal Circuit rejected that argument, noting that the 386 system was
a functional computerized callback device as of June 1990, by Alleman’s own admission, and, because the 386 system embodied the claims, sales relating to its use could constitute an invalidating commercial sale, regardless of the state of development of the larger Call Interactive system.

The Federal Circuit also rejected Cygnus’s argument that the individuals using the system were merely “beta testers” and that the system was then in “experimental use.” The court noted that the district court had based its findings on Alleman’s 2006 deposition, which included admissions that Alleman charged users “on a per minute basis” and that he billed them each month for the calls they made.

The Federal Circuit further rejected Cygnus’s argument vis-à-vis experimental use as a matter of law, explaining that “‘experimental use cannot occur after a reduction to practice.’”

§ 2:7  In re Omeprazole Patent Litigation (Omeprazole Second Wave)

The two-prong Pfaff analysis applies to “in public use” cases: “experimental use” cannot negate “public use” after an invention is reduced to practice. Under Pfaff, “ready for patenting” may be shown “by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.” Alleging reduction to practice requires showing that an invention has been tested to determine whether it works for its intended purpose.

In In re Omeprazole Patent Litigation (Omeprazole Second Wave),28 also discussed in sections 3:8 and 12:14, Astrazeneca AB, Aktiebolaget Hassle, KBI-E, Inc., KBI, Inc., and Astrazeneca LP (collectively, Astra),

27. Id. at 1356 (quoting Cont’l Plastic Containers v. Owens Brockway Plastic Prods., Inc., 141 F.3d 1073, 1079 (Fed. Cir. 1998)).
owned several patents related to formulations of omeprazole, the active ingredient in Prilosec®®, a commercially successful drug used to treat heartburn and acid-related gastrointestinal disorders. Several generic drug manufacturers filed ANDAs to produce and market generic versions. Astra filed a number of suits for infringement and those suits were consolidated by the Panel on Multidistrict Litigation in the Southern District of New York. The district court divided the consolidated cases into two “waves” for discovery and trial. The “first wave” resulted in a nonprecedential opinion and a precedential opinion, In re Omeprazole Patent Litigation. In the “second wave” cases, the district court granted Mylan Laboratories, Inc., a judgment of noninfringement, which was affirmed by the Federal Circuit in a nonprecedential opinion. The remaining defendants were Apotex Corp., Apotex, Inc., and Torpharm, Inc. (collectively, Apotex) and Impax Laboratories, Inc. This consolidated appeal was from the district court’s judgment that Apotex and Impax infringed the asserted claims of two patents-in-suit. Impax urged, inter alia, that the asserted claims were invalid under section 102(b) as having been placed “in public use” through certain clinical trials.

The applications maturing into the two patents-in-suit were filed on April 20, 1987, and therefore the “critical date” was April 20, 1986. Prior to that date, Astra had conducted four large clinical studies regarding the safety and efficacy of its formulations. Those studies were conducted in order to obtain FDA approval. Impax argued that those studies constituted “public use” prior to the critical date—and therefore rendered the asserted claims invalid. According to the Federal Circuit, the district court rejected that argument on two grounds: (1) that the clinical studies constituted experimental uses, which negated any public use, and (2) that the formulations were not “ready for patenting” until after the studies were completed.

With respect to whether the clinical trials constituted “in public use,” the district court noted that Astra’s licensee, Merck, had conducted all of the clinical trials in the United States, with the exception of one clinical trial that was conducted by one of Astra’s subsid-

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iaries (Hassle). The district court found that the clinical trials were closely controlled and monitored, all information and communication between Astra and Merck was confidential, all clinical investigators were told that the information given them was confidential, and all were required to sign protocols that mandated the investigators to maintain that confidentiality. The district court rejected Impax’s argument that failure to require patients to sign confidentiality agreements was fatal, noting inter alia that the patients were not aware of the formulations being tested.

On appeal, however, the Federal Circuit categorically concluded that “it is clear from this court’s case law that experimental use cannot negate a public use when it is shown that the invention was reduced to practice before the experimental use,”30 citing Cargill, Inc. v. Canbra Foods, Ltd.;31 Allen Engineering Corp. v. Bartell Industries, Inc.;32 New Railhead Manufacturing, LLC v. Vermeer Manufacturing Co.;33 EZ Dock, Inc. v. Schafer Systems, Inc. (Judge Linn’s concurring opinion);34 Zacharin v. United States;35 Baxter International, Inc. v. COBE Laboratories, Inc.;36 and Atlanta Attachment Co. v. Leggett & Platt, Inc. (Judge Prost’s concurring opinion).37 The Federal Circuit nevertheless affirmed, based on the district court’s factual determination that the claimed formulation was not ready for patenting until after the clinical studies were completed.

The Federal Circuit reasoned that Pfaff described two ways for a party to show that an invention was ready for patenting before the critical date of section 102(b): (1) by proof of reduction to practice before the critical date; or (2) by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.

30. Omeprazole Second Wave, 536 F.3d at 1372.
32. Allen Eng’g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1354 (Fed. Cir. 2002).
There was no dispute that the Phase III formulation had been produced before the trials. According to the Federal Circuit, though, the existence of the formulation did not establish that the Astra scientists had determined that the invention would work for its intended purpose.

The Federal Circuit thus concluded that Impax had chosen to argue that the formulations had been actually reduced to practice. Omeprazole inhibited gastric acid secretion, but also degraded rapidly in gastric acid. Initially, an enteric coating was used to protect the omeprazole, but such coatings contained acidic compounds which caused the omeprazole to decompose in storage. Astra scientists then added alkaline reacting compounds (ARCs) to add storage stability, but ARCs compromised the enteric coating. The inventors solved the problem by adding an inert subcoating.

Omeprazole had first been created by Astra scientists in 1979. Research then turned to developing an oral dosage form. In first Phase I human trials, Astra used a buffered suspension to stabilize the omeprazole in the stomach, and also added an enteric coating. After various formulations, the inventors proceeded to Phase II clinical trials using an enteric coating of hydroxypropyl methylcellulose phthalate combined with ARCs and other excipients. The Phase II formulation, however, did not provide sufficient gastric acid resistance and shelf life. Research then turned to using a water-soluble subcoating which became the formulation used in Phase III clinical trials. Those trials revealed gastric acid resistance coupled with three years of shelf stability.

Impax argued that the research leading up to the Phase III clinical trials demonstrated that the Phase III formulation provided gastric acid resistance and superior shelf life. The district court disagreed and found that the Phase III formulation was not actually reduced to practice before the clinical trials, because at that time the inventors believed only that the formulation “might solve the twin problems of in vivo stability and long-term storage.” The district court found that “the Phase III formulation still required extensive clinical testing and real-time stability testing to determine whether it could treat gastric acid diseases safely and effectively.” In short, the district court concluded that the claimed invention had not been actually reduced to practice until after the in vivo Phase III clinical trials. The Federal Circuit agreed.
§ 2:8  Kyocera Wireless Corp. v. International Trade Commission

A “single” reference does not include several industry standards published over a period of time.

In Kyocera Wireless Corp. v. International Trade Commission,38 Broadcom filed a complaint with the ITC alleging that Qualcomm’s chips infringed three of its patents. The ITC determined that the chips did not infringe two of the patents-in-suit, and that determination was the subject of a separate appeal. The ITC determined that Qualcomm had infringed the third patent drawn to “[o]ne or more circuits adapted for use in a mobile computing device,” for example, cell phones, having the ability to communicate with various wireless networks and operate in a reduced power mode to extend battery life. The ITC further held that Broadcom’s patent was not anticipated by several items of asserted prior art, and issued a limited exclusion order (LEO) excluding handheld wireless communications devices containing Qualcomm’s chips. Kyocera and other wireless device manufacturers were subject to the LEO because they purchased and incorporated Qualcomm chips into their mobile wireless devices, which were imported into the United States—although they were not named respondents. AT&T and other wireless network carriers that deployed networks which depended on devices that included Qualcomm’s chips were also subject to the LEO—although they also were not named respondents. The Federal Circuit affirmed the findings of infringement and lack of anticipation, but reversed the grant of the LEO to the extent that it covered nonnamed respondents.

Qualcomm asserted, inter alia, that the asserted claims were anticipated by a collection of technical specifications known as the Global System for Mobile Communications (GSM) standards. Those standards were a set of specifications for a second generation (2G) mobile network promulgated by the European Telecommunications Standards Institute (ETSI).

The ITC determined that (1) the GSM standard was not a “printed publication” under section 102(b) because it was not “publicly available,” and (2) the GSM standard did not constitute a single reference for purposes of anticipation under section 102(b). The Federal Circuit rejected the first argument, finding that the standard had been widely distributed before the critical date of the patent-in-suit.

The Federal Circuit agreed, however, that the GSM standard did not constitute a “single” printed publication. There were eleven separate GSM specifications. Qualcomm argued that the different specifications were like chapters in a book and functioned as a single reference that was too voluminous to bind into a single volume.

The Federal Circuit reiterated that “[t]his court requires that in order to anticipate a claim, ‘a single prior art reference must expressly or inherently disclose each claim limitation.’” 39 Here, the Federal Circuit noted that the various specifications were authored by different subsets of authors at different times and included “hundreds of individual specifications drafted by approximately ten different subgroups, each with its own title and separate page numbering,” and that “[e]ach specification, though part of the greater GSM standard, stands as a separate document in its own right.” The Federal Circuit noted that “Qualcomm’s witness—admittedly one of the most knowledgeable people in the world about the operation of GSM—testified that she had not read the entire standard and did not know of any person who had read the entire standard.” Under those circumstances, the Federal Circuit concluded that the GSM standard was several prior art references with separate dates of creation, rather than a single prior art reference.

The Federal Circuit also rejected Qualcomm’s argument that the several GSM specifications incorporated the other specifications by reference. The court reiterated that under Advanced Display Systems, Inc. v. Kent State University, 40 “in order for one document to incorporate another document by reference, the incorporating document must identify the incorporated document with detailed particularity, clearly

39.  Id. at 1351 (quoting Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1334 (Fed. Cir. 2008)).
indicating the specific material for incorporation." 41 Here, the Federal Circuit found that, at most, each relevant GSM specification identified itself as a part of the greater GSM standard and at times cross-referenced other specifications, but that "[t]his vague referencing practice is hardly sufficient to meet this court's legal requirements for incorporation."

§ 2:9  

**Inherent anticipation may be found even though it was questionable whether prior art device could be operated in a manner to anticipate.**

In *Leggett & Platt, Inc. v. VUTEk, Inc.*, L&P's patent-in-suit was drawn to a method and apparatus for ink jet printing on rigid panels. The patent illustrated an ink jet printing machine that included a stationary frame with a front end into which the panel could be loaded onto the belt of a conveyor system which carried the panel through the machine. An ink jet printing station and one or more curing or drying stations, such as UV light curing stations and/or heating stations, were placed along the route of travel. A print head cartridge was mounted on a bridge, and included one or more sets of ink jet print heads.

The patent-in-suit disclosed the use of a "UV curable" ink, which could be cured by exposure to a "cold UV" radiation source without deforming the substrate. The cold UV radiation source "froze" the ink to prevent spreading, wicking, etc.

The district court held a *Markman* hearing and subsequently granted VUTEk's motion for summary judgment that the asserted claims were anticipated by one of VUTEk's patents and that dependent claims were rendered obvious in light of that patent and another patent. On appeal, the Federal Circuit affirmed.

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41. *Kyocera Wireless Corp.*, 545 F.3d at 1352.
VUTEk’s patent disclosed a printer carriage that included one or more ink jet printheads and one or more UV radiation sources for curing the ink. The UV radiation sources included light emitting diodes (LEDs), which the parties agreed constituted “cold UV.” The patent taught that the UV radiation sources should emit sufficient energy to “set” the ink when the carriage was operating at the fastest possible speed. The parties agreed that “setting” the ink as disclosed in VUTEk’s patent was the same as “freezing” the ink in the patent-in-suit.

VUTEk’s patent disclosed that the UV sources would emit radiation over an area wider than the printheads to ensure that the ink was not underexposed. Thus, in some cases, ink was exposed to radiation twice, and sometimes five times. VUTEk’s patent explained that the effective of multiple passes was not linearly additive.

L&P asserted that VUTEk’s patent did not anticipate because it did not teach that the LEDs were “effective to impinge sufficient UV light on the ink to substantially cure the ink.” The district court had held that “substantially cure” meant “cured to a great extent or almost completely cured.”

The Federal Circuit concluded that the LEDs would cure the ink 75%-80% when the carriage was operated at its slowest speed and passed over the ink five times. According to the court, “[a] reasonable mind might well find 75%-80% cured to be ‘substantially cured’ and, thus, would conclude that the disclosed LEDs are effective to cure the ink to a great extent.” However, under the summary judgment standard, the court could not say as a matter of law that 75%-80% cured was “cured to a great extent or almost completely cured.”

The Federal Circuit did, however, conclude as a matter of law that VUTEk’s patent inherently disclosed LEDs that are “effective to impinge sufficient UV light on the ink to” cure the ink to a great extent, and that the patent would anticipate by inherency if its LEDs necessarily were “effective to impinge sufficient UV light on the ink to substantially cure the ink.”

The Federal Circuit reasoned that Figs. 7A and 7B and the accompanying disclosure in the specification taught that if a UV radiation source was passed over the ink at a slower speed and/or multiple times, ink curing would increase. The Federal Circuit concluded that while VUTEk’s patent may not expressly disclose that the LEDs cure the ink to a great extent, it inherently disclosed LEDs that were “effective to” do so.
L&P argued, however, that LEDs were unable to produce sufficient radiation to cure ink at the time of VUTEk’s patent, and presented expert testimony in support. The Federal Circuit found that testimony unpersuasive. L&P also pointed to the testimony of VUTEk’s expert, who admitted that LEDs were not “practical” for use in printers at the time because they were too expensive. The Federal Circuit responded that “[t]he fact that a technology may be impractical does not undermine an otherwise anticipatory disclosure.”

§ 2:10 Net MoneyIN, Inc. v. Verisign, Inc.

A reference must disclose within its four corners not only all of the limitations claimed, but also all of the limitations arranged or combined in the same way as recited in the claim in order to anticipate.

Net MoneyIN, Inc. v. Verisign, Inc.,43 also discussed in section 6:18, involved systems developed by Ogram, an inventor and patent attorney, for processing credit card transactions over the Internet and for addressing security concerns not present in direct retail transactions. Recognizing the need for financial data security in e-commerce, the industry had investigated encryption techniques and architectures to protect sensitive data. A 1995 paper entitled Internet Keyed Payments Protocol (the iKP reference) reflected one such effort, and suggested two standard models, or protocols, with the intent of avoiding or minimizing changes to the existing financial infrastructure outside the Internet. In the first protocol, (1) the customer selected one or more items to purchase from the merchant’s website; (2) the customer sent credit card information to the merchant; (3) the merchant sent the credit card information and amount of the purchase to the merchant’s bank; (4) the merchant’s bank sought authorization for the purchase from the issuing bank over the existing banking network; and (5) the merchant’s bank notified the merchant (but not the customer) of transaction approval.

In the second protocol, (1) the customer selected one or more items to purchase on the merchant’s website; (2) the customer sent an authorization request, along with its credit card information and the amount of the purchase, to the merchant’s bank; (3) the merchant’s bank sought authorization from the issuing bank over the existing banking network; (4) the merchant’s bank notified the customer of transaction approval; and (5) the customer sent the authorization response to the merchant.

Ogram set out to create a new payment model to remedy two perceived deficiencies in the prior art protocols: (1) the customer sending confidential information over the Internet to an unknown merchant and (2) credit card issuers imposing onerous financial requirements on merchants. Ogram’s idea was to add a fifth entity, a “payment processing” or “financial processing” entity, to the conventional four entities—customer, merchant, merchant’s bank, and issuing bank. The new financial processing entity would (1) receive credit card account information and an amount to be charged from the customer when the customer placed the order; (2) seek authorization from the card issuer over the existing banking network; and (3) notify both the customer and the merchant of authorization. Ogram obtained patents drawn to his invention, and formed NMI to implement the model as a business for processing credit card transactions over the Internet.

NMI filed sued VeriSign, among others, for infringement. During claim construction, the district court invalidated various claims containing means-plus-function limitations as lacking corresponding structure and thus indefinite under 35 U.S.C. § 112, ¶ 2. The district court granted summary judgment to Verisign on inducing infringement, and denied NMI’s motion for leave to amend its complaint to add a claim for inducement of infringement. The district court also granted summary judgment that the iKP reference anticipated one of the claims. NMI appealed, and the Federal Circuit affirmed with respect to claim construction, but reversed and remanded with respect to anticipation.

The claim at issue called for an Internet payment system comprising five “links.” The district court found all five “links” in the iKP reference, albeit in two separate disclosed examples, and held the claim invalid as anticipated, concluding:
All of the limitations of claim 23 can be found within the iKP reference. A simple combination would produce the system described in claim 23 of the '737 patent. That no specific example within iKP contains all five links does not preclude a finding of anticipation.

On appeal, NMI urged that combining the two disclosed examples in order to find all elements of the claim was erroneous. VeriSign responded that the district court did not improperly rearrange the links in the iKP reference, but rather relied on various express teachings within the “four corners” of a single prior art document that together completely disclosed the five claimed links. The Federal Circuit disagreed with Verisign, and took the “opportunity to clarify what a reference must show in order to anticipate a claimed invention.” First, the Federal Circuit agreed that anticipation required “that the four corners of a single, prior art document describe every element of the claimed invention,” and reiterated that the document “must also disclose those elements ‘arranged as in the claim.’” The Federal Circuit then explained that “arranged as in the claim” was “more accurately understood to mean ‘arranged or combined in the same way as in the claim.’” After discussing Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., Ecolochem, Inc. v. Southern California Edison Co., and Finisar Corp. v. DirecTV Group, Inc., the Federal Circuit held 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 claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.”

44. Id. at 1369 (quoting Xerox Corp. v. 3Com Corp, 458 F.3d 1310, 1322 (Fed. Cir. 2006)).
45. Id. (quoting Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983)).
46. Id. at 1370.
50. Net MoneyIN, 545 F.3d at 1371.
Neither of the two protocols disclosed in the iKP reference contained all five links arranged or combined in the same way as claimed. The Federal Circuit concluded that (1) although the iKP reference might anticipate a claim directed to either of the two protocols disclosed, it could not anticipate the claimed system and (2) it was error to combine parts of the separate protocols shown in the iKP reference to show anticipation, even where there were only slight differences between the protocols disclosed in the iKP reference and the claimed system of claim 23—even slight differences invoked obviousness, not anticipation. According to the Federal Circuit, “it is not enough that the prior art reference discloses part of the claimed invention, which an ordinary artisan might supplement to make the whole, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention.” 51 The Federal Circuit thus reversed.

§ 2:11 PowerOasis, Inc. v. T-Mobile USA, Inc.

Once a party presents a prima facie showing of anticipation, the burden falls on the patentee to show it is entitled to a claim of priority. A broad claim construction may preclude the ability to obtain the benefit of earlier applications under section 120—and may lead to anticipation.

In PowerOasis, Inc. v. T-Mobile USA, Inc., 52 the two PowerOasis patents-in-suit were drawn to vending machines that sold telecommunications access. Those two patents-in-suit, the ’658 and ’400 patents, were at the end of a lineage beginning with the ’643 patent filed in 1997. Of significance was the CIP application filed in 2000 leading to the ’169 patent.

51. Id.
It was undisputed that a MobileStar Network had been placed “on sale” and “in public use” before June 15, 1999, and would anticipate the claims of the ’658 and ’400 patents as construed.

Independent claim 1 called for, inter alia, a “customer interface.” The parties had agreed that “customer interface” was “an interface that enables information to be passed between a human user and hardware or software components of a system,” but disagreed about the location of the customer interface. PowerOasis argued that the “customer interface” may occur on a customer’s laptop. T-Mobile argued that the customer interface must be located on the vending machine itself. The district court, relying entirely on “new matter” added in the 2000 CIP application, adopted PowerOasis’s proposed construction that the claim term “customer interface” encompassed an interface located on the customer’s laptop.

T-Mobile then filed a motion for summary judgment of invalidity, urging that the MobileStar Network anticipated the asserted claims, and thus those claims were invalid. PowerOasis urged that it was enti-
tled to the benefit of the '643 patent filed in 1997. The district court disagreed, and granted the motion for summary judgment. On appeal, the Federal Circuit affirmed.

PowerOasis first argued that the district court had erred by placing the burden of proof on PowerOasis to show that it was entitled to the priority date of the original application, relying on *Ralston Purina Co. v. Far-Mar-Co.* The Federal Circuit disagreed.

The Federal Circuit acknowledged that “a patent is presumed valid, and ‘the burden of persuasion to the contrary is and remains on the party asserting invalidity.’” In *Ralston*, though, the patent-in-suit had issued from a continuation application that in turn was a CIP of an earlier application. In an interference, the board had accorded the CIP application the benefit of the filing date of the parent, and the district court had accorded the board’s decision deference. Also, the section 102(a) prior art that the defendant in *Ralston* relied on had been considered by the PTO.

The Federal Circuit reasoned that in contrast to *Ralston*, the district court had not here made any priority date determinations for the various claims of the asserted patents with respect to any reference. The Federal Circuit noted that without interference or rejection requiring the PTO to make a determination of priority, the PTO does not make such findings as a matter of course in prosecution. The Federal Circuit reasoned that “[w]hen neither the PTO nor the Board has previously considered priority, there is simply no reason to presume that claims in a CIP application are entitled to the effective filing date of an earlier filed application.” Thus, there was no finding for the district court to defer to.

Thus, according to the Federal Circuit, T-Mobile bore the burden of showing invalidity by clear and convincing evidence. The Federal Circuit further concluded that T-Mobile had established a prima facie case of invalidity, because it was undisputed that the MobileStar Network was in public use more than one year prior to the June 15, 2000 filing date of the CIP Application, and PowerOasis conceded that the MobileStar Network would infringe the claims of the '658 and '400 patents if it were in operation today.

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With respect to the quantum of disclosure necessary, the Federal Circuit emphasized that although “a prior application need not contain precisely the same words as are found in the asserted claims,” “[e]ntitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is expressly disclosed.”\footnote{PowerOasis, 522 F.3d at 1306 (quoting In re Huston, 308 F.3d 1267, 1277 (Fed. Cir. 2002)).} In other words, the court explained, “the written description must actually or inherently disclose the claim element.”\footnote{Id.}

Here, the original 1997 application described a vending machine with a “display” or “user interface” as part of the vending machine, rather than a vending machine with a “customer interface” located on a customer’s electronic device. The 2000 CIP application added language describing a vending machine with a user interface located remotely from the vending machine, such as on a user’s laptop. It was that language that the district court relied on in adopting PowerOasis’s proposed construction.

PowerOasis urged that as long as “customer interface” was supported by the 1997 application, the claims should be entitled to the benefit of that filing date regardless of the construction given that term by the district court. The Federal Circuit disagreed, reasoning that the written description of the original application must support the same construction given by the district court for “customer interface” as used in the ’658 and ’400 patents. That the original application may support a narrower construction of “customer interface” as a display on the vending machine did not, according to the Federal Circuit, mean that the original application supported the broader construction of a “customer interface” as an interface located on the customer’s laptop (remote from the vending machine). Because the original application did not support a “customer interface” on a customer laptop, the Federal Circuit concluded that the asserted claims were not entitled to the effective filing date of the original application, and were thus anticipated by the MobileStar Network.

\footnote{PowerOasis, 522 F.3d at 1306 (quoting In re Huston, 308 F.3d 1267, 1277 (Fed. Cir. 2002)).}
\footnote{Id.}
§ 2:12 Sanofi-Synthelabo v. Apotex Inc. (Sanofi IV)

Disclosure of a racemate does not necessarily anticipate claims to a specific enantiomer that has not been separated, identified, and characterized.

In Sanofi-Synthelabo v. Apotex Inc. (Sanofi IV), also discussed in sections 2:13 and 3:12, Sanofi-Synthelabo and related companies owned the patent-in-suit drawn to a pharmaceutical product known as clopidogrel bisulfate and sold under the brand name Plavix®. The drug had the property of inhibiting aggregation of blood platelets, and was used to treat or prevent blood-thrombotic events such as heart attacks and strokes. Apotex filed an ANDA, with a paragraph IV certification, seeking authorization to produce a generic version. Sanofi timely responded with a suit for infringement, which triggered a thirty-month stay of FDA approval of Apotex’s ANDA, under 21 U.S.C. § 355(j)(5)(B)(iii). A proposed settlement was not reached, the statutory stay expired, the FDA approved Apotex’s ANDA, and Apotex commenced commercial sales in 2006. Sanofi moved for a preliminary injunction, which the district court granted. In a first appeal, Sanofi-Synthelabo v. Apotex Inc. (Sanofi II), the Federal Circuit affirmed the grant of that injunction. On the merits, Apotex conceded infringement, and in a subsequent bench trial, the district court concluded that the asserted claim of the patent-in-suit was valid and enforceable. In the current appeal, Apotex urged that the district court had erred in finding that the asserted claim of the patent-in-suit was neither anticipated nor rendered obvious. The Federal Circuit disagreed, and affirmed the district court’s holding that the claims of the patent-in-suit were valid.

The district court and the Federal Circuit viewed claim 3 as being drawn to (1) the bisulfate salt (hydrogen sulfate was also known as bisulfate salt) of (2) the d-enantiomer of (3) the racemate MATTPCA (4) substantially separated from the l-enantiomer. Clopidogrel was the common name given to the d-enantiomer of MATTPCA.

The racemate MATTPCA was synthesized and identified during research as PCR 4099, and was disclosed in prior art patents owned by Sanofi in both the United States and Canada. Apotex urged that the claimed d-enantiomer of MATTPCA was anticipated or rendered obvious by the prior disclosure of the racemate PCR 4099.

PCR 4099 exhibited good anti-platelet aggregation properties, but raised concerns over toxicity. At that time, Sanofi scientists had previously separated two other racemates into the enantiomers, but found no improved properties over the racemate. Nevertheless, a decision was made to study the properties of the enantiomers of PCR 4099. Apparently the procedures for separating a racemate into the enantiomers were known, but were complex and time-consuming, and one could not predict which of some ten different procedures might work. The Sanofi scientist tasked with separating the enantiomers of PCR 4099 took five months of experimentation.

Sanofi thereafter investigated the biological properties of the enantiomers of PCR 4099, and discovered that they had a characteristic known as “absolute stereoselectivity,” that is, the d-enantiomer provided the favorable antiplatelet activity without significant toxicity, while the l-enantiomer produced no antiplatelet activity and virtually all of the toxicity. Such “absolute stereoselectivity” was rare, and the experts agreed that although enantiomers can exhibit different biological activity, the degree of selectivity here was unusual and could not have been predicted.

After further research, Sanofi discovered that hydrochloride salt, which had been suitable for processing and tabletting the racemate PRC 4099, was not suitable for clopidogrel. Sanofi subsequently discovered that hydrogen sulfate salt (also known as bisulfate salt) was suitable for tabletting. The FDA approved clopidogrel bisulfate in 1998, allowing marketing of Plavix®.

Apotex argued that Sanofi’s earlier U.S. and Canadian patents disclosed not only the racemate PCR 4099, but also its addition salts and enantiomeric forms. Experts for both sides agreed that compounds having a symmetric carbon atom, such as PCR 4099, had enantiomers. Additionally, the specification for the U.S. patent mentioned that the compounds could exist in the form of two enantiomers, and that the invention related both to each enantiomer and to their mixture. However, the witnesses also agreed that all of the compounds disclosed
in the U.S. patent were racemates, and neither the specific examples nor any other part of the specification showed separation into enantiomers. The district court reasoned that a person of ordinary skill in the field of the invention would not have been guided to either the d-enantiomer of PCR 4099 or its bisulfate salt.

Apotex argued that the district court had erred as a matter of law. Apotex urged that (1) here Example 1 of the U.S. patent was specific to PCR 4099, and (2) the claims referred to “addition salts with pharmaceutically acceptable mineral or organic acids” and “both enantiomeric forms or their mixture.” The Canadian counterpart disclosed that when the desired structure is obtained, it “is isolated and, if desired, its enantiomers are separated and/or it is salified by mineral or organic acid action.” Apotex argued that the U.S. patent was anticipatory because it disclosed racemate 4099, disclosed that that racemate had enantiomers, and disclosed that those enantiomers were part of the invention. Apotex argued that the d-enantiomer of MATTPCA could therefore not be deemed novel, as a matter of law.

The Federal Circuit disagreed, commenting that was not a “correct view of the law” and noting that an anticipatory reference must disclose all of the claim elements.

The Federal Circuit noted that the district court had analyzed anticipation in terms of whether a generic disclosure necessarily anticipates everything within the genus. The district court had distinguished In re Petering 58 and In re Schaumann, 59 noting that in those cases, a generic disclosure had identified “specific preferences” which were met by later-claimed species. The district court concluded that Sanofi’s prior U.S. and Canadian patents contained no similar “specific preferences.” The Federal Circuit agreed, concluding that the district court did not clearly err in finding that the reference disclosure would not have led one of ordinary skill to recognize either an explicit or an inherent disclosure of its dextrorotatory enantiomer, as well as the bisulfate salt.

The district court had also noted that in In re May, 60 the CCPA had held that “the novelty of an optical isomer is not negated by the prior art disclosure of its racemate.” The Federal Circuit found no error, concluding that “the knowledge that enantiomers may be separated is

60. In re May, 574 F.2d 1082, 1090 (C.C.P.A. 1978).
not anticipation of a specific enantiomer that has not been separated, identified, and characterized.” The Federal Circuit thus affirmed.

§ 2:13  Sanofi-Synthelabo v. Apotex Inc. (Sanofi IV)

Failure to disclose a successful technique may render prior art reference nonenabling.

The facts in Sanofi-Synthelabo v. Apotex Inc. (Sanofi IV) are discussed in section 2:12. The district court first held that Sanofi’s U.S. and Canadian patents, disclosing the racemate PCR 4099, did not anticipate claim 3 because claim 3 called for the “dextro-rotatory isomer . . . substantially separated from the levo-rotatory isomer.” Despite the disclosure of the racemate, the d-enantiomer was a novel compound.

The district court further held that Sanofi’s U.S. and Canadian patents were not enabling because they did not contain any guidance on how to separate the enantiomers of PCR 4099. The Federal Circuit sustained that holding as well.

In Amgen Inc. v. Hoechst Marion Roussel, Inc., the Federal Circuit had held that an “accused infringer should be similarly entitled to have the district court presume the enablement of unclaimed (and claimed) material in a prior art patent defendant asserts against a plaintiff.” Apotex argued that under Amgen, Sanofi’s earlier patents were presumptively enabling. Apotex urged that it was irrelevant whether the separation of the claimed enantiomer was shown, because a person of ordinary skill would have known of the existing techniques for separating stereoisomers, and the method that Sanofi used was well-known, even if it involved some experimentation.

The Federal Circuit responded that “[a]ny presumption of enablement of prior art does not exclude consideration of whether undue experimentation would be required to achieve enablement.”

63. Sanofi IV, 550 F.3d at 1085.
The U.S. patent disclosed the PCR 4099 racemate, and that “if desired, its enantiomers are separated.” The Canadian counterpart had a similar disclosure. The district court had concluded that those patents did not describe how to separate the enantiomers of PCR 4099, and that “[d]iscovering which method and what combination of variables is required is sufficiently arduous and uncertain as to require undue experimentation, even by one skilled in the relevant art.”

The Federal Circuit held that finding had not been shown to be “clearly erroneous,” and pointed to its opinion in Forest Laboratories, Inc. v. Ivax Pharmaceuticals, Inc. as recognizing “the known difficulty of separating enantiomers and the unpredictability of their properties,” and holding that “a reference that stated that a compound has enantiomers did not enable the separation of those enantiomers, where the reference did not teach how to obtain the enantiomer.”


Paper placed on FTP server for seven days may—or may not—constitute a printed publication. Panel majority: issue not ripe for summary judgment; dissent: under facts of this case, a printed publication.

In SRI International, Inc. v. Internet Security Systems, Inc., the four patents-in-suit evolved from an application filed on November 9, 1998. Thus, the “critical date” was November 9, 1997.

SRI had received funding for a project entitled Event Monitoring Enabling Resources to Anomalous Live Disturbances (EMERALD) in August 1996, and began publicizing EMERALD at a November 1997 workshop. The subject EMERALD 1997 paper was posted on SRI’s FTP server in June 1997, and was presented in October 1997, at the 20th National Information Systems Security Conference. The confer-

64. Id. (quoting the district court’s opinion, 492 F. Supp. 2d at 387).
65. Forest Labs., Inc. v. Ivax Pharm., Inc., 501 F.3d 1263 (Fed. Cir. 2007).
66. Sanofi IV, 550 F.3d at 1085.
ence at some point published the peer-reviewed article, although the date of publication is not clear from the opinion.

SRI disclosed the EMERALD 1997 paper during the prosecution of the '212 patent in the “Other Publications” section of an IDS. Information in the paper overlapped significantly with information in the specification. For example, similar drawings and text appeared in both the EMERALD 1997 paper and in the specification. SRI did not argue that the EMERALD 1997 paper failed to anticipate the claims. Rather, SRI urged that the paper did not contain an enabling disclosure. In brief, the Federal Circuit held that the EMERALD 1997 paper contained an enabling disclosure.

In 1997, the inventors wrote a “Live Traffic” paper based on the EMERALD project, and the four patents-in-suit incorporated the paper by reference. SRI displayed the paper on its website on November 10, 1997, and there apparently was no dispute that the Live Traffic paper became a “publication” then. The applications maturing into the four patents-in-suit were, of course, filed one day earlier, on November 9, 1997. The Live Traffic paper was later published in the December 12, 1997, proceedings of a Symposium on Network and Distributed Systems Security (SNDSS), and was cited in the IDS filed in connection with the patents-in-suit.

The Internet Society (ISOC) had posted a call for papers for the SNDSS on its website. That call required email submission by August 1, 1997, with a backup hardcopy submission, and did not mention confidentiality.

One of the inventors, Porras, on August 1, 1997, emailed the Live Traffic paper to SNDSS. The email noted that SRI would make a copy of the paper available on the SRI FTP server as a backup, and included the paper’s FTP address, ftp://ftp.csl.sri.com/pub/emerald/ndss98.ps. There apparently was no dispute that the Live Traffic paper was on the SRI FTP server for seven days, and during that time could be accessed by the public.

According to the panel majority, Porras had, in seven instances, directed people to the SRI FTP server and the EMERALD subdirectory to locate papers related to the EMERALD project. In four instances, according to the opinion, Porras had provided people with the full path and filename of the desired paper—and apparently each of
those papers included “emerald” in the file name, that is, these were papers other than the Live Traffic paper.

The issue on summary judgment was whether the Live Traffic paper constituted a “printed publication” under section 102(b). The district court held that it was, and concluded that the paper anticipated the asserted claims of the patents-in-suit. On appeal, the Federal Circuit panel majority reversed, concluding that there were genuine issues of material fact whether the Live Traffic paper was “publicly accessible.” Circuit Judge Moore, in dissent, urged that SRI had failed to show that any genuine issue of material fact was in dispute, and that the district court was correct in holding that the Live Traffic paper constituted a printed publication.

The district court had reasoned that (1) the FTP site was publicly accessible, (2) Porras had provided information regarding the FTP site to other members of the intrusion detection community in presentations and via e-mail, and (3) one of ordinary skill in the art would know that the FTP site contained information on the EMERALD project and would therefore navigate through the folders to file the Live Traffic paper.

SRI argued that (1) the email sent to the Program Chair for SNDSS was a private communication, and (2) the file name of the paper was not indexed or catalogued in any meaningful way to enable a person of ordinary skill in the art to locate the paper. The defendants, on the other hand, argued that posting the Live Traffic paper to a publicly accessible FTP server made the paper publicly available to persons interested in the art, and that posting to a public FTP server could not, as a matter of law, constitute a private communication.

The panel majority reasoned that the court’s case law on public accessibility under section 102(b) fell into two lines of cases—one line illustrating a lack of public accessibility and the other line illustrating where public accessibility had been satisfied. The first line, according to the panel majority, included In re Bayer, 568 F.2d 1357 (C.C.P.A. 1978). 68 In re Cronyn, 890 F.2d 1158 (Fed. Cir. 1989). 69 In re Wyer, 655 F.2d 221 (C.C.P.A. 1981). 70 In re Klopfenstein, 380 F.3d 1345 (Fed. Cir. 2004). 71 Bruckelmyer v. Ground Heaters, Inc., 445 F.3d 1374 (Fed. Cir. 2006). 72
second line included In re Wyer,\textsuperscript{70} In re Klopfenstein,\textsuperscript{71} and Bruckelmyer v. Ground Heaters, Inc.\textsuperscript{72}

In Bayer, a graduate thesis had been available in a university library, but had not been catalogued or indexed and only three faculty members knew about the thesis. In Cronyn, a thesis had been indexed in a university library by author’s name. In both instances, the court had held that those theses were not reasonably accessible.

In Wyer, an Australian patent application had been laid open to the public, and had been indexed or abstracted to permit public access. In Klopfenstein, posters had been placed at two professional conferences. In Bruckelmyer, a Canadian patent application had been found to be sufficiently accessible to render it a “printed publication”—therefore making two figures that appeared in the application, but not in the subsequently issued patent, prior art under section 102(b).

The panel majority reasoned that this case fell somewhere between Bayer and Klopfenstein. The majority reasoned that like Bayer, the Live Traffic paper was accessible from the FTP server, somewhat analogous to a thesis being available in a library. However, the majority viewed the server as not having “an index or catalogue or other tools for customary and meaningful research.” Further, the summary judgment record showed that only one non-SRI person, Dr. Bishop, specifically knew about the availability of the Live Traffic paper.

According to the panel majority, the summary judgment record did not show that an anonymous user skilled in the art in 1997 would have gained access to the FTP server and would have freely navigated through the directory structure to find the Live Traffic paper. To the contrary, the panel majority reasoned, Porras thought it necessary to provide Bishop with the full FTP address for the file, even though Bishop, the program chair for SNDSS, would have qualified as one of ordinary skill in the art in 1997. The panel majority viewed as “doubtful” that anyone outside the review committee looking for papers submitted to the ISOC symposium would search a subfolder of an SRI FTP server, or that anyone outside the review committee would have been aware of the paper or looked for it at all in early August 1997.

On the other hand, the panel majority reasoned, the Live Traffic paper was similar to the posters at issue in Klopfenstein, that is, anyone with knowledge of the FTP server and of the EMERALD subdirectory
could access the paper. However, the panel majority concluded that, unlike Klopfenstein, the Live Traffic paper had not been publicized per se, and the majority analogized the posters as being placed at a vacant and unpublicized conference. Ultimately, the majority viewed the Live Traffic paper as falling on the Bayer side of the cases.

Circuit Judge Moore, dissenting in part, agreed that the case was not governed by either the “library” cases such as Bayer or the dissemination cases such as Klopfenstein. However, in Judge Moore’s view, the “navigable structure” of the FTP server made the Live Traffic paper publicly accessible, especially to individuals in this field, who were, presumably, computer savvy, and were aware of both the EMERALD project and the fact that SRI’s FTP server contained papers related to that project. According to Judge Moore, whether analyzed under the rubric of the library thesis cases or the temporary dissemination cases, the result was the same: the defendants had carried their burden under Rule 56(c), but SRI presented no evidence showing genuine issues of material fact for trial.

§ 2:15 Technology Licensing Corp. v. Videotek, Inc.

Court explains burdens of proof and persuasion when one seeks to rely on domestic priority to overcome an anticipatory reference.

In Technology Licensing Corp. v. Videotek, Inc., the Federal Circuit explained at length the parties’ respective burdens of proof and persuasion when a patentee seeks to rely on domestic priority to overcome an anticipatory reference, apparently seeking to resolve confusion caused by its opinion in PowerOasis, Inc. v. T-Mobile USA, Inc., discussed in section 2:11.


§ 2.15

The two patents-in-suit, the '869 and '250 patents, were drawn to “sync separators” used in synchronizing television video signals. The patents-in-suit issued from a continuation and two CIPs of an application originally filed on February 28, 1992.

TLC had originally sued Videotek, and Videotek had filed a third-party complaint against its sync separator chip supplier, Gennum Corporation, seeking a right to indemnification. Gennum then filed a third-party complaint against TLC seeking a declaratory judgment that TLC’s patents were invalid, unenforceable, and not infringed. TLC filed counterclaims for infringement against Gennum. TLC and Videotek settled, leaving only the dispute between TLC and Gennum. One of the questions was whether prior art Elantec synch separator chips, as described in data sheets published in May and November, 1993, anticipated claims in the '250 patent-in-suit. TLC conceded anticipation, but asserted that the claims in the '250 patent were entitled to the benefit of the filing date of the parent '323 application. The district court held that there was no written description support for those claims in the '323 application, and held the claims invalid. On appeal, the Federal Circuit affirmed.

Claim 33 in the '250 patent called for, in pertinent part, “(a) coupling said video type signal through a capacitor or other circuit thereby establishing a level shifted signal having a sync portion.” When the applicant added claim 33 to the application maturing into the '250 patent, the application stated that “Claim 33 element [(a)] corresponds
to [capacitor] C3 of figure 2, or alternatively to [capacitor] 1603, or
[ resistors] 1604 and 1605 of Figure 16.” According to the Federal
Circuit, what that meant is that the “capacitor” specified in step (a)
corresponded to one of the two identified capacitors, that is, either
capacitor C3 in Fig. 2 or capacitor 1603 in Fig. 16 of the ’250 patent.
The Federal Circuit further reasoned that left resistors 1604 and 1605
in Fig. 16 of the ’250 patent as corresponding to the “other circuit.”
Fig. 16 was part of the “new matter” added when the CIP was filed in
1995. The question regarding anticipation was whether the “other
ircuit” found written description support in the parent ’323 applica-
tion.

Before turning to the merits, the Federal Circuit explained the
burdens of proof and persuasion, and the allocation of those burdens
per PowerOasis. The court explained that there were two “burdens of
proof.” “One is the burden of persuasion. That is the ultimate burden
assigned to a party who must prove something to a specified degree of
certainty [for example, clear and convincing].” 75 The court explained
that “[f]ailure to prove the matter as required by the applicable standard
means that the party with the burden of persuasion loses on that
point—thus, if the fact trier of the issue is left uncertain, the party with
the burden loses.” 76

The Federal Circuit explained that TLC had the burden of persua-
sion on the issue of infringement, and the standard was a preponder-
ance of the evidence. Gennum, on the other hand, had the burden of
persuasion on the affirmative defense of invalidity, and the standard was
clear and convincing evidence. The court emphasized that “[n]either
TLC’s burden to prove infringement nor Gennum’s burden to prove
invalidity, both ultimate burdens of persuasion, ever shifts to the other
party—the risk of decisional uncertainty stays on the proponent of the
proposition.” 77

Another burden, the Federal Circuit explained, was the burden “of
going forward with evidence—sometimes referred to as the burden of
production—a shifting burden the allocation of which depends on

75. Tech. Licensing Corp., 545 F.3d at 1326.
76. Id. at 1327.
77. Id.
78. Id.
where in the process of trial the issue arises.” The court explained that TLC had the initial burden of going forward with evidence to support its infringement allegation, and that Gennum, having the ultimate burden of proving its defense of invalidity based on anticipating prior art, then had the burden of going forward with evidence that there is such anticipating prior art. At that point, TLC had the burden of going forward with evidence either that the prior art did not actually anticipate, or, as was attempted in this case, that it was not prior art because the asserted claim was entitled to the benefit of a filing date prior to the alleged prior art. That, according to the Federal Circuit, required TLC to show not only the existence of the earlier application, but also why the written description in the earlier application supported the claim. The Federal Circuit further explained that if TLC submitted evidence and argument in support of the earlier filing date, the burden of going forward again shifted to Gennum, to convince the court that TLC was not entitled to the benefit of the earlier filing date.

According to the Federal Circuit, “‘[c]onvince’ is the operative word, because if the court is not persuaded by clear and convincing evidence that Gennum is correct, Gennum has failed to carry its ultimate burden of persuasion, and its defense of invalidity, based on anticipation by the Elantec art, fails.”

The court’s decision in PowerOasis was issued after briefing had been completed, but before oral argument. Gennum, at oral argument, contended that the rule from PowerOasis was that if the trier of fact was left in doubt as to whether claims were entitled to the benefit of the earlier filing date of a parent application, the patentee lost, that is, the burden of persuasion as to whether claims were entitled to the benefit of an earlier application fell on the patentee. The Federal Circuit disagreed.

In PowerOasis, the Federal Circuit noted that once T-Mobile had satisfied its initial burden of coming forward with evidence of anticipatory prior art, “the burden was on PowerOasis to come forward with evidence to the contrary.” The Federal Circuit then concluded that the “district court therefore correctly placed the burden on
PowerOasis to come forward with evidence to prove entitlement to claim priority to an earlier filing date. 81 The Federal Circuit noted that others had also read PowerOasis as imposing a burden of persuasion on the patentee—which the court noted was not its intent. In short, the burden of going forward shifted, but the burden of persuasion remained fixed.

There was also a question of deference to the PTO. In PowerOasis, there had been no finding by the PTO that required deference. Here, the Elantec data sheets had been before the examiner during the examination of the application maturing into the '250 patent, but there was nothing in the record indicating whether or not the PTO had accorded the '250 patent application the benefit of the earlier filed '323 application. Additionally, following oral argument, the PTO had reissued the '250 patent with the original claims, including claim 33, unchanged. It thus appeared that the PTO had accorded claim 33 the benefit of the filing date of the '323 application. The Federal Circuit reasoned that, under the circumstances, the PTO’s decision would not be given deference and thus declined to ask the trial court to “reopen the entire invalidity question to reweigh the intangible worth of additional deference.”

On the merits, TLC argued that resistors R21 and R26 in the written description of the '323 application provided support for the “other circuit” in step (a) of claim 33. Resistors R21 and R26 appeared only in Fig. 3, one of several circuit diagrams in the application. According to the court, the written description did not mention resistor R26, and mentioned resistor R21 only in passing. On the other hand, the '250 patent contained additional disclosure describing a level shifting circuit that supported the “other circuit” limitation in claim 33. Fig. 16 illustrated two resistors, 1604 and 1605, that were described as providing for level shifting, that is, the function attributed to the “other circuit” in claim 33. The Federal Circuit concluded that there was clear and convincing evidence that the inventor did not have possession of the invention of claim 33 as of the time that the '323 application was filed. Accordingly, the judgment of anticipation was affirmed.
§ 2:16 Zenith Electronics Corp. v. PDI Communication Systems, Inc.

Anticipation cannot be proved by merely establishing that one “practices the prior art.” Mere proof that the prior art is identical, in all material respects, to an allegedly infringing product cannot constitute clear and convincing evidence of invalidity. Anticipation requires a showing that each element of the claim at issue, properly construed, is found in a single prior art reference.

In Zenith Electronics Corp. v. PDI Communication Systems, Inc., also discussed in section 7:20, Zenith’s two patents-in-suit, Patent A and Patent B, were drawn to televisions and wired remote control devices used in hospital rooms. Hospitals for various reasons required wired remote controls for television sets. Usually those included speakers and thus were referred to as “pillow speakers.”

Pillow speakers were generally connected to televisions through three wires that supplied audio signals and control signals. However, functionality was limited because existing systems used analog control signals. The invention of the patents-in-suit enabled transmission of encoded digital control signals over the existing three-wire interfaces installed in hospital rooms.

Three companies—Curbell Electronics, MedTek, Inc., and Crest Electronics—manufactured and distributed digital pillow speakers pursuant to licenses under Patent A (but not Patent B). Those pillow speakers were designed to operate Zenith televisions using Zenith control codes.

In 2003, PDI began marketing an LCD television to the healthcare industry that provided compatibility with digital pillow speakers using Zenith’s control codes, that is, the digital pillow speakers manufactured by Curbell, MedTek, and Crest. Zenith sued PDI for both direct and indirect infringement. PDI, inter alia, counterclaimed for a declaratory judgment that the claims of the patents-in-suit were invalid for anticipation, unenforceable due to inequitable conduct, and not infringed.

The district court granted summary judgment that (1) claim 1 of Patent A and claim 1 of Patent B were anticipated by the public use of a television manufactured by Radio Corporation of America (RCA TV) in combination with a digital pillow speaker manufactured by Curbell, prior to December 27, 1993, the critical date for both patents, and (2) PDI had an implied license due to the license between Zenith and Curbell et al. The district court also dismissed PDI’s inequitable conduct claims. The Federal Circuit affirmed the finding of anticipation for Patent A, but reversed for Patent B.

With respect to anticipation of Patent A, Zenith contended that the district court had misconstrued the “operating power” limitation. According to Zenith, the RCA TV supplied a maximum of 0.48 milliamperes (mA) of current, while an encoder chip in the Curbell speaker required at least 5 mA to operate and used a large capacitor to provide the necessary amount of current. Zenith contended that although the RCA TV provided “power” to the pillow speaker, it did not provide “operating power,” and thus did not anticipate. PDI argued that the RCA TV necessarily provided “operating power,” because it was undisputed that that was the only source of power for the pillow speaker. The Federal Circuit agreed with PDI and gave the term its “ordinary meaning,” that is, “an amount of power that is sufficient to enable the operation of the multi-function control signal encoder.”

Zenith also argued that PDI had not provided clear and convincing evidence that (1) the RCA TV and Curbell speaker were used together prior to the critical date, (2) the alleged use was a public use, and (3) the alleged use was enabling. The Federal Circuit again disagreed.

PDI had relied on testimony by its expert, William Mengel, who had worked at RCA from 1964 to 2003. Mengel testified that RCA began to market the RCA TV in 1989, and that Curbell had developed its speaker for use with that TV, based upon technical information that he had provided. He further testified that the Curbell speaker was developed prior to 1991, and was on sale and being publicly used together with the RCA television well before the critical date. That testimony was corroborated by other witnesses, documentary evidence, and Zenith’s admissions. Although Zenith questioned PDI’s evidence of “public use,” the Federal Circuit concluded that Zenith had not established a genuine issue of material fact. Mengel and an employee of Curbell, Wakefield, further testified that the RCA TV/
Curbell Speaker combo anticipated claim 1 of Patent A. Accordingly, the Federal Circuit agreed with the district court that claim 1 of Patent A was invalid as having been anticipated.

With respect to anticipation of Patent B, the district court had focused solely on whether the RCA TV satisfied the “programmed to ignore” limitation. The district court stated: “Zenith does not specifically point to any other element of Claim 1 that it contends was not anticipated by the RCA TV. Therefore, this is the only element that need be considered regarding anticipation.”

The Federal Circuit, however, concluded that PDI had not established that claim 1 of Patent B was invalid as anticipated by the RCA TV. According to the court, PDI provided no evidence that the final two limitations of claim 1, that is, “detecting said key closure with a timing circuit” and “operating key closure identification circuitry in response to said timing circuit,” were anticipated.

PDI had argued that “to the extent the [allegedly infringing] PDI P20LCD is considered to practice them, then so did the RCA J20525 television.” The court commented that “[r]egardless of whether PDI’s statement is correct, anticipation cannot be proved by merely establishing that one ‘practices the prior art.’” In Tate Access Floors, Inc. v. Interface Architectural Resources, Inc., 83 the Federal Circuit had explained:

Where an accused infringer is clearly practicing only that which was in the prior art, and nothing more, and the patentee’s proffered construction reads on the accused device, meeting this burden of proof should not prove difficult. Nevertheless, accused infringers are not free to flout the requirement of proving invalidity by clear and convincing evidence by asserting a “practicing prior art” defense to literal infringement under the less stringent preponderance of the evidence standard.

Here, the court added: “Likewise, mere proof that the prior art is identical, in all material respects, to an allegedly infringing product cannot constitute clear and convincing evidence of invalidity. Anticipation requires a showing that each element of the claim at issue, properly construed, is found in a single prior art reference.” 84

The district court had also failed to decide the construction of the “programmed to ignore” limitation. The Federal Circuit instructed the district court that, on remand, such construction was necessary to resolve the issue of anticipation.

§ 2:16.1 The Claim at Issue in This Case

Claim 1 was deemed representative of the method claims in Patent A:

1. A method of operating a television receiver wired to a remote housing including a speaker and a multi function control signal encoder comprising:
   supplying operating power to said multi function control signal encoder from the television receiver over first and second wires;
   supplying audio signals to said speaker from said television receiver over said first wire and a third wire; and
   supplying encoded control signals from said multi function encoder to said television receiver over said first and second wires.

Claim 1 of Patent B was deemed representative of the method claims in that patent:

1. A method of controlling a television receiver in response to a key closure or data pulses received from a remote location over a pair of wires, the key closure having a substantially longer duration than the data pulses, comprising:
   receiving said key closure and said data pulses;
   decoding said data pulses with a microprocessor programmed to ignore said key closure;
   detecting said key closure with a timing circuit; and
   operating key closure identification circuitry in response to said timing circuit.