

## ADDITIONAL DEVELOPMENTS—PATENT

### *AMAZON.COM V. BARNESANDNOBLE.COM, INC.*

*239 F.3d 1343 (Fed. Cir. 2001)*

*By Tiffany Weeks*

In *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), the Federal Circuit broadened the scope of patentable subject matter under 35 U.S.C. § 101 (“section 101”). The decision extended the scope of patentable subject matter to encompass business methods as a class. The patent in suit in *Amazon.com, Inc. v. Barnesandnoble.com, Inc.* was the first internet business method patent to be litigated and thus provided the Federal Circuit an opportunity to implement its holding in *State Street*.

In 1995, the online market was beginning to explode. Yet, a large population of online consumers could not be reached due to wide-spread fear of the potential security risks associated with online credit card purchases. In an effort to realize full revenue potential, both retailers and credit card companies began to introduce a variety of remedies to calm consumers’ fears.

Around May 1997, online retailer Amazon.com (“Amazon”), introduced the “1-Click” solution to address the long-standing problem faced by all online retailers—the abandonment of approximately 65% of online shopping carts. By whittling the required purchase steps down to one click, as opposed to the several confirmation steps employed by the more traditional shopping models, Amazon’s ordering system sought to capitalize on the impulsive nature of buyers.

United States Patent No. 5,960,411 (“the ’411 patent”) issued on September 28, 1999, and is assigned to Amazon. In the ’411 patent, the 1-Click method assigns each customer a unique customer identifier (“cookie”) that allows the customer to automatically be recognized without requiring them to log on. The item to be purchased is chosen from a visual display. The method requires only one click for an order to be generated, as the customer’s credit card and shipping information has been previously entered and stored. The customer information is retrieved from a second server, where it has been stored and scrambled for added security. The order does not require any further confirmation from the customer. Amazon’s patent explicitly disclaims the “shopping cart” model which was the standard method for online shopping prior to 1-Click

Wanting to capture a share of the market that Amazon was able to tap, BarnesandNoble.com implemented its “Express Lane” ordering feature in May 1998. The Express Lane feature allowed customers to purchase a displayed product with a single click of a mouse. Less than one month after the ’411 patent issued, Amazon filed suit against BarnesandNoble.com (hereinafter “BN”) for infringement its patent. Amazon moved for a preliminary injunction to enjoin BN’s use of the Express Lane method.

## I. LEGAL BACKGROUND

### A. Preliminary Injunction Requirements

Four elements must be met for a court to order a preliminary injunction: (1) a reasonable likelihood of success on the merits at trial; (2) a showing that the party would suffer irreparable harm if the preliminary injunction was *not* granted; (3) the balance of hardships had been determined to tip in the movant's favor; and (4) the preliminary injunction sought was in the public interest. 35 U.S.C. § 283.

In the patent infringement context, the trial court is required to make a preliminary determination as to patent validity before injunctive relief can properly be granted. This construction is compatible with and subsumed under the first prong of the preliminary injunction standard. *See Sofamor Danek Group v. Depuy-Motech*, 74 F.3d 1216 (Fed. Cir. 1996). Despite the strong presumption of validity under 35 U.S.C. § 282, the party seeking relief may still establish a "likelihood of success on the merits." If the accused infringer, however, raises a substantial question as to the validity of a patent on anticipation or obviousness grounds, the burden then shifts to the patent holder to provide sufficient evidence to rebut these attacks. *See Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 73 F. Supp. 2d 1228, 1239 (W.D. Wash. 1999). If the patent holder has sustained this burden, then the injunction should issue. *Genentech, Inc. v. Novo Nordisk, A/S*, 108 F.3d 1361, 1364 (1997). Thus, the decision on whether or not issue a preliminary injunction entails an assessment of validity, including questions of obviousness. *See We Care, Inc. v. Ultra-Mark Int'l Corp.*, 930 F.2d 1567 (Fed. Cir. 1991).

To reverse a preliminary injunction that has been granted the Federal Circuit must make a clear showing that the district court committed legal or factual error. *New England Braiding Co. v. A.W. Chesterton Co.*, 970 F.2d 878, 882 (Fed. Cir. 1992). Additionally, case law has held that no one factor is "dispositive" [but] the absence of an adequate showing with regard to any one factor may be sufficient, given the weight or lack of it assigned the other factors, to justify the denial." *Chrysler Motor Corp. v. Auto Body Panels of Ohio*, 908 F.2d 951, 953 (Fed. Cir. 1990). Therefore, before a reversal of an injunction can be ordered, the Federal Circuit *must* engage in a balancing test to support its decision.

### B. Invalidity

In assessing validity, the court must construct the claims of the patent to determine if the patent was anticipated by prior art. For a patent to be invalid for a lack of novelty, every element of the patent must be present in a single prior art reference. *Merck & Co., v. Mylan Pharms.*, 19 F. Supp. 2d 334, 345 (1998). Each individual element within both the prior art and the patent in question must be present. If this happens to be the case, then the patent is said to anticipate the prior art and it will be held invalid. If the patent in question incorporates additional elements or there are missing elements, the patent will withstand the anticipation examination and the inquiry for a validity determination will proceed to an obviousness determination under 35 U.S.C. § 103.

Section 103 requires the court to consider additional factors before a patent may be issued: (1) the nature of the problem to be solved; (2) the teachings of prior art; and (3) the knowledge of persons of ordinary skill in the art (where this is a hypothetical legal construction).

In 1966, the Supreme Court decided *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966). Two principles emerged from the Court's decision: (1) the *differences*

between the invention and the prior art must be assessed *as a whole*; and (2) courts may not determine validity in hindsight. Thus, in determining the obviousness of a patent, courts must make a determination as to what a person of ordinary skill in the art, at the time, would have considered obvious.

In addition, the Supreme Court looked at other objective indicia in determining the obviousness of the patent. These considerations—commercial success of the invention, long-felt need, and failure of others—were used as further measures of the patent’s validity. These secondary considerations have continued to evolve within the federal courts and additional objective factors have been incorporated into the obviousness analysis over time. In *Weatherchem Corp. v. J.L. Clark, Inc.*, 163 F.3d 1326 (Fed. Cir. 1998), the Federal Circuit formally incorporated secondary considerations as the fourth prong of the obviousness test.

If a single prior art reference does not render the patented invention obvious, and therefore invalid, the main inquiry shifts to obviousness in light of a combination of references. Here, the inquiry is whether the combination was “taught, suggested or motivated through prior art” *or* if someone of ordinary skill in the art would have found the combination obvious. If a motive to combine exists or a combination is obvious to one skilled in the art, the patented invention is obvious in light of the combined references. Nevertheless, a patent that combines elements from several prior art references may be found to be nonobvious where the prior art “teaches away from” the combination. *Winner Int’l Royalty Corp. v. Wang*, 202 F.3d 1340 (Fed. Cir. 2000).

## II. CASE SUMMARY

### A. The District Court Opinion

During the preliminary injunction hearing, BN raised the affirmative defenses of anticipation and obviousness under 35 U.S.C. §§ 102-103. The district court found these defenses lacking in merit and granted a preliminary injunction on December 1, 1999.

BN argued that the 1-Click patent was anticipated, or at least rendered obvious, by five prior art references not considered by the patent examiner, and was thus invalid. BN later re-introduced these five prior art references to the Federal Circuit for consideration. Amazon’s 1-Click method shared common elements with each of the references. *Web Basket*, like Amazon, used a unique customer identifier (“cookie”) to identify the customer and stored this data on a server. It did not, however, use a one click method in a strict sense, as it did not employ a purchasing method that was shopping cart independent. The *Netscape Merchant* reference is used interchangeably with “*Creating the Virtual Store*,” by Magdalena Yesil. Both identify the same reference. The reference, in total, consists of four lines of excerpted text and reads: “*Instant Buy Option*. Merchants also can provide shoppers with an Instant Buy button for some or all items, enabling them to skip check out review. This provides added appeal for customers who already know the single item they want to purchase during their shopping excursion.”

The *Oliver’s Market* reference was also submitted by BN. Like, 1-Click, *Oliver’s Market* also made use of a cookies and employed a server to store customer information. Although it spoke of a “one click” method, it was not shopping-cart independent as claims 1 and 11 of the ’411 patent specifically require. The ’780 reference was also submitted by BN in their defense. BN argued that the ’780 reference used a “single action ordering method.” The ’780 patent covers a shopping cart-independent method that also happened to use the world wide web. This reference, unlike the 1-Click method, may re-

quire that a person “log on” before they are recognized by the navigating system. The method does not, however, involve any “ordering” per se. A debate as to the definition of “order” and the similarity of this method to the 1-Click method ensued. The district court ultimately rejected this reference as not having any bearing upon the validity of the 1-Click method. Finally, BN cited the CompuServe reference. CompuServe shares elements in common with 1-Click in that it also uses a single action ordering component. CompuServe, however, did not display items that could be purchased (as claims 1-8 and 11-26 of the ’411 patent require) and was not used on the world wide web, but through a direct modem connection. Additionally unlike the 1-Click method, CompuServe sent an order confirmation to the user. The district court concluded that these five references did not anticipate the ’411 patent under § 102, as no single references possessed all of the elements of the ’411 patent.

BN also argued that the prior art at least rendered the patent obvious under 35 U.S.C. § 103. The court concluded that, although there were similarities, none of the prior art had utilized an “ordering” component consisting of a single action. Pivotal to the court’s decision was its conceptualization of the four line excerpt of the *Netscape Merchant* publication. The court concluded that, considered within its context, the *Netscape Merchant* reference did not render Amazon’s 1-Click patent obvious. The court’s secondary considerations analysis also weighed in favor of the validity of the ’411 patent.

The district court concluded that BN failed to meet its burden of proffering “clear and convincing” evidence as to the invalidity of the 1-Click patent. The court also concluded that societal interest tipped in Amazon’s favor and thus enjoined BN from using its Express Lane feature. On appeal to the Federal Circuit, BN argued that the district court construed key claim limitations inconsistently and misunderstood the teachings of prior art references. Amazon aligned itself with the district court, arguing that the court was correct both in its claim construction and in its understanding of the prior art.

## **B. The Federal Circuit Decision**

In *Amazon*, the Federal Circuit adopted a two-step inquiry for scrutinizing the district court’s grant of a preliminary injunction. First, the Federal Circuit analyzed whether Amazon would likely prove that BN had infringed the ’411 patent. Second, the Federal Circuit considered whether Amazon’s infringement claim would “likely withstand BN’s challenge to [the ’411 patent’s] validity.” The Federal Circuit found that Amazon had demonstrated it would likely succeed in proving that BN infringed at least all four independent claims of the ’411 patent.

The Federal Circuit first reviewed the construction of the key claim limitation “single action” ordering technology. In light of the plain meaning, specification and prosecution history, the Federal Circuit agreed with Amazon in construing all four independent claims (i.e., claims 1, 6, 9, and 11) to call for the “single action” to be performed “immediately after a display of information about an item, and without any intervening action, but not necessarily immediately after the first display or every display.” Given this construction of the “single action” limitation, the Federal Circuit held that BN’s Express Lane feature would likely infringe the ’411 patent.

The Federal Circuit also rejected BN’s argument that the Express Lane feature did not infringe claim 2 of the ’411 patent because it was a shopping-cart model as defined and explicitly disclaimed by the patent. The court found that Express Lane feature could infringe claim 2 because, unlike the shopping-cart methods defined in the ’411 patent, it did not require additional checkout or confirmation steps before a request to order an item

was sent to the server. For similar reasons, the court held that BN had failed to raise a substantial question of non-infringement for claim 11.

The second phase of the Federal Circuit's analysis focused on "whether the district court correctly determined that BN failed to mount a substantial challenge to the validity of the claims in the '411 patent." The Federal Circuit criticized the district court's fact-finding, stating that the district court had committed clear factual error by misreading the five prior art references and by failing to recognize that BN had raised a substantial question of invalidity.

While the Federal Circuit did not find that any one prior reference anticipated the invention in the '411 patent, the court did find that the '411 patent would likely be found obvious in light of the prior art. In conducting the obviousness analysis, the Federal Circuit concluded that it was enough that the elements Amazon used in the 1-Click method were known or had previously existed in some form within prior art.

The Federal Circuit did not consider evidence supporting the proposition that the 1-Click method had been "taught away from" by the prior art, thus indicating nonobviousness. *United States v. Adams*, 383 U.S. 39 (1966) was one of the first cases to apply an invention's combination being "taught away from," as evidence of the nonobviousness of the invention. At the time of Amazon's invention, the e-commerce community advocated a process that led the consumer through the purchase and confirmation steps slowly in order to reduce consumer anxiety and simultaneously increase consumer confidence with regard to security. Thus, the prior art in the e-commerce industry "taught away from" the quick purchase method that the 1-Click patent claimed. Amazon offered additional evidence to support the proposition that the 1-Click method was a radical departure from the traditional approach. Though the district court cited these reasons as offering "direct evidence of nonobviousness," the Federal Circuit declined to consider evidence offered by Amazon and industry experts to show that Amazon's method had been "taught away from." The Federal Circuit found that the five prior art references did not fully anticipate or teach the Amazon 1-Click method, but reasoned that the person of ordinary skill could easily "fill in the gaps" in the prior art to come up with the Amazon method.

In its obviousness analysis, the Federal Circuit found that Amazon failed to submit any evidence of commercial success, though Amazon had presented testimony that millions of customers utilize the 1-Click method in the district court proceedings. The Federal Circuit did not consider the commercial value that BN had placed upon the 1-Click method. Additionally, the court explicitly rejected other secondary considerations which would have weighed in Amazon's favor. Unlike the district court, the court did not consider other secondary considerations—copying, success and the "problem to be solved"—as indicators of the nonobviousness of Amazon's invention.

Thus, the court found that BN had "cast enough doubt on the validity of the '411 patent to avoid a preliminary injunction." Accordingly, the Federal Circuit reversed the preliminary injunction.

### III. CONCLUSION

In the aftermath of *State Street*, the Patent and Trademark Office experienced an incredible surge in the number of business method patents being applied for and, issued. The legal system and patent law, in particular, are still attempting to wrestle out the legal ramifications that both a rapid technological advancement and subsequent legal uncertainties have introduced.

*APOTEX USA, INC. V. MERCK & CO., INC.**254 F.3d 1031 (2001)*

The issue presented to the United States Court of Appeals for the Federal Circuit was whether defendant Merck "suppressed" or "concealed" a patented process under 35 U.S.C. § 102(g).

Merck manufactures and commercially sells enalapril sodium ("VASOTEC") for use in the treatment of high blood pressure. While Merck owns patents covering the treatment compound in the U.S. and Canada, it does not own a patent on the process it uses to manufacture VASOTEC. In 1991, Merck sued Apotex's Canadian affiliate for patent infringement of the enalapril sodium compound. During this trial, Merck officials described the process used to make VASOTEC. Soon after explanation, Apotex conceived and patented the method used to make VASOTEC. Apotex then filed suit against Merck alleging Merck's infringement of the process patent. The United States District Court for the Northern District of Illinois granted Apotex's motion for summary judgment on the issue of infringement, but also granted Merck's cross-motion for summary judgment of invalidity because it found that Merck invented the claimed process within the United States and did not abandon, suppress or conceal the invention within the meaning of section 102(g).

Apotex appealed from the district court's grant of summary judgment of invalidity. In affirming the decision of the district court, the Federal Circuit clarified that actions taken outside of the United States provide sufficient evidence of an absence of suppression or concealment. The Federal Circuit further clarified the burdens of proof for demonstrating suppression or concealment under section 102(g) in a patent infringement suit. First, a party asserting patent invalidity under § 102(g) must prove facts by clear and convincing evidence establishing prior invention. Once the challenger of a patent has proven that the invention was "made in this country by another inventor," the burden of proof shifts to the patentee to produce evidence sufficient to create a triable issue of material fact as to whether the prior inventor suppressed or concealed the invention. The party defending the patent does not have to demonstrate actual suppression or concealment because to require such proof would undermine the presumption of patent validity under 35 U.S.C. § 282. Once the patentee satisfies the burden of production of a material fact of suppression or concealment, the party alleging invalidity under section 102(g) must rebut the alleged suppression or concealment with clear and convincing evidence. In this case, Apotex produced enough evidence of suppression or concealment to shift the burden to Merck because Merck kept its process of producing VASOTEC private for 5 years. However, Merck successfully rebutted this presumption because it "resumed activity" before Apotex entered into the market. Merck resumed activity by making the process public before Apotex's entrance into the market. Merck made the process public by discussing it at trial and by publishing the ingredients of the drug in its product monograph and the French dictionary. Because Merck took these steps before Apotex entered the market, the court concluded that it could be deemed to have suppressed or concealed the invention within the meaning of section 102(g).

***BAYER AG V. HOUSEY PHARMACEUTICALS, INC.***

*169 F. Supp. 2d 328 (D. Del. 2001)*

The United States District Court for the District of Delaware addressed whether the scope of 35 U.S.C. § 271(g) infringement claims extends to patented nonmanufacture processes and whether substantial royalties demanded by the patentee could conceivably constitute a patent misuse claim.

Defendant Housey Pharmaceuticals, Inc. owned four patents, U.S. Patent Nos. 4,980,281, 5,266,464, 5,688,655, and 5,877,007 (collectively, “the ICT patents”). The patents, which generally related to research methods used by pharmaceutical companies for discovering drugs, enabled companies to screen substances for active compounds that indicated a potential for pharmaceutical development. Plaintiffs filed an action against defendant Housey Pharmaceuticals and sought a declaratory judgment that the ICT patents were invalid and unenforceable. Plaintiffs alleged that the defendant’s misuse of the ICT patents was twofold: (1) defendant required plaintiffs to pay substantial royalties throughout the patents’ life for any products derived from research and development that utilized the patented technology in drug development, and (2) defendant licensed the patents with terms that they knew went beyond the claims of the patents. Defendant then filed a counterclaim of infringement. Defendant alleged that plaintiffs infringed the ICT patents under 35 U.S.C. § 271(g) whenever plaintiff sold an inhibitor or activator drug identified through the patented methods in the United States. Defendant Housey Pharmaceuticals, Inc. also alleged infringement whenever the plaintiff imported into or used within the United States knowledge or information reflecting the identification or characterization of a drug acquired from using the patented methods. Both parties filed motions to dismiss. Plaintiffs’ motion sought to dismiss defendant’s infringement claim on the theory that section 271(g) is inapplicable to patents claiming research methods. Defendant’s motion sought to dismiss plaintiffs’ claim of patent misuse.

The district court granted plaintiffs’ motion to dismiss defendant’s infringement claim and denied defendant’s motion to dismiss plaintiffs’ claim of patent misuse. The court concluded that, because section 271(g) only addresses products derived from patented manufacturing processes and the method claims of the ICT patents describe processes of identification and generation of data that are not steps in the manufacture of final drug products, section 271(g) was inapplicable to the case at hand and defendant’s infringement claim must accordingly be dismissed. The court further held that, if the statute were applicable to patents claiming screening methods or methods of use, any products subjected to those methods in foreign countries would have infringed those patents upon importation to the United States. The court concluded that plaintiffs sufficiently stated a claim of patent misuse because a rational factfinder could conceivably conclude that defendant misused the patents, given that: (1) arrangements in which a patentee effectively extends the term of its patent by requiring post-expiration royalties constitute per se patent misuse, and (2) the practices could not reasonably relate to subject matter within the scope of the patent claims.

***BREED V. HUGHES AIRCRAFT CO.****253 F.3d 1173 (9th Cir. 2001)*

The Ninth Circuit ruled on the issue of appellate jurisdiction in actions arising in part under the patent law.

Breed, an inventor who performed consulting work for Hughes, brought suit against Hughes after Hughes allegedly breached an oral agreement. The suit was originally filed in state court of Texas, and later transferred to the United States District Court for the Central District of California. The complaint made thirteen California state law claims relating to breach of contract and misappropriation of trade secret, and one patent law claim for "Omission of Inventor" under 35 U.S.C. § 256. As to the section 256 claim, Breed requested that the district court issue an order requiring the amendment of the patent at issue to reflect that Breed was a co-inventor. The district court's jurisdiction was based both on diversity and on 28 U.S.C. § 1338(a), jurisdiction over a "civil action arising under any Act of Congress relating to patents." The district court granted summary judgment to Hughes on all claims. As to the omission of inventor claim, the district court found a further order from the court unnecessary because the parties had already begun the process of including Breed's name in the patent as a co-inventor.

Breed appealed. The Ninth Circuit, *sua sponte*, found that it lacked jurisdiction because the Federal Circuit had exclusive jurisdiction over appeal in actions arising under the patent law. The court noted that 28 U.S.C. § 1295(a) conferred to the Federal Circuit, exclusive jurisdiction over the entire case "if the jurisdiction of [the district] court was based, in whole or in part, on section 1338 of this title." 28 U.S.C. § 1295(a). Therefore, in a well-pleaded complaint, the presence of even a single claim arising under the patent law, regardless of its significance to the litigation or how rigorously it was pursued, acts as an "on switch" for Federal Circuit jurisdiction. The court noted an exception to this rule: where a district court grants the plaintiff's unopposed motion to voluntarily dismiss a patent claim early in the litigation, the Federal Circuit does not have jurisdiction over the appeal. However, because Breed never moved to dismiss the patent claim in the district court, the exception did not apply. Although Breed tried to abandon the co-inventor claim after the court raised jurisdiction issue, the court found it irrelevant whether the claim was abandoned or even appealed. The court was also aware of the hardship to the parties if the appeal were to be transferred to the Federal Circuit, but noted that it was not a factor to be considered when deciding subject matter jurisdiction. The court cautioned that litigants should be mindful of the pleading pitfall occasioned by the Federal Circuit's jurisdiction statute while drafting a complaint.

***FESTO CORP. v. SHOKETSU KINZOKU KOGYO KABUSHIKI CO.***

*234 F.3d 558 (Fed. Cir. 2000) (en banc)*

In this en banc decision, the Federal Circuit held that an amendment to a patent claim element made for any reason related to patentability completely bars application of the doctrine of equivalents to that element.

Festo Corp. sued Shoketsu in the United States District Court for the District of Massachusetts, alleging infringement of two patents on magnetically coupled rodless cylinders. After several trials and appeals, the Federal Circuit chose to hear the case en banc and addressed five questions.

First, the court considered whether, for prosecution history estoppel purposes, an amendment made for “a substantial reason related to patentability,” as defined in *Warner-Jenkinson Co. v. Hilton-Davis Chemical Co.*, 520 U.S. 17 (1997), is limited to amendments made to overcome rejections under 35 U.S.C. § 102 or § 103. The court ruled that prosecution history estoppel applies not only to amendments made for reasons related to novelty and nonobviousness under sections 102 and 103, but also to amendments related to patentable subject matter or utility under 35 U.S.C. § 101, or the disclosure requirements of 35 U.S.C. § 112.

Second, the court considered whether a “voluntary” claim amendment could create prosecution history estoppel. The court ruled that the doctrine of prosecution history estoppel applied equally to “voluntary” amendments as to those required by a patent examiner.

Third, the court considered whether prosecution history estoppel would serve as a complete bar to a finding of infringement under the doctrine of equivalents. In ruling that amendments related to patentability completely bar the a finding of infringement under the doctrine of equivalents, the court attempted to reconcile two divergent lines of Federal Circuit authority. In *Hughes Aircraft Co. v. United States*, 717 F.2d 1351 (Fed. Cir. 1983), the court had adopted a flexible bar that allowed a limited range of equivalents. In contrast, the court in *Kinzenbaw v. Deere & Co.*, 741 F.2d 383 (Fed. Cir. 1984), held that prosecution history estoppel completely barred any range of equivalents for a claim element amended for reasons related to patentability. While most decisions have followed the flexible bar approach of *Hughes*, the court found that the notice function of patents and the need for greater certainty in patent litigation favor the complete bar approach.

Fourth, the Federal Circuit considered what range of equivalents, if any, is available for a claim element that is amended with no explanation, thus invoking the presumption of prosecution history estoppel under *Warner-Jenkinson*. The majority ruled that the doctrine of equivalents is not available for amendments that are not explained in the file history.

Finally, the Federal Circuit reached the question of whether application of the doctrine of equivalents in *Festo* would violate the “all elements” rule of *Warner-Jenkinson*. The court held that it was unnecessary to decide the issue in light of the available record. The court proceeded to apply its holding to the facts in *Festo*, and reversed the grant of summary judgment and jury verdict of infringement under the doctrine of equivalents.

On June 18, 2001, the United States Supreme Court granted *certiorari*. The Court heard oral arguments on January 8, 2002. At the time of publication, the Court had not yet issued its decision.

*GROUP ONE, LTD. V. HALLMARK CARDS, INC.*

*254 F.3d 1041 (Fed. Cir. 2001)*

The United States Court of Appeals for the Federal Circuit ruled on whether negotiations to sell an invention that do not rise to the level of a formal offer to sell trigger the on-sale bar rendering a patent invalid under 35 U.S.C. § 102(b). The court held that for an offer to be considered for an on-sale bar, it must constitute a commercial offer for sale under generally understood contract law.

Before filing a device and method patent application for producing pre-curved ribbon, the plaintiff attempted to generate interest in its product by commencing a series of communications with Hallmark. Hallmark expressed some interest, but the nature of the communications between the parties was indefinite because Hallmark never signed the agreed upon Confidential Disclosure Agreement. Additionally, no specific terms such as price or quantity were discussed. Hallmark then went on to develop its own pre-curved ribbon. When Group One sued for patent infringement, Hallmark argued that its patent was invalid because the patented ribbon-curling machine and method had been "on sale" more than one year prior to the filing date of the application. The trial court found that, while the communications between Group One and Hallmark did not constitute a formal offer for sale in the contractual sense, they did constitute an offer for sale within the context of section 102(b). Section 102(b) states that "[a] person shall be entitled to a patent unless . . . (b) the invention was . . . on sale in this country, more than one year prior to the date of the application for patent in the United States." In reaching this decision, the court relied upon dicta from *RCA Corp. v. Data General Corp.*, 887 F.2d 1056 (Fed. Cir. 1989), stating that the requirements for an on-sale bar may be met by activities that do not rise to the level of a sale under traditional contract law. The district court therefore held the patents were invalid and dismissed the patent infringement claims.

Group One appealed this decision, arguing that the trial court erred in declaring its patents invalid under the on-sale bar. The Federal Circuit agreed, specifically holding that any offer to sell must rise to the level of an offer for sale in the contract sense to trigger the section 102(b) on-sale bar. The appellate court's decision was strongly influenced by the need to have a uniform national rule regarding the on-sale bar. To hold otherwise would potentially mean that a patent could be invalid in one state, when the patentee's actions amounted to an offer under the laws of that state, and valid in a second state, when the same actions did not amount to an offer under the laws of that second state. Further, the court found this outcome more desirable because courts are quite accustomed to and comfortable with determining whether a particular communication or series of communications amounts to an offer in the contract sense, and that type of determination is well established in the law. In contrast, a holding which allowed something less than a formal commercial offer to trigger the on-sale bar, would open up a "vast sea of uncertainty, and requires a whole new method of analysis, whose parameters remain ill-defined." The decision of the trial court was therefore reversed and remanded for further proceedings.

***J.E.M. AG SUPPLY, INC. V. PIONEER HI-BRED INTERNATIONAL, INC.***

*122 S.Ct. 593 (2001)*

In a case for patent infringement, the United States Supreme Court held that newly developed plant breeds are subject to utility patent protection under 35 U.S.C. § 101.

Respondent Pioneer Hi-Bred International, Inc. held seventeen utility patents related to plant breeds. Petitioner J.E.M. Ag Supply, Inc. purchased patented hybrid seeds from Pioneer, subject to a license agreement prohibiting resale of the seeds. J.E.M. resold the bags of seed. When sued for patent infringement, J.E.M. argued that two statutes, the Plant Patent Act of 1930 (“PPA”) and the Plant Variety Protection Act (“PVPA”), provided the exclusive statutory means for patent protection of plant life. The District Court for the Northern District of Iowa granted summary judgment to Pioneer, holding that neither the PPA nor the PVPA removed plant life from the subject matter of section 101. The District Court relied on *Diamond v. Chakrabarty*, 447 U.S. 303 (1980), in holding that section 101 was intended to include plant life.

The Federal Circuit affirmed the district court’s judgment. The Supreme Court granted certiorari and affirmed. With respect to the PPA, the Court reasoned that the state of plant breeding at the time of its passage in 1930 explains both the PPA’s limited applicability to asexually reproduced plants and the absence of the explicit mention of plants within section 101. The Court also agreed with the lower court’s reliance on *Diamond* as to the implicit inclusion of plants in section 101. With respect to the PVPA, the Court noted the lower requirements and protection provided by the PVPA compared to a utility patent, and held that some overlapping coverage between the two statutes is acceptable, so long as each statute reaches some distinct cases.

*LITTON SYSTEMS, INC. v. HONEYWELL INC.**238 F.3d 1376 (Fed. Cir. 2001)*

The Federal Circuit decided whether an amendment in response to a “regards his invention” rejection during patent prosecution served as a complete bar to application of the doctrine of equivalents to the amended limitation.

In 1979, Litton obtained United States Patent No. 4,142,958 (“the ‘958 patent”) claiming a process for making multi-layer optical films using an ion beam. In 1985, Litton sought reissue because the ‘958 patent was invalidated for obviousness reasons. Litton proposed an amendment to the ‘958 patent such that the multiple layers would have different refraction indexes. The examiner twice rejected the reissue application on obviousness grounds, and conditioned allowance on Litton’s amendment of its claims to limit them to what Litton regarded as its invention—use of the Kaufman-type ion beam source rather than any ion beam source. United States Reissue Patent No. 32,849 (“the ‘849 reissue patent”) was issued following the required amendment. After the expiration of a consulting agreement, one of Litton’s prior employees, Louderback, provided Honeywell with mirrors made a method similar to that described in the ‘958 patent. In 1990, Litton sued Honeywell, Louderback, and Ojai Research in the United States District Court for the Central District of California, alleging infringement of the ‘849 reissue patent, breach of licensing and consulting agreements, intentional interference with contractual relations, and intentional interference with prospective economic advantage.

The jury found the patent both valid and infringed, and found for Litton on the tort claims. The district court entered judgment as a matter of law (“JMOL”), finding that the patent was not infringed and was unenforceable for inequitable conduct, and that Litton failed to establish its state-law claims, and in the alternative, granted new trial on damages. The Federal Circuit reversed the grant of JMOL, but affirmed the grant of a new trial on damages. The United States Supreme Court vacated and remanded for reconsideration in light of *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997). On remand, the Federal Circuit held that Honeywell’s processes (which used a hollow cathode or radio frequency ion beam) did not literally infringe the ‘849 reissue because they were not identical to the claimed Kaufman-type ion beam. The Federal Circuit remanded the case to the district court for consideration of infringement under the doctrine of equivalents. The court interpreted *Warner-Jenkinson* as consistent with the proposition that prosecution history estoppel did not completely bar the application of doctrine of equivalents. Because the jury may have relied on patent infringement as the wrongful means supporting the tort claims, the Federal Circuit vacated the jury verdict and remanded for further proceedings on the state-law tort claims. On remand, the district court granted summary judgment and JMOL of noninfringement of the ‘849 reissue patent. The district court found that prosecution history estoppel precluded infringement under the doctrine of equivalents. The district court also granted JMOL in favor of Honeywell on the state-law tort claims. Litton appealed.

The Federal Circuit, in a majority opinion, affirmed in part and reversed in part. The court affirmed the finding of noninfringement under the doctrine of equivalents. The court ruled that Litton was barred by prosecution history estoppel from asserting infringement under the doctrine of equivalents. The court found that Litton’s amendment of the claim limitation “ion beam source” to “Kaufman-type ion beam source” was a direct response to a rejection under 35 U.S.C. § 112, ¶ 2 that the examiner issued for failing to claim what Litton regarded as its invention. Relying on *Festo Corp. v. Shoketsu Kinzoku*

*Kogyo Kabushiki Co.*, 234 F.3d 558, 574 (Fed. Cir. 2000), the court held that Litton's narrowing amendment was related to the patentability of the claims and therefore acted as a complete bar to the application of doctrine of equivalents to the amended limitation. The court acknowledged that in its previous decision it had articulated a flexible-bar approach, stating that an amendment during prosecution did not foreclose all application of the doctrine of equivalents, but only narrowed the scope of application. The court noted that *Festo* expressly repudiated that approach. Because of this change in controlling legal authority, the court found that the law of the case doctrine, which precluded reconsideration of an issue decided at an earlier stage of litigation, did not apply.

The court reversed the judgment on the state-law tort claims and remanded for further proceedings. The court noted that although Litton could not rely on the patent infringement claims as the wrongful means to support its tort claims, the district court should have submitted the tort claims to a jury to resolve the factual issue of whether other wrongful means existed.

***LOCKHEED MARTIN CORP. V. SPACE SYSTEMS/LORAL, INC.***

*249 F.3d 1314 (Fed. Cir. 2001)*

The Federal Circuit construed a means-plus-function claim limitation and ruled on whether the accused satellites infringed, either literally or under the doctrine of equivalents, a patent for an apparatus and method for steering a satellite.

Lockheed Martin Corporation ("Lockheed") was the assignee of United States Patent No. 4,084,772 ("the '772 patent"), which claimed a structure and method for reducing the pointing errors of a satellite via a second momentum wheel centered on the yaw axis. Particularly relevant to the instant case was limitation [b] of claim 1 of the '772 patent. Limitation [b] described the invention as "means for rotating said wheel in accordance with a predetermined rate schedule which varies sinusoidally over the orbit at the orbital frequency of the satellite whereby" achieving certain results. Lockheed brought a patent infringement suit against Space Systems/Loral, Inc. ("SSL") in the United States District Court for the Northern District of California, alleging that SSL's Intelsat VII satellites infringed claim 1 of the '772 patent. The district court granted SSL's motion for summary judgment based on a finding that limitations [b] and [f] (a limitation not considered in the present decision) were not present in the accused satellites, either literally or under the doctrine of equivalents. The district court construed the phrase "varies sinusoidally" to mean "a sine-shaped variation that passes through zero and changes direction." Accordingly, the court ruled that the SSL satellites did not literally infringe claim 1 because the speed of the accused L-Wheel did not slow to zero and reverse direction. Applying the "function-way-result" standard, the district court also ruled that the SSL satellites did not infringe claim 1 under the doctrine of equivalents because the L-Wheel did not operate in substantially the same way as the claimed invention.

On appeal, the Federal Circuit affirmed. The court noted that the first step in analyzing a means-plus-function claim limitation was to identify the claimed function. The court held that the function was properly identified as the language after the "means for" clause and before the "whereby" clause. The court next construed the meaning of the words used to describe the claimed function and upheld the district court's construction of the phrase "varies sinusoidally" as "a variation in a sine-shaped curve that passes through zero." As the final step in a means-plus-function limitation analysis, the court examined the written description to identify the structure corresponding to the function. The court characterized the sine generator and wheel electronics disclosed in the '772 patent as the structures corresponding to the function of limitation [b].

The court found that there was no literal infringement of limitation [b] because the accused L-Wheel rotated about a nonzero bias speed and therefore did not perform the identical function of limitation [b]. The court further found that Lockheed was barred from asserting infringement of limitation [b] under the doctrine of equivalents by prosecution history estoppel. The court noted that limitation [b] was amended twice during the prosecution of the '772 patent to overcome the examiner's rejection on obviousness grounds. Lockheed argued that the prosecution history did not act as a complete bar to the application of the doctrine of equivalents as to limitation [b] because the amendment merely sought to distinguish from the prior references the period over which the sinusoidal variation occurred, rather than the nature of the sinusoidal variation. The court rejected Lockheed's argument. Quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 574 (Fed. Cir. 2000), the court held that "prosecution history estoppel

acts as a complete bar to the application of the doctrine of equivalents when an amendment has narrowed the scope of a claim for a reason related to patentability.”

***MYCOGEN PLANT SCIENCE INC. v. MONSANTO CO.***

*252 F.3d 1306 (Fed. Cir. 2001)*

Mycogen owned U.S. Patent No. 5,380,831 (“the ‘831 patent”), entitled “Synthetic Insecticidal Crystal Protein Gene” and claiming synthetic plant insecticidal genes using plant-preferred codons. Mycogen also owned the progeny of the ‘831 patent, U.S. Patent Nos. 5,567,600 and 5,567,862. Mycogen brought suit against Monsanto in the United States District Court for the Southern District of California claiming infringement of the ‘831 patent. The district court granted Monsanto’s motion for summary judgment, finding the ‘831 patent invalid under 35 U.S.C. § 102(g), due to prior work done by scientists at Monsanto. The district court also found that Monsanto did not infringe the process claims under 35 U.S.C. § 271(g) because the charged process was performed prior to the issuance of the ‘831 patent, and that Mycogen could not assert infringement of the product claims under doctrine of equivalents due to prosecution history estoppel.

Mycogen appealed. The United States Court of Appeals for the Federal Circuit reversed summary judgment of invalidity, but affirmed the findings of noninfringement. The court found that genuine issues of material fact remained as to invalidity, and thus remanded the case.

The Federal Circuit found that Monsanto was not liable for infringement under 35 U.S.C. § 271(g) for selling products containing synthetic insecticidal genes made before the ‘831 patent was issued. The court stated that the plain meaning of the language of section 271(g), “a product which is made by a process patented in the United States,” suggested that to establish infringement, the process must be patented at the time the product was made. Further, the court noted that the legislative history of the statute supported the conclusion that section 271(g) did not apply to products made by a process that was not patented at the time the products were made, even though the products were sold after the issuance of the patent. Therefore, the court held that the patent must be issued and in force at the time the process was practiced and the product made for infringement to be found under 35 U.S.C. § 271(g).

The court held that Mycogen was estopped from asserting infringement under the doctrine of equivalent by statements made during the prosecution of the ‘831 patent. The court noted that, although the product claims at issue were not a result of amendment of the original claims, they were nevertheless used to replace the cancelled initial claims that defined the synthetic gene by a more broadly specified DNA sequence. The court stated that canceling and replacing claims should be treated as analogous to amending them, and therefore the prosecution history estoppel rule established in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000), applied.

*MYLAN PHARMACEUTICALS, INC. V. THOMPSON**268 F.3d 1323 (Fed. Cir. 2001)*

The United States Court of Appeals for the Federal Circuit ruled on Mylan Pharmaceutical's ("Mylan") ability to seek an injunction requiring Bristol-Myers Squibb Co. ("Bristol") to de-list its patent from the FDA's "Orange Book."

Under 21 U.S.C. § 355(a), pharmaceutical companies seeking to manufacture a new drug must file a New Drug Application (NDA) for consideration by the Food and Drug Administration ("FDA"). If the FDA approves the NDA, it publishes a listing of the drug and patents on the drug's approved aspects in Approved Drug Products with Therapeutic Equivalence Evaluations (also known as the Orange Book). Once an NDA is approved, other pharmaceutical companies wishing to market generic versions of the previously approved drug may submit an abbreviated new drug application (ANDA) pursuant to the Drug Price Competition and Patent Term Restoration Act of 1984, 21 U.S.C. §§ 355, 360cc. ANDAs may rely on the previous manufacturer's NDA by submitting data demonstrating the generic product's bioequivalence. Importantly, parties filing an ANDA must certify that (i) no relevant patent exists or was submitted to the FDA; (ii) any relevant patent has expired; (iii) the patent is set to expire on a certain date; or (iv) that the patent is invalid or not be infringed by the manufacture, sale or use of the new generic drug. Bristol owned a patent directed towards the treatment of anxiety through buspirone hydrochloride. Mylan submitted an ANDA certifying the expiration date of Bristol's patent. On the expiration date of Bristol's patent, it hand-delivered a patent that issued earlier that day to the FDA that effectively nullified the expiration date of the previous patent in the Orange Book for the purposes of ANDA filings. The United States District Court for the District of Columbia held that Mylan was entitled to declaratory relief. The district court ordered Bristol to take steps to de-list the second patent from the Orange Book and directed the FDA to approve Mylan's ANDA. Bristol appealed this order.

The United States Court of Appeals for the Federal Circuit reversed the district court's order because Mylan did not have a recognized action against Bristol. Under 21 U.S.C. § 337(a), "all such proceedings for the enforcement, or to restrain violations, of this chapter shall be by and in the name of the United States." In order for its declaratory relief action to be allowable, Mylan needed to assert a defense against a hypothetical patent infringement claim by Bristol. However, Mylan did not assert noninfringement of Bristol's patent. Instead, Mylan sought to litigate whether Bristol is barred from listing its new patent in the Orange Book because Bristol did not properly comply with the listing requirements of the FDCA. Because Mylan's action against Bristol was in essence an attempt to assert a private right of action for "de-listing" under the FDCA, it was not allowable. Private rights of action are precluded under the FDCA.

*RAPOPORT V. DEMENT**254 F.3d 1053 (Fed. Cir. 2001)*

The Federal Circuit construed the term “treatment of sleep apneas” to decide whether a method for treatment of sleep apneas was unpatentable on grounds of anticipation by prior publication.

Rapoport appealed from a final decision of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office (“BPAI”) awarding judgment of priority in favor of the respondents Dement et al., and entitling Dement et al. to a patent containing claims 1 through 13 of the U.S. Patent Application No. 07/695,325 (“the ‘325 application”). Rapoport alleged that the claims were not patentable on the grounds that they were anticipated and/or rendered obvious by a prior art reference authored by Rapoport, and published in Family Practice Recertification (“the FPR publication”).

The Federal Circuit affirmed the Board’s decision. The court ruled that the term “treatment of sleep apneas” should be narrowly construed as limited to treatment of the underlying sleep apnea disorder, rather than including treatment of anxiety and other secondary symptoms associated with sleep apnea. The court reasoned that the plain language of the term “treatment of sleep apneas” did not include treatment of anxiety associated with sleep apneas. In addition, the court noted that the written description of the ‘325 application defined “sleep apneas” as comprising symptoms other than anxiety, and the description of administration of the drug “at the hour of sleep” was consistent with treatment of the underlying sleep apnea disorder, but inconsistent with treatment of anxiety and other secondary symptoms commonly associated with sleep apnea. Further, the court noted that a general description of the invention specifically disclosed the inventive method as for “treating sleep apneas comprising obstructive, central and mixed apneas,” and the discussion about the effectiveness of the treatment was limited to its effect on the underlying sleep apnea disorder, and did not include any effect on secondary symptoms associated with sleep apnea.

Having construed the term “treatment of sleep apneas,” the court held that the FPR publication did not render the ‘325 application anticipated because the publication did not disclose administration of the drug to patients for the purpose of treating sleep apnea, but focused on the treatment of anxiety. The court acknowledged that such an explicit intent was not necessary as long as the publication described administration of the drug to a patient with sleep apnea in a therapeutically effective amount, but found that the publication lacked such description. The court rejected Rapoport’s assertion that the therapeutically effective dosage of about 20 to 40 mg of the drug at the hour of sleep, as disclosed by the ‘325 application, was encompassed by the FPR publication, which disclosed a dosage of 10 mg of the drug three times a day, and therefore the FPR publication inherently anticipated the ‘325 application. The court noted that the patients who received the 10 mg dosage three times a day were not suffering from sleep apnea. Furthermore, the court held that inherency may not be established by mere speculation. The court found that Rapoport’s inherency argument was based on the speculative assumptions that a treatment regimen of three doses a day necessarily included an administration of the drug at the hour of sleep, and that administering two 10 mg doses of the drug at unspecified hours throughout the day in conjunction with a 10 mg dose at bedtime necessarily resulted in a therapeutically effective amount for treating sleep apnea.

***ROBOTIC VISION SYSTEMS INC. v. VIEW ENGINEERING, INC.***

*249 F. 3d 1307 (Fed. Cir. 2001)*

Robotic Vision Systems (“Robotic”) is the assignee of a patent for a method that scans the leads on integrated circuit devices by the entire tray, rather than row by row. Robotic filed suit against View Engineering (“View”), claiming that View’s three-dimensional scanning machines infringed its patent. The district court and Federal Circuit upheld View’s claim that Robotic’s patent was invalid under the two part test of *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55 (1998).

The first prong of the *Pfaff* test requires the device to have been on sale for more than one year prior to patenting. This requirement was uncontested in the present case. At issue was the second prong, which considered whether the invention was also then ready for patenting. Under *Pfaff*, the inventor need not have absolute confidence that the invention will work for it to be considered ready for patenting; a device may be ready for patenting without such confidence, or without being reduced to practice, if the invention is conceptually complete.

Robotic contended that the “internal” disclosure of the invention to a co-worker should not have indicated that the device was ready for patenting and thus trigger the on-sale bar. The Federal Circuit held that a disclosure of the invention that is sufficient to enable a person skilled in the art to practice the invention would satisfy the second prong of the *Pfaff* test. The court found that it was irrelevant whether the software required to implement the scanning method existed at the time of the disclosure, so long as the invention could have been reduced to practice before the critical date (i.e., one year before the filing date).

***S3 (SONIC BLUE) INC. V. NVIDIA CORP.***

*259 F.3d 1364 (Fed. Cir. 2001)*

The Federal Circuit ruled that a claim is definite if a person skilled in the art can understand it with the aid of the specification. The court also held that the patent does not have to provide a technical explanation that can be understood by person experienced in the field.

Plaintiff S3 owns U.S. Patent No. 5,581,279 (“the ‘279 patent”) which claims an integrated circuit for use in computer video color displays. The ‘279 patent claims a novel monolithic circuit in which a programmable clock signal generator circuit, a VGA controller circuit, and a combination random-access memory/digital-to-analog converter are integrated on a single chip. The ‘279 patent described two modes of operation. In the “direct color” mode, pixel data is transmitted directly from the VGA controller to a digital-to-analog converter (“DAC”) for display. In the “indexed” mode, the data output from the controller is input in a random access memory (“RAM”) array structured as a look-up table.

The United States District Court for the Northern District of California granted summary judgment in favor of nVIDIA, holding that claims 1-4 and 9-11 of the ‘279 were invalid for claim indefiniteness. The district court held that the patent was indefinite because it was inconsistent for the ‘279 patent to use the term “video information stream” to describe both the information DAC receives directly from the VGA that which is processed by RAM before moving to the DAC. Further, the district court held that the claim limitation “means...for selectively receiving” was indefinite because the “structure claimed by the ‘selectivity’ limitation is not disclosed in the specification.”

S3 appealed. The Federal Circuit reversed and remanded for further proceedings. The court found both claim elements, the video information data stream and selector, to be sufficiently definite. Federal Circuit noted that the purpose of the claim is not to explain the technology or how it works, but to state the legal boundaries of the patent. A claim is not indefinite simply because it is hard to understand when viewed without the benefit of the specification. The court found that the specification explained that VGA produces “video information data stream,” and RAM receives it and produces “video display information data stream.” The court concluded that a person skilled in this field would understand the meaning and scope of the data streams as set forth in the claims. Therefore, it was not indefinite. The Federal Circuit held that patents need not include subject matter that is known in the field of the invention or in the prior art, because patents are written by and for persons experienced in the field of invention. The court noted that to hold otherwise would require every patent to include a technical treatise for the unskilled reader. The uncontested evidence indicated that a selector is a well-known electronic structure that performs a common electronic function and is readily implemented from the description in the specification. Thus, the Federal Circuit held the claims of the ‘279 sufficiently definite.