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LORAL PATENT SURVIVES SUMMARY JUDGMENT OF INVALIDITY

Under the "rule of reason," to antedate a prior publication, an inventor's testimony must be sufficiently corroborated by independent evidence, but not necessarily documentary evidence. *Loral Fairchild Corp. v. Matsushita Elec. Indus. Co.*, No. 00-1487 (Fed. Cir. Sept. 21, 2001) 1

CLAIM CONSTRUCTION LIMITED TO CONVENTIONAL PRINTING TECHNIQUES AT TIME OF PATENT FILING

Because ink-jet printing was not a conventional method of printing images on foodstuffs at time of patent application, "screen printing" may not be construed to cover ink-jet printing. *Kopykake Enters., Inc. v. Lucks Co.*, No. 01-1015 (Fed. Cir. Sept. 10, 2001) 1

PTO'S ACTION SAVES PATENT FROM INVALIDITY

PTO's retention of one claim in continuation application for filing purposes, even though instructed to cancel all claims, preserves claim of priority to antedate prior art. *Exxon Corp. v. Phillips Petroleum Co.*, No. 00-1173 (Fed. Cir. Sept. 20, 2001) 2

COURT RECOGNIZES RIGHT TO "REPAIR" A PATENTED PRODUCT EVEN IF IT IS NOT BROKEN

A purchaser has a right to replace or modify an unpatented component for any reason, not just for repairing a worn or broken part, so long as there is not a reconstruction that creates a new article. *Surfco Haw. v. Fin Control Sys. Pty, Ltd.*, No. 00-1356 (Fed. Cir. Sept. 5, 2001) 3

INEQUITABLE CONDUCT RENDERS SOFA PATENT UNENFORCEABLE

The intent element of inequitable conduct is usually proven by inferences drawn from facts, with the collection of inferences permitting a confident judgment that deceit has occurred. *GFI, Inc. v. Franklin Corp.*, No. 00-1268 (Fed. Cir. Sept. 7, 2001) 3

NO SPECIAL RULE OF CLAIM CONSTRUCTION FOR NONNUMERICALLY LIMITED DESCRIPTIVE CLAIM TERMS

No estoppel or laches where accused fails to show prejudice. *Ecolab, Inc. v. Envirochem, Inc.*, No. 00-1402 (Fed. Cir. Sept. 6, 2001) 4

"OR" EXCLUDES BOTH

Claim term "or" construed to include only one of two recited alternatives; therefore, no infringement. *Kustom Signals, Inc. v. Applied Concepts, Inc.*, No. 99-1564 (Fed. Cir. Sept. 5, 2001) . . . 4

Y2K PATENT INVALID

Claimed alternatives anticipated by disclosure of only one of the alternatives. *Brown v. 3M*, No. 00-1552 (Fed. Cir. Sept. 18, 2001) 5

COURT AFFIRMS HOLDING OF WILLFUL INFRINGEMENT OF CATHETER PATENT

Statements from related prosecution history not relevant where they concern limitations not found in asserted claims. *Advanced Cardiovascular Sys., Inc. v. Medtronic, Inc.*, No. 00-1417 (Fed. Cir. Sept. 10, 2001) 5

CLAIMS TO ELECTRICAL STEEL COMPOSITION FOUND OBVIOUS

Evidence supports obvious combination of antimony additive to annealing operation for producing cold-rolled steel. *In re Inland Steel Co.*, No. 00-1143 (Fed. Cir. Sept. 19, 2001) 6

QUESTIONS REMAIN CONCERNING CAPABILITIES OF ACCUSED SOFTWARE

Court finds genuine issue of fact concerning operation of accused virus-scanning software under normal operating conditions. *Hilgraeve Corp. v. Symantec Corp.*, No. 00-1373 (Fed. Cir. Sept. 17, 2001) 7

CLAIMS ANTICIPATED BY INHERENT FEATURES OF PRIOR ART

The discovery of a previously unappreciated property of a prior art composition or of a scientific explanation for the prior art's functioning does not render the old composition patentably new. *EMI Group N. Am., Inc. v. Cypress Semiconductor Corp.*, No. 00-1508 (Fed. Cir. Sept. 21, 2001) 8

"MAGIC WORDS" UNNECESSARY IN SETTLEMENT AGREEMENT FOR COURT TO RETAIN JURISDICTION TO ENFORCE AGREEMENT

Relevant language of settlement agreement and dismissal order manifests Court's intent to retain jurisdiction. *Schaefer Fan Co. v. J&D Mfg.*, No. 00-1545 (Fed. Cir. Sept. 7, 2001) 9

FEDERAL CIRCUIT FINDS NATURAL GAS PATENTS DEFINITE

Court finds support in specification to guide one of ordinary skill in the art to understand claims. *Exxon Research & Eng'g Co. v. United States*, No. 00-5077 (Fed. Cir. Sept. 19, 2001) 10

FEDERAL CIRCUIT "DIALS IN" ON TELEPHONE SECURITY DEVICE PATENT

Court affirms summary judgment of invalidity based on prior invention, given corroborating evidence to support affiant's testimony. *Sandt Tech., Ltd. v. Resco Metal & Plastics Corp.*, No. 00-1449 (Fed. Cir. Sept. 6, 2001) 11

COURT REVERSES FINDING OF INVALIDITY OF GENENTECH'S hGH PATENT

Since claim construction does not require or exclude intracellular cleavage to remove methionine, claims are enabled. *Bio-Technology Gen. Corp. v. Genentech, Inc.*, No. 00-1223 (Fed. Cir. Sept. 27, 2001) 11

DISTRICT COURTS CANNOT COMPEL PTO TO CHANGE ORDER OF INVENTORS

35 U.S.C. §§ 255 and 256 do not give district courts authority to order PTO to change the order of inventors listed on a patent. *Fina Tech., Inc. v. Ewen*, No. 00-1578 (Fed. Cir. Sept. 17, 2001) 12

COURT REMANDS CASE CONCERNING LEAF BLOWER PATENT FOR TRIAL ON DOCTRINE OF EQUIVALENTS

Genuine issues as to the insubstantiality of differences concerning the functions performed by the claim and the accused leaf blower, which must be determined by a jury. *Toro Co. v. White Consol. Indus., Inc.*, No. 00-1561 (Fed. Cir. Sept. 24, 2001) . . 12

INFRINGEMENT ACTION DISMISSED FOR LACK OF PERSONAL JURISDICTION

Plaintiff fails to show minimum business contacts between out-of-state Defendants and New York state. *Piecznik v. Dyax Corp.*, No. 00-1519 (Fed. Cir. Sept. 17, 2001) 13

"GNARLY" HOLDING OF NONINFRINGEMENT ON SURFBOARD PATENT

Infringement issue turns on proper interpretation of "lateral" and "side" concerning fixing elements for removable surfboard fin. *Fin Control Sys. Pty, Ltd. v. OAM, Inc.*, No. 00-1516 (Fed. Cir. Sept. 12, 2001) 13

SECTION 102(g) APPLIES DESPITE PRIOR INVENTOR'S UNAWARENESS OF INVENTION'S PATENTABILITY

To establish prior invention, the prior inventor need not establish that he was the first to appreciate the patentability of the invention. He need only show that he appreciated the fact of what he made. *Dow Chem. Co. v. Astro-Valcour, Inc.*, No. 01-1003 (Fed. Cir. Sept. 28, 2001) 14

Loral Patent Survives Summary Judgment of Invalidity

Vince Kovalick

[Judges: Michel (author), Mayer, and Newman (concurring)]

In *Loral Fairchild Corp. v. Matsushita Electrical Industrial Co.*, No. 00-1487 (Fed. Cir. Sept. 21, 2001), the Federal Circuit reversed a SJ of invalidity of claim 1 of U.S. Patent No. 3,931,674 ("the '674 patent") and remanded for further proceedings.

The '674 patent concerns a process for manufacturing a charge-coupled device ("CCD"). This case continues what has been more than a decade of litigation between Loral Fairchild Corporation ("Loral") and numerous Japanese electronics manufacturers and their U.S. subsidiaries, in which Circuit Judge Rader has been sitting by designation since 1995. In another decision, the Federal Circuit has recited the procedural history and affirmed a JMOL that Sony Corporation and its U.S. subsidiary did not infringe the '674 patent. *Loral Fairchild Corp. v. Victor Co. of Japan*, 181 F.3d 1313 (Fed. Cir. 1999). Loral then maintained its action against the only remaining manufacturing Defendants that it believed were literally infringing the '674 patent, Toshiba and NEC.

The district court, after a two-day hearing concerning motions for SJ of invalidity, found claim 1 of the '674 patent invalid based on a prior publication ("the Erb reference"). Although the Erb reference had been used at the Sony trial, it did not form a basis for the holdings in that case, and in this case, the district court had allowed the parties to both submit new evidence and rely upon the evidence submitted during the Sony trial.

Loral submitted evidence that the inventor of the '674 patent, Dr. Gilbert Amelio, had conceived the invention and actually reduced it to practice prior to the publication of the Erb reference. Dr. Amelio's prior conception is not disputed. However, the critical question is whether Loral's evidence was sufficient to raise a genuine issue as to whether Dr. Amelio had actually reduced the invention to practice prior to the publication of the Erb reference on December 3, 1973.

In the present case, Dr. Amelio submitted an affidavit executed in April 2000 in which he states that the invention was reduced to practice shortly after September 14, 1973, but no later than mid-October 1973—when Loral had initial production quality devices. The district court had concluded that Dr. Amelio's affidavit asserted only that he was working on a reduction to practice in June 1973 through mid-March 1974.

The Federal Circuit reversed, highlighting Dr. Amelio's specific statement that by September 14, 1973, Fairchild had produced working devices and

established that the '674 patent process would work for its intended purpose. The Court ruled that a district court may not assess the credibility of testimony when granting SJ. Thus, because the Amelio affidavit asserts a reduction to practice prior to publication of the Erb reference, the only issue becomes whether Loral submitted independent evidence sufficient to collaborate this assertion.

Loral pointed to evidence from the Sony trial to collaborate Dr. Amelio's testimony. Specifically, Dr. David Wen had testified that Loral received masks necessary to practice the invention on or about September 14, 1973, the date stamped on the masks. Loral also pointed to a proposal to the U.S. Air Force as evidence showing that the claimed process was already showing reliable performance and high yield in November 1973.

The Federal Circuit ruled that the district court's insistence upon documentary evidence to corroborate test results of the alleged reduction to practice was erroneous as a matter of law. Under the "rule of reason," the Court explained, the inventor's testimony must be sufficiently corroborated by independent evidence, but not necessarily documentary evidence. Having found the grant of SJ improper, the Federal Circuit declined to rule on the correctness of the district court's conclusion concerning obviousness based on the Erb reference and remanded for further proceedings.

Judge Newman concurred, but wrote separately to explain why the majority's opinion was not new law with respect to the requirements for antedating a publication. Judge Newman explained that the evidentiary standard for antedating a reference is not the same as the PTO requirement for establishing priority in an interference contest.

Claim Construction Limited to Conventional Printing Techniques at Time of Patent Filing

M. Andrew Holtman

[Judges: Dyk (author), Rader, and Schall]

In *Kopykake Enterprises, Inc. v. Lucks Co.*, No. 01-1015 (Fed. Cir. Sept. 10, 2001), the Federal Circuit affirmed the district court's DJ that the Kopykake Enterprises, Inc.'s ("Kopykake") method of ink-jet printing is outside the scope of U.S. Patent No. 5,017,394 ("the '394 patent") assigned to The Lucks Company ("Lucks") and, therefore, does not infringe.

The '394 patent relates to a method for decorating foodstuffs with pictorial images. The method of claim 1, the claim at issue, comprises making a thin edible base shape, similar to a sheet of paper, and decorating the edible base shape with an image by screen

printing. The base shape containing the image is contacted to the desired food item, such as cakes, cookies, and ice cream, whereby the base shape adheres, delivering the image to the food.

On appeal, Lucks challenged the district court's claim construction of the term "screen printing" as contained in claim 1. The district court had determined that language within the '394 patent specification provided a definition of screen printing that included any other conventional printing processes for applying pictorial images to edible base shapes at the time the '394 patent application was filed. The district court had further found that this broader definition also fell short of capturing ink-jet printing, since ink-jet printing was only an emerging technology at the time the '394 patent application was filed and certainly was not commonplace in the food industry.

The Federal Circuit affirmed the district court's holdings, noting that the literal scope of a claim is limited to what it was understood to mean at the time of filing even where that meaning is narrower than the current definition.

Lucks argued that the Examiner's citation during the prosecution of the '394 patent to U.S. Patent No. 4,548,825 ("the '825 patent"), which describes the use of ink-jet printing for printing onto pharmaceutical tablets, demonstrated that the Examiner understood "conventional printing processes" to include ink-jet printing. The Federal Circuit rejected this argument, however, concluding that Lucks had introduced no example of an ink-jet printer for use in printing images onto food at the time of filing the '394 patent, and the '825 patent was cited by the Examiner only as "art of interest." Accordingly, the Federal Circuit held that a conventional method of screen printing images onto food at the time the '394 application was filed could not be construed to include ink-jet printing and affirmed the DJ of noninfringement.

PTO's Action Saves Patent from Invalidity

John M. Williamson

[Judges: Newman (author), Friedman, and Linn]

In *Exxon Corp. v. Phillips Petroleum Co.*, No. 00-1173 (Fed. Cir. Sept. 20, 2001), the Federal Circuit reversed a district court's grant of SJ of invalidity of U.S. Patent No. 5,324,800 ("the '800 patent") and affirmed the court's decision to strike "interference estoppel" as a defense to infringement.

Exxon Corporation's ("Exxon") '800 patent, directed to metallocene catalysts, issued from an application filed on August 30, 1991. This application, the fourth in a chain of continuing applications, claimed priority to three earlier filed applications and claimed an effective filing date of June 6, 1983.

Exxon's European Patent Application, containing the same text as the '800 patent, was published on December 27, 1984. Phillips Petroleum Company ("Phillips") moved for SJ of invalidity, arguing that under 35 U.S.C. § 102, due to a break in the chain of copending continuing applications, Exxon's '800 patent is not entitled to a June 6, 1983, filing date. Thus, without the benefit of the June 6, 1983, filing date, the foreign publication renders the '800 patent invalid under 35 U.S.C. § 102(b).

The district court had granted Phillips's motion for SJ of invalidity, finding a break in the chain of copendency between Exxon's third and fourth applications. Exxon filed its fourth application as a continuation of its third application. However, Exxon instructed the PTO to cancel all claims of the prior application, leaving no claims in the fourth application as filed. Rather than follow Exxon's instruction, the PTO retained claim 1 for filing purposes and cancelled the remainder of the claims in the fourth application. Exxon abandoned its third application before adding more claims to its fourth application. The district court had held that the PTO lacked authority to retain claim 1 for filing purposes and, therefore, the copendency between Exxon's third and fourth applications was lost upon abandonment of the third application.

On appeal, Exxon argued that the PTO had acted within its administrative authority in preserving one claim for filing purposes. The Federal Circuit agreed, affording judicial deference to the PTO's choice of procedures in the absence of a statutory or regulatory restraint on the PTO's authority. After acknowledging several established procedures allowing the PTO to modify or ignore erroneous instructions from an applicant, the Federal Circuit specifically determined that the PTO is authorized to modify an applicant's plainly incorrect instruction so that an application includes at least one claim in compliance with 35 U.S.C. § 112. Because the PTO's action preserved the copendency between Exxon's third and fourth applications, Exxon's published foreign application does not serve as a § 102(b) invalidating reference. Accordingly, the Federal Circuit reversed the district court's SJ grant of invalidity and remanded the case for further proceedings.

The Federal Circuit next considered Phillips's conditional cross appeal regarding its interference estoppel defense. During an interference proceeding, the Examiner had designated certain of Exxon's claims as subject to rejection if priority were lost as to the interference count. While the interference count was limited to unsubstituted metallocene catalysts, the designated claims covered both substituted and unsubstituted metallocene catalysts. Upon losing the interference, Exxon continued to prosecute only its claims directed to substituted metallocene catalysts. Phillips argued that because Exxon did not file a motion during the interference seeking the redesignation of its claims covering substituted metallocene catalysts, Exxon was

estopped from continuing to prosecute these claims.

Observing that no court has ever recognized interference estoppel as a ground for patent invalidity and recognizing that the defenses of invalidity and unenforceability remain available to Phillips without inquiry into the interference procedure, the Federal Circuit affirmed the district court's decision to strike the defense of interference estoppel.

Court Recognizes Right to "Repair" a Patented Product Even If It Is Not Broken

Steven H. Morrisett

[Judges: Newman (author), Mayer, and Rader]

In *Surfco Hawaii v. Fin Control Systems Pty, Ltd.*, No. 00-1356 (Fed. Cir. Sept. 5, 2001), the Federal Circuit reversed the District of Hawaii's SJ in favor of the owner of a patent on a surfboard with removable fins, granting SJ instead to its competitor to continue selling replacement fins for the patented surfboard.

Fin Control Systems Pty, Ltd. ("Fin Control") patented a "surf craft" with releasable fins. The patent describes a surfboard whose fins releasably attach to the board by inserting tabs on the fins into openings in the surfboard and securing the fins to the board with screws. Surfco Hawaii ("Surfco") made and sold fins to use on Fin Control's surfboards that were distinguished solely by their rubber edges, which Surfco promoted as a safety feature. Surfco brought a DJ action in the U.S. District Court of Hawaii seeking SJ that its replacement fins were akin to a "permissible repair" by surfboard owners and, therefore, not infringing.

Fin Control argued that Surfco's products could not be a "repair," because the original fins were in good working condition and did not need to be replaced. The district court agreed with Fin Control that, because Surfco's fins were not sold for "repair" of worn or broken fins, but were sold instead for safety reasons, Surfco had created an incentive for surfboard owners to replace unworn fins and was liable for contributory infringement and inducing infringement.

The Federal Circuit observed that because the first sale of a patented product exhausts a patent owner's right to control disposition of a product after a sale, a purchaser of the product may lawfully replace unpatented components of the product so long as it does not result in making a new article that infringes the patent.

The Court stated that although the extension of the useful life of an article is the usual reason for modification or replacement of components, it is not the only reason. It recognized that the purchaser of a patented product has a right to replace or modify an

unpatented component for any reason, not just for repairing a worn or broken part, so long as there is not a "reconstruction" that creates a new article.

Against this background, the Court ruled that in this case, substitution of different fins does not "recreate" the patented surfboard and, therefore, an owner who modifies a surfboard by substituting the Surfco fins does not infringe. Because a purchaser of a Fin Control surfboard may replace its fins regardless of whether they are broken or worn without infringing the patent, Surfco's sale of replacement fins can be neither an inducement of infringement nor contributory infringement.

Inequitable Conduct Renders Sofa Patent Unenforceable

Timothy B. Donaldson

[Judges: Mayer (author), Newman, and Clevenger]

In *GFI, Inc. v. Franklin Corp.*, No. 00-1268 (Fed. Cir. Sept. 7, 2001), the Federal Circuit affirmed a district court's decision holding GFI, Inc.'s ("GFI") U.S. Patent No. 5,064,244 ("the '244 patent") unenforceable for inequitable conduct.

The '244 patent is directed to a sectional sofa. The sofa has a pair of reclining seats separated by a fixed console containing a control means for the reclining seats. During prosecution of the '244 patent, GFI spoke with Walter Durling, a furniture designer who crafted a loveseat unit having two recliners joined by a console. Durling had filed a patent application directed to the loveseat two months before the '244 patent application was filed. GFI's discussions with Durling focused on his conception and reduction to practice of the loveseat design. Although Durling's application did not specify that the console contained the control means for the recliners, several months before filing his invention, the inventor of the '244 patent had seen a model of the Durling furniture with console-mounted controls.

On appeal, GFI argued that the district court had improperly forced it to disclose privileged information to Franklin Corporation ("Franklin"). Applying Fifth Circuit law, the district court had found that GFI had waived the attorney-client privilege when its patent attorney testified during an earlier trial about his state of mind, knowledge of prior art, and communications with his client. The Federal Circuit agreed that waiver of attorney-client privilege was a procedural question to be decided under regional circuit law and found no error with the district court's decision to release the allegedly privileged information.

During prosecution of the '244 patent, GFI failed to disclose to the PTO the Durling application or the Durling model having the console-mounted controls.

GFI argued that Durling cannot be material because it was not prior art. But according to the Federal Circuit, Durling's status as prior art is not dispositive of its materiality. Furthermore, like the district court, the Federal Circuit found that GFI had a duty to disclose the potential priority conflict to the PTO and should not have unilaterally determined that the Durling references were not prior art. Thus, the Federal Circuit concluded that the district court properly found the Durling references material. As GFI did little more than deny any intent to deceive, the Federal Circuit also upheld the district court's finding that GFI proved the threshold deceptive intent by clear and convincing evidence. Finding no abuse of discretion by the district court, the Federal Circuit affirmed the lower court's conclusion that the claims of the '244 patent were unenforceable due to inequitable conduct.

No Special Rule of Claim Construction for Nonnumerically Limited Descriptive Claim Terms

Leslie A. McDonnell

[Judges: Newman, Friedman, and Linn (author)]

In *Ecolab, Inc. v. Envirochem, Inc.*, No. 00-1402 (Fed. Cir. Sept. 6, 2001), the Federal Circuit vacated a district court's grant of SJ of literal infringement as being based on an erroneous construction of the claim term "substantially uniform" and remanded to the district court for further proceedings. The Federal Circuit affirmed the district court's determination that neither equitable estoppel nor laches applies against Ecolab, Inc. ("Ecolab") because Envirochem, Inc. ("Envirochem") had not alleged, and the record did not show, that Envirochem had suffered prejudice.

Ecolab sued Envirochem for infringement of U.S. Patent No. Re. 32,818 ("the '818 patent") relating to a solid detergent cast for use in commercial dishwashing machines. In denying a motion for preliminary injunction, the district court initially interpreted the claim term "substantially uniform" as describing a cast in which the concentration of alkalinity and phosphates may vary between 0.0 percent and 6.6 percent based on data presented to the PTO during prosecution. As a result of this claim construction, Envirochem moved for SJ of noninfringement.

The case was then reassigned to a different judge who reconstructed the claims and denied Envirochem's motion. Under the new claim construction, the term "substantially uniform" was found to mean "a level of continuity of the elements from top-to-bottom throughout the cast such that a homogeneous cleaning solution is formed over the life of the cast." The district court then granted Ecolab's motion for SJ of literal infringement.

While the Federal Circuit agreed that no basis exists for inferring a numerical limitation into the term "substantially uniform," it held that the district court,

upon reconstructing the claims, improperly had read a functional limitation into the term. Specifically, the Federal Circuit found that the district court's construction of "substantially uniform" erroneously defined the term according to the purpose of the invention, did not give the term its ordinary and accustomed meaning, and did not recognize the proper relevance and effect of an affidavit submitted during prosecution.

The Federal Circuit noted that when the intrinsic evidence does not provide a special meaning for a claim term, the term is to be given its ordinary and accustomed meaning. It also noted that the term "substantially uniform" expressly modifies the term "alkaline detergent" and, thus, is not tied to any overall function of the detergent. Next, the Federal Circuit reviewed an affidavit submitted during prosecution of the '818 patent to distinguish the claims from the prior art. The distinction was based on measuring the concentrations of ingredients in the top and bottom quarters of the casts, not by measuring the homogeneity of the cleaning solution formed after spraying the exposed surface of the cast with water. The Federal Circuit emphasized that all express representations made by or on behalf of the applicant to the Examiner to induce a patent grant limit the interpretation of the claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.

As a result of its analysis, the Federal Circuit determined that the term "substantially uniform" as related to the "alkaline detergent cast" means "largely, but not wholly the same in form" or "very near consistency of elements from top-to-bottom throughout the cast" and remanded the case to the district court to determine whether Envirochem's products literally infringe the claims under this construction. The Federal Circuit pointed out that the limitation "substantially uniform" narrowed the scope of the claim and was added to the claim by amendment for a reason relating to patentability. Thus, the Federal Circuit concluded that prosecution history estoppel bars a finding of infringement under the DOE as to the "substantially uniform" limitation.

As to laches and estoppel, the Federal Circuit ruled that the hiring of new employees, modification of equipment, and engagement in sales and marketing activities are damages normally associated with a finding of infringement and do not constitute the type of damages necessary for a finding of economic prejudice.

"Or" Excludes Both

John A. Hudalla

[Judges: Newman (author), Lourie, and Mayer (dissenting)]

In *Kustom Signals, Inc. v. Applied Concepts, Inc.*, No. 99-1564 (Fed. Cir. Sept. 5, 2001), the Federal Circuit found that the word "or" covered only one of

two alternatives, but not both, and, accordingly, affirmed the district court's grant of SJ of noninfringement regarding U.S. Patent No. 5,528,246 ("the '246 patent").

The patent-in-suit involved traffic radar equipment having digital-signal processing capabilities for determining the speed of a target vehicle. In these radar systems, speed is determined by measuring signals reflected from a target vehicle, where larger targets generally produce a stronger reflected signal and faster targets generally produce a reflected signal at a higher frequency. The digital processing aspects of such radar systems allow a system to discern between, for example, a large truck and a speeding car based on the frequency and/or amplitude of a received signal.

The patent-in-suit claimed a radar device with a user-selectable mode wherein the user could select between identifying and displaying the speed of a slower target with a stronger signal and a faster target with a weaker signal. Some early processing steps of the patented invention manipulated both strongest and fastest data, while later processing steps only manipulated data associated with the selected mode. In particular, the claim language of the '246 patent included the disjunctive words "or" and "either-or" for describing the divergence of processing steps related to these user-selectable modes.

The accused device had no user-selectable mode, as it always analyzed both strongest and fastest signals returned to the radar device. The user could then select between displaying the speed associated with the strongest signal or the speeds associated with both the fastest and strongest signals. The patentee alleged that the claims of the '246 patent read on the accused device regardless of the disjunctive words used in the patent claims.

The Federal Circuit first construed the claims of the '246 patent. In doing so, it looked to the specification to determine whether the term "or" as used in the claims should restrict the claims scope to identifying and displaying *either* the faster target data *or* the strongest target data, *but not both*, as was found by the district court. The Federal Circuit found that the specification did not describe any embodiment that searches for and displays both modes and that the "or" language was added during prosecution. Therefore, the Court affirmed the construction that the "or" and "either-or" language of the patent claims excludes from their scope the identification and display of *both* strongest *and* fastest analyzed target data.

Applying its construction to the accused product, the Court found that the accused product did not literally infringe because it always analyzed and displayed the fastest and strongest target data.

As to the DOE, the Court noted that the "all elements rule" did not apply to the term "or" in the present invention because the word "or" was not itself an "element" of the apparatus claim. Nevertheless, the Court upheld the district court's alternative findings based on prosecution history estoppel and differences

in the functions performed by the claims and the accused product and the ways in which they operate.

Judge Mayer dissented, stating that the term "or" should be construed to mean "either or both," given the teachings of the patent.

Y2K Patent Invalid

Lara C. Kelley

[Judges: Newman (author), Clevenger, and Mayer (dissenting)]

In *Brown v. 3M*, No. 00-1552 (Fed. Cir. Sept. 18, 2001), the Federal Circuit affirmed a SJ that claim 16 of U.S. Patent No. 5,852,824 ("the '824 patent") is invalid under 35 U.S.C. § 102.

The '824 patent, owned by Dr. Roger Brown, is directed to the Year-2000 problem, and specifically to a system for correcting year-date data in a computer database. Claim 16 of the '824 patent is directed to a system for setting a computer clock to an offset time, applicable to records with year-date data "represented by at least one of two-digit, three-digit, or four-digit year-date representations."

The district court had construed this limitation of claim 16 to mean that the apparatus could convert only two-digit; only three-digit; only four-digit; or any combination of two-, three-, and four-digit date data. Thus, the district court held claim 16 to be anticipated under 35 U.S.C. § 102 by U.S. Patent No. 5,600,836 ("the '836 patent"), which discloses correcting year-date data in two-digit format.

The Federal Circuit agreed with the district court's construction of claim 16, noting that it is in accord with the plain meaning of the claim text. The Court accepted Brown's argument on appeal that the '836 patent does not teach correction of other than two-digit, year-date data, but concluded that because claim 16 is written in the alternative, it is clearly anticipated under § 102 by the disclosure of a system correcting only two-digit, year-date data.

Judge Mayer dissented, concluding that the claim required the system to have the capacity to correct year-date data in two-digit, three-digit, and four-digit format.

Court Affirms Holding of Willful Infringement of Catheter Patent

Laural S. Boone

[Judges: Linn (author), Bryson, and Gajarsa]

In *Advanced Cardiovascular Systems, Inc. v. Medtronic, Inc.*, No. 00-1417 (Fed. Cir. Sept. 10, 2001), the Federal Circuit affirmed a district court's SJ that claim 3 of Advanced Cardiovascular Systems, Inc.'s

("ACS") U.S. Patent No. 5,451,233 ("the '233 patent") was valid and enforceable, and that Medtronic, Inc. ("Medtronic") had willfully infringed the '233 patent.

The '233 patent claim at issue recites an elongated balloon dilation catheter with a guidewire/lumen configuration that enables a rapid exchange of the catheter when needed. The disputed issue was the physical connection between the balloon catheter and the guidewire. The '233 patent has, as a preferred embodiment, the guidewire running through the inside of the balloon, giving a cylindrical shape and a "coaxial" configuration. In contrast, Medtronic's accused catheter has a guidewire that runs along the outside of the balloon, termed a "side-by-side" design.

After losing in the district court, Medtronic appealed. At issue was whether claim 3 of the '233 patent encompassed a "side-by-side" design or was limited to the coaxial design. The district court had determined, and the Federal Circuit confirmed, that claim 3 was not limited to the coaxial design. The Federal Circuit looked first to the claim language itself, concluding that claim 3 on its face encompassed either configuration. Next, the Federal Circuit looked to the specification and file history, noting that Medtronic had incorrectly supported its position by relying on statements made in the prosecution history of related applications.

Medtronic also failed to support its motion for SJ of inequitable conduct because it had provided no independent showing of intent to deceive. In affirming this decision, the Federal Circuit reiterated that there was no abuse of discretion to forbid discovery of settlement negotiations in view of Medtronic's failure to prove either materiality or intent. Finally, Medtronic was denied its motion for a new trial. While Medtronic had attempted to have opinions of counsel admitted for two related patents, Medtronic had withheld the opinion regarding the '233 patent under the attorney-client privilege. The Federal Circuit noted that the opinions regarding the two related patents were properly excluded, particularly in view of the assertion of attorney-client privilege for the opinion regarding the patent-in-suit. Therefore, the Federal Circuit confirmed that no grounds for a new trial existed and confirmed the enhancement of damages by thirty percent for willfulness.

Claims to Electrical Steel Composition Found Obvious

Michele C. Bosch

[Judges: Bryson (author), Newman, and Rader]

In *In re Inland Steel Co.*, No. 00-1143 (Fed. Cir. Sept. 19, 2001), the Federal Circuit affirmed the Board's rejection on reexamination of nine claims of U.S. Patent No. 4,421,574 ("the '574 patent") as obvi-

ous under 35 U.S.C. § 103.

The '574 patent issued in 1983. In 1991, Inland Steel Company ("Inland") sued USX Corporation ("USX") and LTV Steel Company, Inc. ("LTV"), alleging infringement of the '574 patent. While that lawsuit was pending, USX and LTV filed requests for reexamination of the '574 patent, which were granted by the PTO, resulting in the district court staying the lawsuit pending outcome of the reexamination proceeding. During reexamination, the Examiner rejected all claims of the '574 patent as anticipated or obvious. Inland cancelled some claims and appealed the remaining claims to the Board. The Board sustained the Examiner's rejections under § 103 based on a variety of prior art combinations.

The appealed claims are directed to a method of producing cold-rolled electrical steel that has improved magnetic properties. In general, cold-rolled steel is produced by forming molten steel into thick slabs and then converting the slabs into thinner strips by a series of hot-rolling steps. The thin strips are then cooled to room temperature and reduced to nearly their final thickness by a series of cold-rolling steps. During the processing that follows hot rolling, the steel strip is conventionally subjected to an annealing operation in which the steel is heated and then slowly cooled. That annealing step may be performed either (1) between the hot- and cold-rolling steps, (2) between stages of multiple cold-rolling steps, or (3) after the completion of cold rolling.

The '574 patent addressed problems with prior art techniques by adding antimony during the preparation of the steel, which improved the magnetic properties of the steel. The appealed claims were more specifically directed to a process for using antimony in making steel and precluded any annealing step during the period after hot rolling but before the completion of cold rolling. By excluding annealing during that time, the claimed process achieves improvements in the magnetic properties of the produced steel.

The Board found, and Inland conceded, that the primary reference taught all of the process and compositional limitations of the claims of the '574 patent, except for the addition of antimony. A secondary reference, however, had used a hot-band anneal and added antimony. Inland argued before the Board that the secondary reference only taught that antimony improves magnetic properties in combination with the hot-band anneal. The Board disagreed and upheld the Examiner's rejection.

On appeal, Inland argued that the Board had erred in concluding that the secondary reference taught the use of antimony in the absence of hot-band annealing and, therefore, that there was no motivation to combine the teachings of the primary reference, which precludes annealing, with the secondary reference, which requires annealing. The Board, recognizing that the secondary reference did focus on the

combined use of annealing and antimony, found it nonetheless teaches antimony use in the absence of an annealing step. Substantial evidence supports the Board's interpretation of the secondary reference, leading the Court to conclude that the combined use of an annealing step and antimony focus of the secondary reference does not negate its additional teaching that antimony use is effective even in nonannealed steel.

Inland next argued that one skilled in the art would not have been motivated to combine the cited references because the results reported in the secondary reference for antimony use alone are not as favorable as those achieved by the primary reference, i.e., there is no demonstrated improvement in magnetic properties. The Court disagreed, finding that both of the references focus on the same problem that the '574 patent addresses—enhancing the magnetic properties of electrical steel; and that both come from the same field of art—the composition of steel with good magnetic properties.

Inland also contended that even if one of skill in the art contemplated combining the cited references, there would be no reason to expect that the combination would succeed in producing improved magnetic properties in electrical steel. Inland argued that because there were differences in the steel formulations, making it unreasonable to assume the results would be transferable, the combination at most suggested a path of inquiry for an inventor to try. The Court disagreed and found that since the ranges of the components of the formulations of both references overlap, as well as overlap with the claimed ranges of the '574 patent components, one skilled in the art would reasonably expect success from combining the references.

Inland sought to show that the particular levels of antimony used in the '574 claims achieved unexpected results, i.e., a dramatic improvement in magnetic properties that a person of skill in the art would not have anticipated. Inland presented two arguments, one directed to an alleged critical range of the '574 patent claims and the other directed to the alleged leveling off of the favorable effect of antimony on magnetic properties at higher concentrations. The Board concluded, however, that insufficient data had been presented to prove unexpected results. The Federal Circuit deferred to the Board's weighing of the evidence, couching the question as whether an examination of the record as a whole (taking into consideration evidence that both justifies and detracts from the agency's decision) would provide a reasonable mind with an adequate basis to support the Board's conclusion.

The Court also agreed with the Board that the proffered commercial success, even when combined with other objective indicia of nonobviousness, was insufficient to overcome the strong *prima facie* obviousness case.

Questions Remain Concerning Capabilities of Accused Software

James R. Barney

[Judges: Dyk (author), Rader, and Plager]

In *Hilgraeve Corp. v. Symantec Corp.*, No. 00-1373 (Fed. Cir. Sept. 17, 2001), the Federal Circuit vacated a district court's grant of SJ of noninfringement of U.S. Patent No. 5,319,776 ("the '776 patent") and affirmed the district court's grant of SJ that Symantec Corporation ("Symantec") was not a licensee of the '776 patent.

Hilgraeve Corporation ("Hilgraeve") sued Symantec for infringement of the '776 patent, which claims a method for preventing the spread of computer viruses in a computer system. A key limitation of the claimed method is that transferred data is screened for viruses "prior to storage on the destination storage medium." Symantec moved for SJ of noninfringement, arguing that its virus-protection software screens data only *after* the data is stored on the storage medium.

The district court had construed "storage" to mean that "the incoming data is sufficiently present on the destination storage medium so that any viruses contained in the data can spread and infect the computer system." The parties presented expert testimony on the issue of whether the accused software screens for viruses before such "storage" occurs. The district court had concluded that the parties' experts were in agreement that the accused software screens for viruses after the transferred data is stored and, therefore, the software could not infringe any claim of the '776 patent.

On appeal, the Federal Circuit noted that the term "storage" had previously been construed by the Federal Circuit in an earlier appeal involving the '776 patent. After an independent analysis, the Court adopted a construction of storage that included a requirement that the transferred data be "accessible by the operating system or other programs." Using this definition, the Court reviewed the testimony of the parties' experts and found that the experts disagreed as to whether the transferred data in the accused software is accessible by the operating system or other programs prior to its being screened for viruses.

Symantec argued that, even under the Federal Circuit's claim construction, the accused software did not infringe. Symantec pointed to several tests performed by its expert showing that, under certain unusual circumstances, the accused software could make transferred data accessible to other programs prior to the data being screened for viruses. However, the Federal Circuit found these tests to be inconclusive because they did not prove noninfringement of the software under normal operating conditions. The Court noted that an accused device may be found to infringe, even though it may also be capable of nonin-

fringing modes of operation. Because there remained a genuine issue of fact concerning the operation of the accused software under normal operating conditions, the Court vacated the district court's grant of SJ of noninfringement.

Symantec also argued that it was an authorized licensee of the '776 patent by a technology transfer agreement ("the Agreement") that transferred certain intellectual property to Delrina Delaware, an intermediary company that subsequently purported to license the '776 patent to Symantec. Construing the Agreement under Ontario law, the Federal Circuit held that the Agreement did not transfer any rights in the '776 patent because it did not explicitly mention the transfer of patent rights. Furthermore, the Court held that an agreement by Hilgraeve not to sue Delrina Delaware for patent infringement did not amount to a *transferable* patent license. Therefore, any purported license of the '776 patent from Delrina Delaware to Symantec was ineffective.

Claims Anticipated by Inherent Features of Prior Art

Smith R. Brittingham

[Judges: Rader (author), Plager, and Dyk]

In *EMI Group North America, Inc. v. Cypress Semiconductor Corp.*, No. 00-1508 (Sept. 21, 2001), the Federal Circuit affirmed a district court's decision to refuse a new trial to correct supposedly inconsistent jury verdicts, but reversed the district court's finding that the asserted patent claims were not invalid as inherently anticipated. The Court agreed that there was sufficient evidence in the record to support the jury's conclusion that it was scientifically impossible to implement the claimed invention. At the same time, the Court also agreed that the evidence supported an alternative finding that the invention was inherently anticipated by prior art structures and methods, assuming it was not impossible. As a result, the Court reversed the district court's decision to grant a JMOL in favor of the patent holder and held the patents invalid.

EMI Group North America, Inc. ("EMI") owns two related patents, U.S. Patent Nos. 4,826,785 ("the '785 patent") and 4,935,801 ("the '801 patent"), both of which relate to semiconductor fuses. The patents cover a structure and a method for producing a fuse that can be easily severed so that redundant circuitry on a chip can be disconnected. Prior art devices had previously used fuses with polysilicon interconnects, which were easily disconnected using laser energy. However, metal fuses were preferred since they produced more efficient and reliable connections. Unfortunately, higher energy lasers were needed to disconnect metal fuses, leading to problems with other structures on the chip.

The patents described a way to melt or disconnect metal fuses using low-energy lasers. The claimed inventions used a metal interconnect layer, such as aluminum, underneath a cap of optically absorptive refractory material with a higher boiling point than the underlying metal layer, such as tungsten or titanium. One embodiment also included a glass passivation layer on top of the optically absorptive, or transition, metal layer. The patents stated that low-laser energy would be absorbed by the transition layer, which would then melt the underlying metal interconnect layer with its lower melting point. This would in turn cause a vapor pressure to develop under the transition metal layer. Ultimately the fuse material would explode, disconnecting the circuit.

This explosion mechanism was part of each asserted claim in both patents. Yet the inventors had never actually practiced or observed this mechanism. The patents merely provided a theoretical explanation for why the system worked.

EMI sued Cypress Semiconductor Corporation ("Cypress") for infringement of both the '785 and '801 patents. Cypress's accused products used fuses with an aluminum layer covered by a tungsten-titanium alloy layer and glass passivation layer. At the trial, Cypress's expert testified that the explosion mechanism simply could not happen and that the patents claimed an impossible process or structure. He also stated that, assuming the explosion mechanism was not impossible, it was inherently practiced in several prior art references that disclosed the same sort of structures even if they did not describe a similar theoretical explanation.

The jury agreed with both of the expert's conclusions. The jury found that the patents did claim an impossible process and structure, and that if the process and structure were not impossible, they were inherently anticipated by the prior art. The jury also found that the Cypress devices did not infringe the patents. EMI requested that the district court order a new trial, arguing that the jury conclusions that the claimed fuse and process were impossible and also inherently anticipated were inconsistent. EMI also sought a JMOL, arguing that the asserted claims were not invalid as impossible or anticipated and that the accused products did infringe the patents. The district court denied the motion for new trial and the JMOL with respect to infringement and invalidity due to impossibility, but granted the JMOL as to anticipation.

The Federal Circuit agreed that a new trial was not necessary. Under applicable regional circuit law, a defense on alternative theories was permitted as long as the theories were explained carefully in language capable of lay comprehension. The Court noted that the alternative nature of Cypress's argument—that the process was impossible or, if not impossible, inherent in the prior art—was adequately supported by evidence in the record. Further, the alternative nature of the two conclusions was clearly set forth in the jury verdict form. Accordingly, the Court concluded that

the district court did not abuse its discretion in harmonizing the various jury conclusions.

The Federal Circuit also affirmed the district court's refusal to overturn the jury's verdict that the patents were invalid because the explosion mechanism was impossible. The Court noted that, where a claim includes "incorrect science in one limitation," the entire claim is invalid. The Court concluded that the trial testimony of Cypress's expert regarding the impossibility of the explosion mechanism provided ample support for the jury's verdict.

Finally, the Federal Circuit reversed the district court's decision to grant EMI's JMOL that the patents were not anticipated through inherency. Cypress's expert had testified that no prior art reference actually disclosed the explosion mechanism. However, he testified that there were prior art references disclosing the same structure as that found in the patents and that whatever scientific mechanism was responsible for severance of the prior art fuses would have been an inherent feature of those structures.

The district court had found that evidence insufficient, relying on certain cases that suggested that inherency could be satisfied only if a person of ordinary skill would have actually recognized the missing feature to be described in the prior art reference itself. The Federal Circuit disagreed, concluding that where the limitations are theoretical mechanisms or rules of natural law, there is no requirement that a person of ordinary skill appreciate the existence of that mechanism before there can be anticipation.

"Magic Words" Unnecessary in Settlement Agreement for Court to Retain Jurisdiction to Enforce Agreement

Steven L. Park

[Judges: Rader (author), Schall, and Dyk (dissenting)]

In *Schaefer Fan Co. v. J&D Manufacturing*, No. 00-1545 (Fed. Cir. Sept. 7, 2001), the Federal Circuit determined that the district court had properly retained subject-matter jurisdiction over a settlement agreement ("the Agreement") dispute and affirmed the district court's finding that J&D Manufacturing and Don Redetzke (collectively "J&D") had breached the Agreement. The Federal Circuit further held that the district court had not abused its discretion in finding J&D in contempt.

Schaefer Fan Company and Ronald Schaefer (collectively "Schaefer") had entered into the Agreement with J&D to resolve a lawsuit brought by Schaefer alleging that J&D infringed its U.S. Patent No. 4,818,183 ("the '183 patent"). The '183 patent

claims a safety guard for industrial-sized, air-circulating fans. The fan guard prevents human injury (by preventing fingers from reaching the blade) while minimizing the fan guard's impedance to air flow. Shortly after entering into the Agreement, J&D manufactured a fan guard similar to the one involved in the original suit. Schaefer filed suit, alleging a breach of the Agreement, and the district court granted Schaefer's motion to enforce the Agreement.

Subsequently, the district court found J&D in contempt for noncompliance with its Stipulation and Order of Dismissal. Specifically, the new fan manufactured by J&D had faces comprising spirals rather than concentric rings. The Court found that although the term "rings" in the Agreement included closed rings, the plain and ordinary meaning of "rings" also encompassed any "circular or spiral course." The Court also found J&D's conduct to be willful and a second incident of breach of the Agreement, and awarded damages and attorney fees.

On appeal, J&D argued that the district court had erred in retaining subject-matter jurisdiction over the original motion to enforce the Agreement and, therefore, had erred in retaining jurisdiction over subsequent motions for contempt. Alternatively, J&D asserted that the district court had erred in holding that J&D had breached the Agreement since the word "spirals" never appeared in either the '183 patent or the Agreement.

The Federal Circuit recognized that ancillary jurisdiction to enforce a settlement agreement exists only "if the parties' obligation to comply with the terms of the settlement agreement [is] made part of the order of dismissal—either by separate provision (such as a provision 'retaining jurisdiction' over the settlement agreement) or by incorporating the terms of the settlement agreement in the order." *Miener v. Missouri Dep't of Mental Health*, 62 F.3d 1126, 1127 (8th Cir. 1995) (quoting *Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 381 (1994)).

In this case, the Stipulation and Order of Dismissal provided that "pursuant to a confidential settlement agreement, all claims in this action may be dismissed with prejudice and on the merits." (Emphasis added.) Furthermore, the Agreement itself expressly stated that either party had a right to bring a motion before the district court to enforce the Agreement and seek equitable relief and damages.

Noting that a district court need not use explicit language or "any magic form of words" to effect a valid incorporation of an agreement into an order, the Federal Circuit ruled that the relevant language in the Agreement, as well as the language in the dismissal order adequately manifested the district court's intent to retain jurisdiction to enforce the Agreement. In addition, the Federal Circuit found that the district court had properly consulted the dictionary meaning to define the commonplace term "rings," where neither the Agreement nor the '183 patent had expressly

defined the term. Finally, the Federal Circuit held that the district court had not erred in its finding of contempt where J&D had failed to obtain any opinion of counsel as to whether manufacturing and selling the fans would violate the district court's Orders, despite having been previously held in contempt based on the same court Order.

Judge Dyk dissented only as to subject-matter jurisdiction, concluding that neither the district court's Order nor the Agreement was sufficient to confer continuing jurisdiction on the district court to enforce the Agreement. In his opinion, the district court's Order only approved the stipulation and did not mention the Agreement or any of its terms. Moreover, before issuing its Order, the district court had provisionally dismissed the case, expressly reserving jurisdiction for only sixty days, which, Judge Dyk concluded, inferred that the district court had explicitly intended that its jurisdiction end on that date.

Federal Circuit Finds Natural Gas Patents Definite

Gregory A. Chopskie

[Judges: Bryson (author), Mayer, and Lourie]

In *Exxon Research & Engineering Co. v. United States*, No. 00-5077 (Fed. Cir. Sept. 19, 2001), the Federal Circuit reversed a district court's holding that the asserted claims of two patents were invalid for indefiniteness.

Exxon Research & Engineering Company ("Exxon") charged the United States with infringement of several claims of U.S. Patent No. 5,292,705 ("the '705 patent") and U.S. Patent No. 5,348,982 ("the '982 patent"). Those patents claim improvements to a method for converting natural gas into liquid hydrocarbon products. Independent claim 1 of the '705 patent, for example, claims a method for activating a catalyst by treating it under specified conditions "for a period sufficient to increase substantially" its catalytic productivity. The district court had held that the limitations "for a period sufficient" and "to increase substantially" were both indefinite.

According to the district court, the limitation "to increase substantially" the catalytic productivity was indefinite because there are two possible ways to calculate an increase in productivity. On appeal, noting that two examples in the '705 patent clearly indicated only one of those methods, the "subtraction" method, the Federal Circuit reversed. According to the Federal Circuit, the term "to increase substantially" does not introduce any "insoluble ambiguity" into the claims of

that patent.

The Federal Circuit also reversed the district court's conclusion that the limitation "for a period sufficient" was indefinite. The trial court had held the limitation indefinite because it had concluded that neither the claims nor the specification of the '705 patent identified any upper or lower boundary for the prescribed period. According to the Federal Circuit, however, the claims provide that the catalyst must be treated "for a period sufficient" to obtain at least a thirty-percent increase in catalyst productivity and, thus, claims only a lower boundary of time. Acknowledging that the patent does not quantify the "period sufficient" limitation, the Federal Circuit nevertheless concluded that a person skilled in the art could determine that period by looking at the specification. Moreover, the Federal Circuit held that the prescribed period could vary depending on the conditions of individual reactions and, thus, the limitation was expressed in terms as precise as the subject matter allowed.

The district court had also held the asserted claims of the '982 patent invalid for indefiniteness, concluding that four of the claim terms were indefinite. The Federal Circuit reversed each. First, the trial court had concluded that the term "substantial absence of slug flow" was indefinite. According to the Federal Circuit, however, a person skilled in the art would know that "gas slugs" adversely impact the performance of the claimed method and, thus, "substantial absence of slug flow" can be determined with reference to whether the efficacy of the method is materially affected. Therefore, the Court concluded that if there is no appreciable impact on the claimed method, then there is a "substantial absence of slug flow" within the meaning of the claims.

The Federal Circuit turned next to the district court's holding that claim 1 of the '982 patent was indefinite because it contains inconsistent requirements regarding the extent to which the catalyst particles had to be "fluidized." Once again, the Court disagreed, holding that although the specification disclosed "sufficient" and "excellent" fluidization conditions, the claims claimed only "sufficient" fluidization.

Next, the Federal Circuit reversed the district court's holding that the catalyst particle diameter was indefinite. The '982 patent claims particles with an average diameter of five microns and discloses that 100-micron particles render the method inoperable. According to the district court, the claim's failure to recite an upper limit for particle size rendered it indefinite. The Federal Circuit disagreed, holding that the mere fact that the claim may include inoperable embodiments does not render it indefinite.

Finally, the Federal Circuit reversed the district court's holding that the mathematical term " U_L ",

which refers to liquid velocity, was indefinite. According to the district court, the patent was unclear whether the term referred to “interstitial” velocity, as argued by Exxon, or “superficial” velocity, as argued by the United States. Acknowledging that evidence in the patent supporting both interpretations made it a “close question,” the Federal Circuit nevertheless held that a person skilled in the art considering the whole specification would conclude that the term referred to interstitial velocity.

Federal Circuit “Dials In” on Telephone Security Device Patent

Brian M. Burn

[Judges: Michel (author), Schall, and Dyk (concurring)]

In *Sandt Technology Ltd. v. Resco Metal & Plastics Corp.*, No. 00-1449 (Fed. Cir. Sept. 6, 2001), the Federal Circuit affirmed a district court’s SJ of invalidity of certain claims based on prior invention under 35 U.S.C. § 102(g) and reversed and remanded the case to the district court to conduct a validity determination on the remaining claims.

Sandt Technology, Ltd. (“Sandt”) is the patentee of U.S. Patent No. 5,509,057 (“the ‘057 patent”). The ‘057 patent is directed to a two-plated, stainless-steel security cover for a pay telephone. Thieves typically drill into the vulnerable areas of a pay telephone and interfere with the coin-return mechanism. The vulnerable areas include the openings for the information pad and the dial buttons. The two-plated, stainless-steel security cover of the ‘057 patent protects these vulnerable areas. Sandt sued Resco Metal and Plastics Corporation (“Resco”) for patent infringement. Resco counterclaimed for invalidity, asserting that prior invention of its own two-plated security cover anticipated the claims of the ‘057 patent. Sandt moved for SJ of infringement of certain claims and DJ that all other claims were not invalid. Resco responded with its own motion for SJ of invalidity of all claims.

The district court had held that the Resco inventor’s affidavit testimony that he had invented a security cover prior to the filing date of the ‘057 patent was corroborated by sufficient evidence. The evidence included a patent application that was ultimately abandoned after a final rejection for indefiniteness and a letter from Resco to a telephone company offering its security cover for sale. Figures and drawings (one of which was also filed in the abandoned patent application) accompanied the letter.

On appeal, Sandt argued that the district court had erred in holding that Resco’s security cover was prior art under 35 U.S.C. § 102(g)(2) because the inventor’s testimony had not been properly corroborated.

Alternatively, Sandt argued, Resco had abandoned its invention.

Pointing to the earlier-filed patent application and Resco’s response to the telephone company’s request for proposals, the Federal Circuit held that the district court had correctly concluded that the testimony concerning manufacture of the Resco cover was sufficiently corroborated by the evidence.

Sandt argued that even if the Resco cover pre-dates its application filing date, Resco had abandoned its invention under 35 U.S.C. § 102(g). The Court noted that an inventor may seek to avoid a determination of abandonment by showing that he or she marketed or sold a commercial embodiment of the invention. Relying upon Resco’s letter and drawings to the telephone company, as well as an affidavit from a former employee of the telephone company to whom Resco had directed its marketing efforts, the Court concluded that Resco had not abandoned its invention.

The Federal Circuit noted that although both parties only presented evidence or argument regarding the validity of claims 1, 3, and 19, the district court had ruled that all claims were invalid. This was legal error, so the Court remanded the case to the district court to determine the validity of the other claims. Noting that the claims asserted to be infringed were invalid, the Federal Circuit declined to reach the infringement issue.

Judge Dyk wrote a separate concurrence, urging that caution should be exercised in the determination of issues of alleged prior invention on SJ given that credibility of the affiant is usually at issue.

Court Reverses Finding of Invalidity of Genentech’s hGH Patent

Brenda A. Allwardt

[Judges: Newman (author), Clevenger, and Gajarsa]

In *Bio-Technology General Corp. v. Genentech, Inc.*, No. 00-1223 (Fed. Cir. Sept. 27, 2001), the Federal Circuit reversed a lower court decision, which held that U.S. Patent No. 4,601,980 (“the ‘980 patent”) was invalid for lack of enablement. The Court also remanded the case for further proceedings to consider the issue of infringement and dismissed an antitrust claim.

The ‘980 patent is directed to a method for producing human growth hormone (“hGH”) using the recombinant techniques of bacterial production and gene expression. In the claimed process, hGH is produced with a methionine leader amino acid, resulting in a 192-amino-acid sequence “met-hGH.” According to the ‘980 patent, the methionine sequence is

thought to be cleaved within bacteria, resulting in the native 191-amino-acid sequence, or "mature hGH." According to evidence submitted in an ANDA to the FDA, hGH made by the process of the '980 patent contains 93.8 percent met-hGH and 6.2 percent mature hGH.

Claim 2 of the patent, the only claim-in-suit, states in pertinent part that "hGH is unaccompanied by the leader sequence." Bio-Technology General Corporation ("BTG") argued that the claim is not enabled because either the leader methionine may not be cleaved by the bacteria or the cleavage will not produce a "substantial amount" of mature hGH. Genentech, Inc. ("Genentech") responded that the invention is enabled by met-hGH, suggesting that the methionine does not constitute a leader sequence and that the claim is enabled if any mature hGH is produced along with the met-hGH.

At the district court, a jury had found that the claim was enabled. However, the district court granted JMOL of invalidity, setting aside the jury's ruling.

After reviewing the evidence, the Federal Circuit ruled that claim construction did not require that mature hGH would need to be produced in substantial amount or in exclusion of met-hGH for claim 2 to be enabled. Moreover, the Court found that the jury's verdict had been supported by substantial evidence and could have been reached by a reasonable jury. As such, the Court vacated the JMOL and reinstated the jury verdict.

The Federal Circuit concluded that the record on infringement was ambiguous and remanded the issue to the district court for further consideration.

On cross appeal, BTG raised an antitrust claim, arguing that Genentech's infringement suit and an action seeking exclusion by the ITC were "sham litigation" based on patents that Genentech knew were invalid and not infringed. The district court had dismissed these claims under Fed. R. Civ. P. 12(b)(6). BTG argued that this dismissal was improper because the district court had relied on the initial determination of an ALJ, whose findings and opinion were not binding. The Federal Circuit ruled that in considering this issue, the district court had correctly gone beyond the ALJ's opinion and made its judgment without discernable error. BTG also contended that the district court had abused its discretion in not granting them a request to file a second amended antitrust complaint, but the Federal Circuit affirmed the lower court's denial of the second complaint.

District Courts Cannot Compel PTO to Change Order of Inventors

Rebecca D. Hess

[Judges: Schall (author), Bryson, and Dyk]

In *Fina Technology, Inc. v. Ewen*, No. 00-1578 (Fed. Cir. Sept. 17, 2001), the Federal Circuit vacated an order by the district court ordering the Director of the

PTO to change the order of inventors on two patents.

Fina Technology, Inc. and Fina Oil and Chemical Company (collectively "Fina") are owners of U.S. Patent Nos. 4,892,851 ("the '851 patent") and 5,476,914 ("the '914 patent") directed to a certain type of polypropylene technology. Both patents list Dr. John A. Ewen as the first inventor and Dr. Abbas Razavi as the second inventor.

In December 1993, Fina brought a DJ action against Dr. Ewen in the United States District Court for the Northern District of Texas seeking judgment that the inventorship designation of the '851 patent was correct. Subsequently, Dr. Razavi intervened. When the '914 patent issued in 1995, Fina added it to its suit. Eventually, the parties entered into a settlement agreement ("the Agreement") and, thereafter, the district court dismissed Fina's suit with prejudice and ordered the Director of the PTO to issue a certificate of correction pursuant to 35 U.S.C. § 256 for the '851 and '914 patents reversing the order of inventors.

Dr. Ewen appealed the order of the district court, arguing that the Agreement contemplated only dismissal of the lawsuit with prejudice and that the district court did not have authority under 35 U.S.C. § 256 to change the order of inventors of the patent.

The Federal Circuit ruled that the language of § 256 was not broad enough to be read as giving the district court authority to order the Director to change the order of the inventors on an issued patent. Further, § 255 permits the Director only to issue a certificate of correction for clerical errors and cannot be applied in a judicial proceeding. Citing to the MPEP, the Court noted that the Director only has authority to change the order of inventors when a petition is granted under 37 C.F.R. § 1.182.

12 | page

Court Remands Case Concerning Leaf Blower Patent for Trial on Doctrine of Equivalents

Vince Kovalick

[Judges: Rader (author), Newman, and Linn]

In *Toro Co. v. White Consolidated Industries, Inc.*, No. 00-1561 (Fed. Cir. Sept. 24, 2001), the Federal Circuit vacated a SJ of noninfringement and remanded for trial.

The Toro Company ("Toro") owns U.S. Patent No. 4,694,528 ("the '528 patent"), which discloses and claims a convertible vacuum-blower used, for example, to collect leaves and small debris or to disperse the same as a blower. In a previous opinion, the Federal Circuit construed the claims and reversed a SJ of literal infringement. *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295 (Fed. Cir. 1999) ("*Toro I*"). In particular, the Federal Circuit construed a limitation of claim 16 to mean that a restriction ring or "means for increasing the pressure" is "permanently affixed to and included as part of a cover." Because White Consolidated Industries, Inc.'s ("White") accused

vacuum-blower has a restriction ring that is separate from the cover, the Federal Circuit reversed and remanded for a determination of infringement under the DOE.

On remand, the district court had interpreted *Toro I* as holding that a critical function of the air-inlet cover claimed in the '528 patent is to automatically insert and remove the restriction ring. Since such function is missing from White's accused vacuum-blower, the district court had granted SJ that it did not infringe the '528 patent under the DOE.

The Federal Circuit disagreed with the district court's interpretation of its opinion and clarified that the claim does not recite the functions of automatically placing the restriction ring and one cannot read such a functional requirement into the claims from the specification. The claim simply defines the function of the cover as covering the air inlet. It explained that in *Toro I*, it had construed the cover to include a restriction ring; it did not incorporate all inherent functions of a restriction ring into the claim. Thus, the Federal Circuit found a genuine issue of material fact remaining as to whether White's two-piece ring and cover are insubstantially different from the unitary ring and cover claimed and remanded for trial.

page 13

Infringement Action Dismissed for Lack of Personal Jurisdiction

Vince Kovalick

[Judges: Bryson (author), Michel, and Dyk]

In *Pieczenik v. Dyax Corp.*, No. 00-1519 (Fed. Cir. Sept. 17, 2001), the Federal Circuit affirmed a judgment of the district court that had dismissed a patent infringement action for lack of personal jurisdiction over Dyax Corporation ("Dyax").

Plaintiff, George Pieczenik, asserted three patents against Dyax in the U.S. District Court for the Southern District of New York. The patents are related to DNA technology. Dyax moved to dismiss the complaint for lack of personal jurisdiction, contending that it did not have sufficient contacts with the State of New York. Discovery revealed that Dyax has no facilities, properties, employees, subsidiaries, operations, bank accounts, or telephone listings in New York, is not registered to do business in New York, and does not pay corporate taxes in New York.

Pieczenik asserted jurisdiction based on two agreements between Dyax and Pall Corporation ("Pall"), a New York company, under which Dyax provided services to Pall. Pieczenik also pointed to an agreement between Dyax and Ortho-Clinical Diagnostics, Inc. ("Ortho"), another New York company, which granted Ortho a license to practice the tech-

nology protected by certain Dyax patents. The district court was not persuaded and dismissed the complaint for lack of personal jurisdiction.

The Federal Circuit ruled that in New York the cause of action must arise from a transaction of business in New York. None of the transactions relied upon by Pieczenik satisfied this test. As to the agreements between Dyax and Pall, Dyax had performed the work for both of those agreements in Massachusetts, and the patents cover the processes by which those products were made. Thus, any cause of action for direct infringement arose from Dyax's activities in Massachusetts, not from activities in New York.

As to Dyax's agreement with Ortho, Pieczenik had failed to show that the agreement was negotiated or executed in New York. Nor did Pieczenik show that Dyax representatives had visited New York in connection with the licensing agreement. Finally, the choice of law provision in the contract specified that Massachusetts law would govern any disputes arising out of the contracts. Since the mere existence of a contract with a New York corporation is not sufficient to constitute a transaction of business under the New York long-arm statute, the Federal Circuit agreed that personal jurisdiction was lacking.

"Gnarly" Holding of Noninfringement on Surfboard Patent

Stephanie S. Conis Gauthier

[Judges: Clevenger (author), Newman, and Dyk]

In *Fin Control Systems Pty, Ltd. v. OAM, Inc.*, No. 00-1516 (Fed. Cir. Sept. 12, 2001), the Federal Circuit affirmed-in-part, vacated-in-part, and remanded a district court's decision granting of SJ of noninfringement.

Fin Control Systems Pty, Ltd. ("FCS") sued OAM, Inc. ("OAM") in the Central District of California, alleging contributory infringement and inducement of infringement of U.S. Patent No. 5,464,359 ("the '359 patent"). The '359 patent is directed to a system for providing detachable fins to the bottom of a surfboard. The invention includes plugs (fixing elements) recessed in the board. Each plug receives a mating tab (fixing member or formation) extending from the base of the fin. In a preferred form, two plugs are provided for each fin, and each fin has two mating tabs to engage with those two plugs. The specification further states that the tabs may be fixed within the plug recesses by means that laterally engage the mating tabs of the fins, such as by one or more screws.

The only claim at issue recites a surf craft including a body with a fixing element embedded therein and a fin attached to the surf craft. The fixing element has a fixing cavity therein. The fin has a pair of lateral

surfaces, an end surface, and a fixing formation extending from its end surface. The fixing formation is engaged with the fixing cavity by releasable means laterally engaging the formation, where the releasable means applies lateral force to the formation. The force is generated by means of a screw, which is located in a passage extending from an outer surface of the fixing element to a side wall of the fixing cavity that is inserted into the fixing element from an outer end of the fixing element.

FCS alleged that OAM infringed the '359 patent by marketing a removable fin-attachment system. The accused system differed from the embodiments disclosed in the '359 patent by, first, having a single fixing element per fin and, second, including two cross-shaped tabs at the bottom of each fin, where the tabs are engaged by a grub screw at the front surface of one of the tabs.

In the district court, the parties had filed cross-motions for SJ regarding infringement. After a claim construction hearing, the district court had issued an order construing the asserted claims and granting SJ in favor of OAM. The district court had determined that "laterally" means "from the side" and that "lateral force" excludes "front force" or "rear force." Thus, the district court had concluded that OAM did not literally infringe because the grub screw on OAM's accused system engaged the fixing formation from the front. The district court also had ruled that there could be no infringement under the DOE because to apply the claim against the accused product would read the "laterally engaging," "applying lateral force," and "to a side wall of said cavity" limitations out of the claim.

On appeal, to determine whether the district court's grant of SJ was proper, the dispositive issue concerned the proper meaning of "lateral" and "side" in the context of the "fixing formation" and the corresponding "fixing cavity" limitations. The Federal Circuit rejected FCS's proposed broad interpretation of "lateral" to mean "any surface which is not a top or bottom surface."

The Federal Circuit concluded that since the claim recites a "fin having a pair of lateral surfaces and an end surface," the "lateral surfaces" are those "on the side of the median vertical plane." It further concluded that use of the terms "laterally engaging" and "lateral forces" in the prosecution history and in the prior art of record are consistent with the district court's interpretation.

Having affirmed the district court's interpretation of the disputed terms, the Federal Circuit also affirmed the district court's finding of no literal infringement because the accused system includes a screw that engages with the front of the tab or "fixing formation" on the surfboard fin. Thus, the accused system does not meet the "lateral" or "side" limitations. The Federal Circuit also argued that applying the DOE to find infringement would improperly read the limitations of "lateral" and "side" out of the claim.

Section 102(g) Applies Despite Prior Inventor's Unawareness of Invention's Patentability

Eric W. Adcock

[Judges: Dyk (author), Michel, and Bryson]

In *Dow Chemical Co. v. Astro-Valcour, Inc.*, No. 01-1003 (Fed. Cir. Sept. 28, 2001), the Federal Circuit held that a prior inventor need not be aware of the invention's patentability in order for that invention to be invalidating prior art under 35 U.S.C. § 102(g). The Court also held that reasonable efforts to commercialize an invention preclude its removal as prior art on the basis of suppression or concealment. With these holdings, the Federal Circuit affirmed a district court's decision under § 102(g) invalidating certain claims in patents assigned to The Dow Chemical Company ("Dow").

Dow is the assignee of three U.S. patents ("the Dow patents") to Dr. Chung Park. These patents include composition-of-matter and method claims covering, among other things, certain plastic foams that are formed using isobutene as a blowing agent. Before Dr. Park conceived his inventions, Astro-Valcour, Inc. ("AVI") had purchased from Japanese Styrene Paper Company ("JSP") a license to JSP's U.S. patent covering a process for producing plastic foam using nonchlorofluorocarbon blowing agents. The licensed patent did not disclose isobutene as a blowing agent, but AVI successfully tested a process using isobutene with the licensed technology. Thus, prior to Dr. Park's invention, AVI had produced a foam meeting the limitations of the Dow patents' claims.

AVI moved for SJ that certain claims of the Dow patents were invalid under 35 U.S.C. § 102(g) based upon AVI's prior invention. In opposition, Dow questioned whether AVI used n-butane rather than isobutene, but failed to create a genuine issue of material fact on this subject. Dow also argued to the lower court that AVI's foam could not constitute § 102(g) prior art because JSP had previously reduced the invention to practice by filing its patent application. The district court rejected this argument for lack of legal support. Finally, Dow argued to the district court that AVI had abandoned, suppressed, or concealed its invention. The lower court disagreed, holding that because JSP had disclosed the invention to the public in 1974 by its issued patent, AVI's conduct after the initial production of its foam in 1984 was irrelevant. Accordingly, the district court granted AVI's SJ motion.

On appeal, Dow argued that AVI's foam production did not satisfy § 102(g) because no one at AVI believed anything had been invented, meaning there was no "inventor" as that term is used in the statute. Dow also argued that AVI waited two and one-half years after its initial foam production to market the product, in violation of the § 102(g) prohibition against suppression and concealment.

Regarding Dow's first argument, the Federal Circuit took note of Congress's amendment of the statutory language of § 102(g). Prior to the American Inventors Protection Act of 1999 ("AIPA"), § 102(g) stated that a claim was unpatentable if "the invention was made in this country by another." The new language reads, "the invention was made in this country by another inventor." Dow argued that AVI's unawareness that it had conceived an invention when it produced its foam meant that no one in that company was an inventor, as required by the statute. Although the Federal Circuit agreed with Dow that both versions of § 102(g) require an inventor, it held that a person need not appreciate the patentability of an invention to be considered an inventor under § 102(g). An inventor need only appreciate the fact of what he made. According to the Court, AVI's appreciation of what it had made was sufficient to qualify it as an "inventor" under the statute, even though it was unaware that it had made a patentable invention. Thus, AVI's foam-production activities qualified as prior art and met the limitations of the disputed claims in the Dow patents.

The Court also rejected Dow's second argument regarding suppression and concealment. Reiterating

that AVI's activities constituted the prior art, not the JSP patent, the Court stated that the JSP patent was not relevant to the question of suppression and concealment. The Federal Circuit affirmed on another basis, however, by declining Dow's invitation to create a rule that a particular period of delay establishes or infers suppression or concealment. Instead, the Court found that AVI had made reasonable efforts to commercialize its foam after inventing it, which excused the two and one-half year delay. The Federal Circuit accordingly affirmed the district court's holding on SJ that the disputed claims were invalid under § 102(g).

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In **Last month at The Federal Circuit**, certain terms, titles, and names of federal agencies that are frequently referred to in text, appear in abbreviated forms or as acronyms. These abbreviated forms and acronyms are listed below.

ALJ	Administrative Law Judge
APJ	Administrative Patent Judge
Board	Board of Patent Appeals and Interferences
Commissioner	Commissioner of Patents and Trademarks
CIP	Continuation-in-Part
DJ	Declaratory Judgment
DOE	Doctrine of Equivalents
IP	Intellectual Property
ITC	International Trade Commission
JMOL	Judgment as a Matter of Law
MPEP	Manual of Patent Examining Procedure
PCT	Patent Cooperation Treaty
PTO	United States Patent and Trademark Office
SEC	Securities and Exchange Commission
SM	Special Master
SJ	Summary Judgment