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Recent Development

RECENT DEVELOPMENTS IN PATENT LAW

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***100 I. Introduction**

This article provides an analysis of significant developments in patent law in the United States during a survey period spanning January through August of 1995. In the area of patent prosecution, the Court of Appeals for the Federal Circuit and the U.S. Patent and Trademark Office (PTO) worked to solidify the law relating to patentable inventions. With both judicial decisions and new guidelines, the Federal Circuit and the PTO made major advances in clarifying patentable subject matter, especially in the computer software and biotechnology areas. Not only did the Federal Circuit work to remove uncertainty as to patentable subject matter, it also strove to resolve questions in the areas of best mode and inequitable conduct. In dealing with the inequitable conduct question, the divided Federal Circuit panel highlighted the tension that exists between the attorney's duty of disclosure to the Patent Office, on the one hand, and the duty of maintaining the attorney-client privilege, on the other.

In the area of patent infringement litigation, the Federal Circuit attempted to eliminate uncertainty by issuing en banc decisions addressing claim interpretation, doctrine of equivalents, and damages. Eliminating questions for jury review, thereby eliminating uncertainty, was apparently on the agenda of the Federal Circuit. However, in *In re Lockwood*[1], the U.S. Supreme Court reintroduced uncertainty on the issue of the right to a jury trial concerning validity by vacating the Federal Circuit panel opinion.

Recently, a milestone occurred in the harmonization of the U.S. patent laws with international intellectual property rights treaties and statutes, as the end of the General Agreement on Trade and Tariffs (GATT) interim period drew to a close and the permanent GATT Trade Related Aspects of Intellectual Property Rights (TRIPS) provisions of U.S. patent law came into effect. With numerous bills pending in Congress and a new report from a Presidential task force on intellectual property addressing the National Information Infrastructure[2] (led by the Commissioner of Patents and Trademarks), it is likely that additional significant developments can be expected in the future.

This article is not intended to provide a comprehensive reference to all federal court decisions relating to patents. Instead, it presents those developments the authors believe to have a measurable impact on the practice of patent law. Moreover, this article attempts to present the developments in an organized and easily understandable manner that is most readily useable by practitioners by providing both prosecution and litigation advice and counsel.

***101 II. Prosecution of Patent Applications**

A. General Prosecution Issues

1. Best Mode: *Glaxo, Inc. v. Novopharm Ltd.*[3]

In *Glaxo,* the Federal Circuit considered the issue of whether the best mode requirement of 35 U.S.C. § 112 covers knowledge imputed between an entire organization or only what is actually known by the inventor.[4] In *Glaxo,* an employee of Glaxo, invented, filed for, and assigned to Glaxo a patent on a pharmaceutical compound. Although Glaxo, through other employees, had knowledge of a process that would facilitate the use of the compound as a pharmaceutical composition, Glaxo (as employer-assignee) failed to disclose the facilitating process in the patent application.[5] The Federal Circuit held that the employer's knowledge of the process cannot be imputed to the employee-inventor to find the patent invalid for a best mode violation.[6] The court pointed out that the best mode inquiry focuses on the inventor's knowledge, not that of the employer-assignee.[7]

2. Inequitable Conduct: *Molins PLC v. Textron, Inc.*[8]

Molins raises a more complex and potentially troubling issue from a patent practitioner's point of view: a patent attorney's sometimes conflicting obligation of satisfying the duty to disclose information to the Patent Office while also maintaining the attorney-client privilege. Patentee Molins filed U.S. and foreign applications for an automated machining system. While the U.S. application was pending, Molins became aware of a reference through the foreign prosecution which arguably anticipated some claims of the U.S. applications.[9] Molins, however, did not cite this reference to the Patent Office prior to issuance of the U.S. patent. After issue, however, Molins filed a lengthy prior art statement listing the reference together with other prior art.[10] The district court held that the information disclosure actions constituted inequitable ***102** conduct rendering the patent unenforceable.[11] Molins argued that the reference was not material because a reexamination of the patent had taken place in which the reference had been disclosed to the PTO. In the reexamination, the examiner did not consider the reference to be important.[12] The Federal Circuit, however, affirmed the district court's holding that the patent was unenforceable because Molins had failed to submit information that a reasonable examiner would have considered material to the examination of the claims.[13]

The Federal Circuit did not, however, reach an inequitable conduct finding with respect to certain other actions involving the patent, which included Molins' actions after its application was filed and its counsel's failure to disclose a patent application filed by another client.[14] With respect to the latter, the attorney's failure to disclose did not amount to inequitable conduct because a co-pending patent application was cumulative of other prior art.[15] With respect to this conclusion, Judge Newman, in a concurring opinion, interpreted the court's opinion to assume that an attorney has a duty to disclose a co-pending application of another client if the co-pending application is material and noncumulative of other information already submitted to the examiner.[16] Judge Newman disagreed with this rule by stating that the attorney's duty to preserve his client's confidentiality is absolute, thereby removing from the attorney both the authority and the obligation to breach confidentiality to one client on behalf of another client to satisfy the duty to disclose.[17] Judge Newman stressed that the regulations in the Manual of Patent Examining Procedure (MPEP) cannot override an attorney's obligation to preserve client confidences and secrets.[18] Dissenting, Judge Nies contended that the attorney should have withdrawn from representation.[19]

The panel's decision does not resolve the conflict between the attorney's duty to disclose potentially relevant co-pending applications of unrelated clients and the attorney's duty of confidentiality to his client. If a rule emerges from this case, it is that an attorney has no duty to disclose cumulative references. However, this case does not resolve whether an attorney has a duty to disclose a non-cumulative application of an unrelated client.

***103** A slightly different issue involved what a patent attorney should do if, while prosecuting applications of two different clients in the same field of invention, the attorney discovers a prior art reference in the first case that is arguably relevant to the second. Judge Newman appears to suggest that the attorney-client privilege would not bar the attorney from disclosing the reference, but not the co-pending application in the second case.

While practitioners may well find Judge Newman's approach unappealing, it would prevent the issuance of patents that are, in fact, invalid due to prior art. Requiring the patent attorney to file this information could prevent the issuance of invalid patents and perhaps subsequent litigation. However, if a practitioner builds a reputation in patenting software, files hundreds of software patent applications, and is sought after by multiple software firms, should that attorney be forced to submit all prior-art references cited in previous cases for fear of unintentionally omitting a material reference. The answer is probably no, but it may also depend on other considerations. Crafting a rule from this dilemma is not an easy task, as evidenced by the court's analysis and the differing opinions that led to the decision.

B. Patentability of Computer Software and Biotechnology Inventions

In recent years, perhaps no areas have provided greater discussion and dispute than those of the patentability of software inventions and biotechnology. In one way, recent decisions have been business-as-usual. In another way, they have been of fundamental importance. During the past few months, the PTO promulgated one set of rules specifically tailored to the examination of computer software and another set of rules addressing biotechnology inventions. This article now discusses the case law developments of these new rules.

1. Computer Software: *In re Trovato, In re Beauregard,* PTO Guidelines

a) *In re Trovato*[20]

The en banc Federal Circuit issued a per curiam order on July 25 that vacated the court's panel ruling in *In re Trovato*.[21] That case held patent software claims to be non-statutory under 35 U.S.C. § 101 under the old analysis.[22] The Federal Circuit order also vacated the decision of the Board of Patent Appeals and Interferences in the case.[23] ***104** The court remanded the case for reconsideration in light of *In re Alappat*[24] and the PTO's recently proposed examiner guidelines on computer-implemented inventions.[25] Judge Nies filed a dissent to the reversal of the panel decision, calling the majority's action a "disservice to the Board, the Bar, and this court."[26]

The majority's order excuses the PTO by pointing out that the underlying PTO Board decisions were rendered before the en banc *Alappat* ruling, and that the PTO's subsequently issued software guidelines are consistent with *Alappat.*[27] On the other hand, the judgment of the court panel led by Judge Nies was entered on December 19, 1994, after the *Alappat* decision. The majority simply vacated the panel order, and the opinion accompanying the judgment was withdrawn.[28]

Judge Nies, of course, disagreed with the majority's withdrawal of her opinion in the panel ruling and complained that the majority's order failed to state that the panel opinion (i.e., her opinion) was contrary to any of the court's precedent, including *Alappat*.[29] Furthermore, Judge Nies argued that if the majority believed the panel opinion was in some way contrary to *Alappat,* or that the precedent relied upon in the panel opinion (i.e., *Freeman-Walter-Abele*) should be overturned, the court should have said so explicitly and provided an explanation for the benefit of others.[30] Despite Judge Nies' dissatisfaction, it remains clear from the majority in *In re Trovato* that the *Freeman-Walter-Abele* test is no longer appropriate.

b) *In re Beauregard*[31]

Beauregard further strengthens the general patentability of all software forms, including software stored on disk.[32] In *Beauregard,* the court vacated and remanded the Board of Patent Appeal's decision rejecting a claim to a program stored on a magnetic disk.[33] The Board had initially rejected computer program product claims on the basis of the "printed matter" doctrine. Shortly thereafter, the Federal Circuit held in *In re Lowry* that the PTO had improperly applied the printed matter doctrine to reject ***105** claimed data structures stored in computer memory under sections 102 and 103.[34] Beauregard appealed the Board decision in his case soon after *Lowry* was handed down. Conceding that its rejection of Beauregard's claims was "apparently inconsistent" with *Lowry,* the PTO moved to remand the case.[35] The motion was denied, and Beauregard filed a suggestion that the Federal Circuit take *en banc* review of his case. The PTO then moved the Federal Circuit to dismiss Beauregard's appeal because the agency agreed with Beauregard that the claims should be allowed, leaving no case or controversy to be decided.[36] The Federal Circuit vacated and remanded based on the Patent and Trademark Office concessions.[37]

c) *Computer Invention Guidelines*[38]

On June 2, 1995, the PTO published proposed *Computer Invention Guidelines* for examining the patentability of computer-implemented inventions.[39] The *Computer Invention Guidelines* follow numerous Federal Circuit decisions in the area, as well as the PTO's reversal of its own ruling in the *Beauregard* case,[40] and focus primarily on the issue of statutory subject matter.[41]

The *Computer Invention Guidelines* propose a procedure that examiners are to follow for computer-implemented inventions. The procedure begins with a determination of what the applicant has invented by reviewing the written description and the claims.[42] This first step includes identifying specific embodiments, reviewing the description, and noting specific utility of the invention.[43] The examiner then is to correlate claim elements to the written description, for the purpose of classifying the claimed inventions.[44] The next step of the procedure involves an analysis of each claim to determine if it complies with 35 U.S.C. § 112, para. 2 (indefiniteness) and para. 1 (enablement).[45] If the applicant claims a non-statutory invention, the *Computer Invention Guidelines* direct the examiner to determine whether the application discloses ***106** a statutory invention.[46] If so, the examiner will reject the claim under section 112 and suggest features that would render the claimed invention statutory.[47] If the application discloses no statutory invention, the claims will be rejected under both sections 101 and 112.[48] Lastly, the *Computer Invention Guidelines* require that the examiner determine whether the claimed invention is novel and non-obvious under sections 102 and 103, as usual.[49]

The *Computer Invention Guidelines* explicitly describe the statutory classification of computer implemented inventions under the three classes: machine, article of manufacture, and process inventions.[50] A computer or other programmable apparatus whose actions are directed by a computer program or other form of software is a statutory machine, according to the *Computer Invention Guidelines*' definition.[51] A statutory article of manufacture is defined as "[a] computer-readable memory that can direct a computer to function in a particular manner when used by the computer."[52] In order to meet this class, the

invention must encompass two elements. First, the memory must be a storage medium with a particular physical structure.[53] Secondly, the memory must have a function, such as to impart the data onto a computer.[54] In other words, there must be both (a) a computer-readable storage medium, and (b) a specific physical configuration of the substrate of the computer-readable storage medium that represents data (e.g., a computer program), "where the storage medium so configured causes a computer to operate in a specific and pre-defined manner."[55] Lastly, the *Computer Invention Guidelines* define a series of specific operational steps to be performed on or with the aid of a computer as a statutory process.[56] Thus, a claim to "a computer program" that recites specific steps to be implemented on or using a computer is a statutory process.[57] However, a claim to "a computer program" that does not define the ***107** invention in terms of specific steps to be performed on or using a computer is not a statutory process.[58]

The *Computer Invention Guidelines* also provide explicit examples of non-statutory subject matter. Inventions which it defines as non-statutory include the following:
[1] a compilation or arrangement of data independent of any physical element;

[2] a known machine-readable storage medium that is encoded with data representing creative or artistic expression (e.g., a work of music, art or literature);

[3] a "data structure" independent of any physical element (i.e., not as implemented on a physical component of a computer such as a computer-readable memory to render that component capable of causing a computer to operate in a particular manner); and

[4] a process that does nothing more than manipulate abstract ideas or concepts (e.g., a process consisting solely of the steps one would follow in solving a mathematical problem).[59]
It follows from definition [4] above that "[a] claim to a method consisting solely of the steps necessary to convert one set of numbers to another set of numbers without reciting any computer-implemented steps is non-statutory."[60] The *Computer Invention Guidelines* also state that non-statutory subject matter cannot become statutory merely by being presented in a different form.[61] Thus, in rare situations, non-statutory subject matter may be defined in a claim classified as a statutory machine or article of manufacture. The *Computer Invention Guidelines* define such a claim as one in which the invention is claimed:

> [N]ot through characteristics of the machine or article of manufacture claimed but exclusively in terms of a non-statutory process that is to be performed on or using that machine or article of manufacture, and [[[such a claim] encompass[es] any product in the stated class (e.g., computer, computer-readable memory) configured *in any manner* to perform that process.[62]

The *Computer Invention Guidelines* represent a major effort to bring the practices of the PTO in line with the ever increasing body of case law supporting the position that computer software inventions are patentable in numerous claim formats. While had claimed software was not patentable, the PTO had granted software patents for many years. The *Computer Invention Guidelines* constitute a public acknowledgment by the PTO that such inventions are patentable. To the extent that there was confusion as to what the PTO would consider patentable, the *Computer Invention Guidelines* help remove lack of statutory subject matter as a barrier to patentability for a large ***108** percentage of computer-related inventions. The drawback of this widely reported change in philosophy is the relative dearth of prior art reference materials available to examiners, despite what has been and will continue to be a huge increase in the number of software-based patent applications.[63]

2. Biotechnology: *In re Brana, In re Devel,* Utility Guidelines

Another area of development was the patentability of biotechnology inventions. For over a decade, it has been clear that biotechnology inventions are patentable. However, many questions have arisen over the years concerning how to claim inventions to obtain utility patent protection. The Federal Circuit cases and the PTO promulgated guidelines that helped resolve some of the more fundamental questions.

a) *In re Brana*[64]

In *Brana,* the Federal Circuit decision again rebuked the PTO's rejection of biotechnology inventions for lack of utility.[65] In the past, biotechnology and pharmaceutical companies have encountered a "Catch-22" when attempting to patent new biotechnology inventions. If an applicant sought a patent for a product that had been tested only on animals, the examiner would reject the claims on the basis that the product lacked utility. On the other hand, if such a product were tested on people, the examiner would reject the claims under 35 U.S.C. § 102(b), asserting that the invention was on sale or in public use prior to the statutory one-year grace period.[66]

In *Brana,* the inventors applied for a patent on compounds for use in anti-tumor substances.[67] The PTO Board affirmed a decision by the examiner rejecting the application on the basis that while the inventors had performed tests on animals and disclosed those tests and results in the specification, the tests were not sufficient to establish that the compounds had practical utility under 35 U.S.C. § 101.[68] The Federal Circuit reversed the rejection by the Board.[69]

***109** The Federal Circuit noted that tests on standard experimental animals to prove a compound's alleged pharmaceutical properties are sufficient to establish utility.[70] The Federal Circuit in *Brana* made the clear statement that tests for FDA approval of a pharmaceutical compound are not equivalent to and should not be confused with the 35 U.S.C. § 101 utility requirement for patentability.[71] In the context of pharmaceutical inventions, the court believes usefulness necessarily includes the expectation of further research and development. Thus, the stage at which an invention becomes useful is before it is ready to be administered to humans.[72] Subsequent to *Brana,* the PTO has openly acknowledged that many examiners had performed improper utility analyses, especially those in the biotechnology fields. Thus, the PTO has published examination guidelines for utility.[73]

b) *In re Deuel*[74]

Deuel constitutes a significant opinion with respect to the patentability of DNA sequences and review of such inventions by the PTO. Deuel applied for a patent relating to isolated and purified DNA and cDNA molecules.[75] The PTO Board rejected certain claims to the cDNA molecules based on the obviousness of the method for making the molecules.[76] The Federal Circuit reversed the Board's rejection of the claims.[77]

The court stated that knowledge of a protein does not necessarily provide a conception of the particular DNA that encodes it.[78] The court also pointed out that the existence of a general method to isolate cDNA or DNA molecules is irrelevant to the obviousness of specific claimed molecules.[79] The Federal Circuit emphasized in *Deuel* that for a chemical claimed in structural terms, a finding of obviousness requires that the prior art suggests the claimed compounds to one of ordinary skill in the art.[80] It is ***110** not sufficient for the prior art simply to suggest a method of making them.[81] Thus, although it was generally known how to create artificial DNA sequences, that knowledge does not make particular claimed DNA sequences obvious.[82] After *Deuel,* it appears that a prior art disclosure of amino acid sequence of a protein does not necessarily render obvious the DNA molecules to encode the protein simply because redundancy of DNA allows one to hypothesize numerous sequences for coding the protein. Discovery of a particular sequence for coding the protein is not made obvious by the prior art disclosure of the protein.[83]

c) *Utility Examination Guidelines*[84]

On July 14, 1995, the PTO published final utility examination guidelines outlining the process for examining patent applications for compliance with the utility requirements of 35 U.S.C. §§ 101 and 112.[85] The PTO also finalized and made available the legal analysis supporting the *Utility Guidelines* which includes a discussion of issues relevant to the prosecution of biotechnology inventions.[86] The *Utility Guidelines* apply to the examination of all patent applications regardless of the subject matter.[87] However, they were motivated in large part by criticism of the PTO for its approach to the examination of biotechnology patent applications.

The *Utility Guidelines* state that the utility requirement of section 101 is satisfied by a credible statement of utility made by an applicant, or by an invention that has a well-established utility to one of ordinary skill in the art.[88] According to the *Utility Guidelines,* claims are to be rejected under both sections 101 and 112 if an applicant does not assert any credible utility or if utility would not be readily apparent to one of ordinary skill in the art.[89] Such a rejection shifts the burden to the applicant to identify a specific utility and to point out support for that utility in the specification.[90]

***111** An appropriate rejection for lack of utility must, according to the *Utility Guidelines,* include a prima facie showing supported by specific evidence.[91] A prima facie showing by an examiner that an invention has no utility would have to contain: (1) a well reasoned statement by the examiner that clearly sets forth the reasoning, (2) support for factual findings relied upon by the examiner, and (3) support for the examiner's conclusion that the applicant's evidence of utility would not

be persuasive to one of ordinary skill in the art.[92]

The utility legal analysis of the *Utility Guidelines* clarifies the general principles governing utility rejections and procedural considerations relating to such rejections.[93] The utility legal analysis also explicitly addresses special considerations for asserted therapeutic or pharmacological utilities and clarifies when examiners should not make rejections.[94] For example, the utility legal analysis clarifies that examiners need not require human clinical tests to support an asserted therapeutic or pharmaceutical utility.[95] The utility legal analysis also provides a "Utility Review Flowchart," which explains and clarifies the utility examination process.[96]

III. Litigation of Patents

The following discusses significant decisions in the area of patent infringement litigation. The cases include several en banc federal circuit decisions addressing both procedural and substantive issues.

A. Procedural Decisions

The Federal Circuit decisions pertaining to procedural matters addressed the first-to-file rule, claim interpretation, and the right to a jury trial on the issue of validity.

1. First-to-File: *Serco Services Co. v. Kelly Co.*[97]

Because of the first-to-file rule, many practitioners believed that patent litigants have strong incentives to race to the courthouse. This belief notwithstanding, the first-to-file rule is not a steadfast rule, but can be overcome due to convenience factors.[98] ***112** This decision seemingly erodes the first-to-file rule that came from *Genentech, Inc. v. Eli Lilly & Co.,*[99] which established that a first-filed declaratory judgment action will not be dismissed in favor of a later-filed infringement action, except in exceptional circumstances.[100]

In *Serco,* the district court dismissed a first-filed declaratory judgment action.[101] The Federal Circuit, while stating that a first-filed action is preferred, ruled that this preference should yield to "sound reasons" that would make it "unjust or inefficient to continue the first-filed action."[102] Accordingly, the Federal Circuit affirmed the district court's dismissal of the first-filed action, calling the convenience of the parties a "sound reason" not to continue the declaratory suit.[103]

The Federal Circuit also found that it was not an abuse of discretion for the district court to rely on its finding that the plaintiff had brought the declaratory judgment action in anticipation of an infringement suit.[104] Allowing this factor to weigh against the accused infringer substantially erodes *Genentech's* fairly solid adoption of the first-to-file rule. This decision has significance in that it could encourage patentees to seek dismissal of first-filed declaratory judgment action on the strength of 28 U.S.C. § 1404(a) venue transfer factors. This decision may provide a further advantage to patentees by allowing patentees to obtain more often a venue in their home districts.

2. Claim Interpretation: *Markman v. Westview Instruments, Inc.*[105]

Markman, has become a popular topic of professional discourse. The en banc Federal Circuit addressed whether the issue of claim interpretation was one for the jury ***113** or the judge.[106] Prior to *Markman,* it was generally understood that the issue was one of mixed law and fact. The Federal Circuit ruled in an 8-3 decision that patent claim language must be construed by the court as a matter of law, and that the meaning of the claims is not a fact issue for jury determination.[107] Furthermore, extrinsic evidence may be used to reach a correct conclusion, but it is not the subject of fact finding.[108] As a matter of law, it is subject to de novo review by the Federal Circuit.[109] In essence, the Federal Circuit takes the power of interpreting claims away from the jury, gives it to the trial court, and ultimately gives it to itself for de novo review.[110]

Interpreting claim language as a matter of law has a number of troubling implications. The district court has the option of hearing opinions of legal or technical experts. The Federal Circuit states in *Markman* that such opinion testimony does not affect its de novo review of the district court's claim construction.[111] Even though the Federal Circuit acknowledges that extrinsic evidence may be required to educate the court about claim language,[112] it does not suggest how the Federal Circuit can conduct meaningful de novo review without viewing the actual testimony of the witnesses. The Federal Circuit, like all appellate courts, can only review the record and cannot make credibility judgments of the various witnesses based on their live testimony.

3. Right to Jury Trial: *In re Lockwood*[113]

In *Lockwood,* the Federal Circuit held that the patentee whose infringement claim has been dismissed has a Seventh Amendment right to trial by jury of the accused infringer's counterclaim for declaratory judgment of patent invalidity.[114] The court granted a writ of mandamus in favor of Lockwood, whose claim for infringement had been dismissed. In determining that Lockwood was entitled to a jury trial on the issue of patent validity, the Federal Circuit stated that the best analogy for Seventh Amendment analysis was a patent infringement lawsuit with a counterclaim for ***114** invalidity.[115] That analogy is questionable, given that the infringement claim was no longer present.

The Supreme Court granted Lockwood's petition for certiorari on the issue of whether in an action in which the sole claim to be tried is a declaratory judgment claim to invalidate a patent, there is a Seventh Amendment right to a jury trial.[116] The Supreme Court issued a summary order vacating the Federal Circuit's judgment and remanding the case to the United States District Court for the Southern District of California with instructions to proceed with the case.[117]

The question remains as to what effect the Supreme Court's order[118] has on the Federal Circuit's holding. On the other hand, vacating the Federal Circuit opinion which might constitute an implicit reversal of the Federal Circuit's holding that Lockwood had a right to a jury trial on the issue of validity. Alternatively, the Supreme Court may have decided not to hear the case because Lockwood sought to withdraw his request for a jury trial. In which case, the order may merely signal the Supreme Court's reluctance to hear patent cases rather than comment on the constitutional issue involved.

B. Substantive Decisions

The Federal Circuit addressed a number of issues in the area of substantive matters including the doctrine of equivalents and recovery of lost profits.

1. Preamble Limitations: *Bell Communications Research, Inc. v. Vitalink Communications Corp.*[119]

Bell Communications discusses the proper effect of preamble limitations in patent claims.[120] Observing that "much ink has been consumed in debates regarding when and to what extent claim preambles limit the scope of the claims in which they appear,"[121] the Federal Circuit held in *Bell Communications* that preamble language incorporated by reference into a method claim had a limiting effect on the recited ***115** steps.[122] Although the court acknowledged that its case law has on occasion found that a preamble does not limit the claims, it characterized these pronouncements as "descriptive, rather than prescriptive," pointing out that the preamble's effect must be determined by reference to the specific claim.[123]

The court observed that this case involved claim construction, which is reviewed de novo under *Markman.*[124] The two basic principles of claim construction are: (1) the language of the claims determines their scope of protection; and (2) claims are construed in light of their specifications.[125] Claim preambles, like all other claim language, are construed consistently with these basic principles:[126]

[A] claim preamble has the import that the claim as a whole suggests for it. In other words, when the claim drafter chooses to use *both* the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects.[127]

The court concluded that "[p]reamble construction thus presents no deeper mystery than the broader task of claim construction, of which it is but a part."[128]

In *Bell Communications,* the court interpreted a claim[129] of a patent which recited in the preamble a "method for transmitting a packet over a system comprising a ***116** plurality of networks said packet including a source address and a destination address."[130] The particular claim then recited, among other things, the steps of "assigning, by said source device, one of said trees to broadcast said packet and associating with said packet an identifier indicative of said one of said trees."[131] The court stated that by referring to "said packet," these two steps in the claimed method expressly incorporated by reference the preamble phrase "said packet including a source address and a destination address."[132] Thus, only a method for transmitting packets that has both source and destination addresses could literally infringe the claim.[133]

Bellcore contended that "definitional status" should not be accorded to the preamble phrase "said packet including a source address and a destination address."[134] Bellcore relied on *DeGeorge v. Bernier*[135] for the proposition that the preamble to a

claim does not limit the claim.

The Federal Circuit disagreed with Bellcore, making the point that although the opinion in *DeGeorge* said that the preamble does not limit the claims, such an observation can only have a "descriptive, rather than prescriptive" effect.[136] The court emphatically stated that it has "long eschewed the use of an absolute rule according or denying all preambles limiting effect."[137] Instead, the court said that "one cannot ***117** determine a preamble's effect except by reference to the specific claim of which it is a component."[138] Applying this concept, the court concluded that Bell's claim was limited to read only on methods that transmitted packets having both source and destination addresses.[139]

This conclusion, however, did not mean the end of the line for Bellcore. The court went on to state that although the preamble language should be included as a limitation, the claim still must not be read in isolation, but in light of the specification.[140] Applying this rule, the court concluded that the district court committed legal error by finding that the claim did not read on an implicit approach for associating an identifier with a packet.[141] Consequently, the court found that there was a genuine issue on infringement and remanded to the district court.[142]

2. Doctrine of Equivalents: *Hilton Davis Chemical Co. v. Warner-Jenkinson Co.*[143]
Time will tell if the long-awaited *Hilton Davis* decision did anything to clear the muddied waters of the doctrine of equivalents. The Federal Circuit directed the parties to file briefs with the *en banc* Federal Circuit to address three questions. (1) Does a finding of infringement under the doctrine of equivalents require anything beyond proof that the accused device performs the same or substantially the same function in the same way to achieve the same result? If so, what? (2) "Is the issue of infringement under the doctrine of equivalents an equitable remedy to be decided by the court, or is it, like literal infringement, an issue of fact to be submitted to the jury in a jury case?" and (3) In the absence of literal infringement, is application of the doctrine of equivalents within the trial court's discretion?[144]

Addressing the first question, the court stated that describing the function-way-result test as the test for equivalency under *Graver Tank & Manufacturing Co. v. Linde* ***118** *Air Products Co.*[145] goes too far.[146] The court instead held that the application of the doctrine of equivalents rests on the substantiality of the differences between the claimed and accused products or processes.[147] One important factor in determining substantiality, beyond function-way-result, is whether a person of ordinary skill in the relevant art must know that an element not contained in the patent interchanges with one that was contained in the patent.[148] According to the court, the known interchangeability of the accused and claimed elements provides potent evidence of the insubstantiality of that change.[149] Another factor relevant to infringement under the doctrine of equivalents is evidence of copying, not because of the infringer's subjective awareness or motivation, but because copying suggests that the differences are insubstantial.[150]

As to the second issue, whether the doctrine of equivalents is to be applied by the court, the court concluded that "equitable," as used in the context of the doctrine of equivalents, did not imply equitable powers analogous to the chancellor's "balancing of the equities."[151] Instead, the court concluded that Supreme Court precedent unequivocally required that doctrine of equivalents infringement is a question of fact.[152] Based on the holding with respect to the second issue, the court quickly disposed of the third issue; the trial judge does not have the discretion to choose whether to apply the doctrine of equivalents when the record shows no literal infringement.[153]

***119** In the course of addressing these issues, the court considered the specific issue of whether bad faith was a prerequisite for the application of the doctrine of equivalents. Notwithstanding the court's willingness to consider evidence of copying in determining substantiality of differences, the court unambiguously stated that such evidence is not a prerequisite for applying the doctrine of equivalents.[154] The court emphasized that "[i] ntent is not an element of infringement."[155] Irrespective of the alleged infringer's motives or intent, it is the lack of substantial differences that triggers application of the doctrine of equivalents.[156]

3. Marking: *Toro Co. v. McCulloch Corp.*[157]
In *Toro Co. v. McCulloch Corp.,* the U.S. District Court for the District of Minnesota addressed the marking requirement of 35 U.S.C. § 287(a). The issue in *Toro* was whether section 287(a) applies when one claim in the patent encompasses an unmarked product, but the claim is not the claim asserted in the damages lawsuit.[158]

In *Toro,* the defendant, McCulloch, sought dismissal of a patent infringement suit on the ground that the plaintiff, Toro, had not marked a product sold which was covered by Toro's patent.[159] McCulloch argued that since section 287 does not allow recovery of damages in "any action for infringement" when the patent owner fails to mark a "patented article," Toro should

be denied damages, even though McCulloch's product allegedly infringed a separate claim in the Toro patent.[160]

The court disagreed, noting that "any action for infringement" must be read in the context of section 287(a) generally.[161] The court further stated that:

> [T]he term "patented article" does not necessarily include all "patented articles" which may arise under a patent. A device is a "patented article" when it contains all of the elements disclosed in any *single claim* of the patent. Since a patent may encompass several independent claims, there may be several distinct "patented articles" which arise under that patent, each of which may be the subject of an independent infringement action. Since Section 287(a) refers to a patented article which has not been properly marked, the logical reading of the statute indicates that the infringement action under which damages are limited is an infringement action based upon that same unmarked patented article.[162]

***120** On this basis, the Toro court held that the patent marking requirement of section 287(a) does not apply when the unmarked product does not contain the invention of asserted claims, even though it does fall under a claim contained in that patent.[163]

4. Lost Profits: *Rite-Hite Corp. v. Kelly Co.*[164]

Rite-Hite Corp. v. Kelly Co. was a matter of first impression for the issue of whether a patent owner may recover lost sales of devices not covered by the patent in suit. By a vote of 8-4, the *en banc* Federal Circuit held for the plaintiff, pointing out that an award of reasonably foreseeable damages may be necessary to make the patent owner whole within the meaning of 35 U.S.C. § 284.[165]

Rite-Hite sought lost profits for two types of vehicle restraints that it made and sold: one of which incorporated the invention of the patent claims in suit, and another which was not covered by the patent in suit.[166] Kelley sold a restraint which was designed to compete primarily with the non-covered restraint.[167] Of the 3,825 infringing Kelley restraints, the district court found that but for Kelley's infringement, Rite-Hite would have made eighty more sales of the covered restraints, 3,243 more sales of the non-covered restraints, and other sales associated with the restraints.[168] The district court awarded Rite-Hite the wholesale profits that it lost on lost sales of the covered restraints, the non-covered restraints, and the associated products.[169]

The Federal Circuit agreed that Rite-Hite's lost sales of the non-covered product, a product that directly competed with the infringing product, were reasonably foreseeable.[170] The court reasoned that, while recovery for lost sales of a device not covered by the patent in suit was not expressly provided for by the patent statute, express language is not required.[171] The court said that to refuse to award reasonably foreseeable damages necessary to make Rite-Hite whole would be inconsistent with the meaning of section 284.[172]

***121** However, by a 10-2 vote, the Federal Circuit reversed the district court's decision to extend infringement damages to lost sales of the associated product, which the court found to be "functionally separate" product.[173] The court used an "entire market value rule" to determine whether associated products sold with the patented apparatus should be included in the damage computation. According to the rule, the Federal Circuit stated that it is a clear purpose of the patent law to redress competitive damages resulting from infringement of the patent, but there is no basis for extending that recovery to include damages for items that are neither competitive with nor function with the patented invention.[174]

In a dissent, Judge Nies charged the majority with using section 284 as a tool to expand patent rights, and said that she would hold lost sales of the non-covered restraints as an injury that patentee's property rights did not reach.[175] Judge Newman applauded the majority for its decision to allow damages for lost sales of the non-covered restraint, but criticized the court's limitation of the patentee's right to prove damages for lost sales of collateral items.[176] Relying on the so-called "convoyed" sales concept, she took the position that authorizing damages for the lost sales of the non-covered restraint, but not for the associated products that were required to be bid and sold as a package with the covered and non-covered restraints, was legally ambivalent and economically unsound.[177]

IV. Legislation, Rules and Studies: Federal Government Efforts to Protect and Promote Intellectual Property

A. GATT TRIPS Transition Period: GATT Legislation and Associated PTO Rules

Recently, the PTO published final rules implementing the provisions of the General Agreement on Tariffs and Trade and the Trade Related Aspects of Intellectual Property Rights, which were enacted into law in the United States on December 8, 1994.[178] A number of changes to the practice of patent law were affected by these laws and the associated PTO rules.

***122** One important change is that the term of U.S. patents issuing from applications filed on or after June 8, 1995, is now twenty years from the earliest effective U.S. filing date, instead of seventeen years from the date of issue.[179] A second substantial change is a new type of patent application, referred to as a "provisional" application.[180] These and other aspects are discussed in more detail below.

The term of all utility and plant patents (but not design patents) issuing from applications filed on or after June 8, 1995, is twenty years from the earliest effective U.S. filing date of that application.[181] The effective U.S. filing date is the date on which a U.S. patent application is filed with the PTO as a U.S. (national) application or as a Patent Cooperation Treaty (PCT) application designating the United States.[182] The effective U.S. filing date of any application which claims priority from one or more earlier filed U.S. application(s) is the earliest U.S. filing date of the application(s) from which priority is claimed.[183] If an application is first filed outside the United States, the effective filing date is the date the application is first filed in the U.S. or the date a PCT application is filed designating the United States.[184] However, as part of a transition provision, any patent in force on or issuing from an application pending before June 8, 1995, has a term ending seventeen years from its date of issue or twenty years from its earliest effective U.S. filing date, *whichever is longer.*[185] Additionally, certain patent term extensions may be available for delays in prosecution not caused by the applicant.[186]

The ramifications of the changes in term are presented with a few example scenarios:

***123** Example 1: If a U.S. application "A" is filed on June 8, 1995, and a patent issues after three years of prosecution on June 8, 1998, the remaining term of that patent would be seventeen years. The patent would be enforceable from its issue date (June 8, 1998) and would expire on June 8, 2015, twenty years from its filing date (June 8, 1995).

Example 2: If application "A," described above, claimed priority from an earlier U.S. application filed on June 8, 1990, the term of that patent would be twenty years, however the remaining enforceable term would only be twelve years. The patent would be enforceable from its issue date (June 8, 1998), and would expire on June 8, 2010, twenty years from its effective filing date (June 8, 1990), but only twelve years from its issue date.

Example 3: If a U.S. application "B" is filed on June 7, 1995, and a patent issues after two years of prosecution on June 7, 1997, the remaining term of that patent would be eighteen years. This patent would be enforceable from its issue date (June 7, 1997) and would expire on June 7, 2015 (twenty years from the effective filing date), because that term is longer than seventeen years from the issue date (June 7, 1997).

Example 4: If application "B" had claimed priority from a U.S. application filed on June 8, 1990, the patent term would be seventeen years. The patent would be enforceable from its issue date (June 7, 1997) and expire on June 7, 2014 (seventeen years from the date of issue), because that term is longer than twenty years from the earliest effective filing date (June 8, 1990).

The PTO also implemented transitional rules. Delays in prosecution can shorten the effective term of a patent, therefore, the transitional rules address two special situations: after-final rejection practice and restriction practice. The purpose of each of these rules is to minimize the need for patent applicants to file divisional or continuation applications on or after June 8, 1995, and, thereby, be forced to accept a shorter effective patent term.

With respect to after-final rejection practice, currently, U.S. patent examiners are not required to enter any amendments or consider any new arguments or evidence after a final rejection is made, especially if new issues are raised or further search would be required.[187] When this occurs, the applicant must choose whether to appeal the final rejection to the Board of Patent Appeals and Interferences, or file a continuation application to continue prosecution. The patent term changes discussed above further complicate this decision, because a patent issuing from a continuation application filed on or after June 8, 1995, has a term expiring twenty years from the effective U.S. filing date of the earlier (parent) application.[188]

***124** To lessen any hardship that may be caused in such cases, the transitional rules provide that an applicant may pay a fee and require the examiner to withdraw the finality of the rejection, enter applicant's amendments, and consider any new arguments or evidence, as if they had been submitted in response to a non-final rejection.[189] The examiner may respond with a

new final rejection, but the amendments and evidence will now be of record.[190] The applicant may then respond in accordance with current after-final rejection practice or once again pay the fee and require the Examiner to withdraw the finality of the rejection.[191] This procedure may be used no more than twice in each application and only applies to applications which have an effective U.S. filing date on or before June 8, 1993.[192]

Further, for restriction requirements made between April 7, 1995 and June 7, 1995, the transitional rules permit applicants to pay a fee to prosecute two or more inventions in a single application.[193] This procedure only applies to applications with effective U.S. filing dates on or before June 8, 1992.[194]

One of the more significant changes is the creation of provisional patent applications. Effective June 8, 1995, the PTO will begin accepting a new type of patent application--the provisional application.[195] The purpose of the provisional application is to allow applicants to create an internal priority document from which another application (U.S., foreign, or PCT) filed by the applicant may claim priority, but which does not start the twenty-year patent term.

A provisional application, when filed, must include a specification satisfying the requirements of 35 U.S.C. § 112, para. 1, and any drawings necessary to understand the disclosed subject matter.[196] Additional items are also necessary to obtain a filing date, but may be submitted later. These items include a cover sheet identifying the application as a provisional application, the name(s) of the inventor(s) of the subject matter disclosed in the specification, an oath or declaration, and the prescribed filing fee.[197] No claims are required.[198]

***125** Provisional applications will not be examined for patentability, never mature into patents, and automatically become abandoned twelve months after their filing date.[199] The term of a provisional application may not be extended, and no provisional continuation applications may be filed.[200] However, more than one provisional application may be filed covering the same subject matter.[201]

A provisional application is a national filing for purposes of the Paris Convention, and priority of its filing date may be claimed in U.S., foreign, or PCT applications filed within twelve months of the filing date of the provisional application.[202] Such applications may claim priority from more than one provisional application, subject to the twelve month limitation.[203] New matter developed within twelve months of the filing of a provisional application may be filed in an application claiming priority from the provisional application.[204] However, only subject matter disclosed in the provisional application in compliance with 35 U.S.C. § 112, para. 1, will be entitled to the benefit of the filing date of the provisional application.[205]

The provisional application allows applicants twelve months to assess the commercial value of an invention, conduct research to identify desirable embodiments, and prepare a patent application without starting the twenty-year term or any potential patent bar to the applicant. The twenty-year patent term for matter disclosed in the provisional application, as well as any new matter, starts as of the filing of the U.S. application claiming priority of the provisional application.[206] However, for any issued patent entitled to the benefit of priority of a provisional application, the patent becomes a reference effective against other U.S. applications as of the filing date of the provisional application.[207]

***126 B. Pending Intellectual Property Bills and Rules Changes**

A number of bills are currently pending in the House and Senate and are accompanied by proposed PTO rule changes that would have a significant effect on the practice of patent law. Counterpart bills on biotechnology process patents are pending in the House and Senate.[208] These bills seek to expand the patentability of biotechnological processes using or resulting in a composition of matter that is novel and non-obvious.[209] Changes to the patent reexamination proceedings to allow more efficient participation of third parties is also the subject of co-pending bills in the House and Senate.[210] Furthermore, although it did not escape from subcommittee in the Senate, a bill is pending in the House to institute early publication of patent applications eighteen months after filing.[211] Additional legislation in the House includes a bill creating a prior user defense to patent infringement,[212] and a bill related to process patents on medical procedures.[213] There are co-pending bills in the House and Senate seeking to alter the GATT implementation provisions and provide for a patent term of seventeen years from issue or twenty years from filing, whichever is longer.[214] Legislation pending only on the Senate includes a bill related to pharmaceutical patents under GATT,[215] and a bill related to protection of inventors by regulating invention marketers.[216]

The PTO has published final and interim rules as well as pending rules related to the above pending legislation. As discussed above, the PTO has published final rules relating to the twenty-year patent term, provisional applications, patent

interferences, ***127** and other issues related to implementing GATT.[217] In addition, the PTO has published proposed rules for implementing an eighteen-month publication of patent applications,[218] and proposed rules for changing reexamination proceedings.[219]

It is clear from this legislative activity that other changes to the patent law are in process and may be enacted in the near future. As the public awareness of intellectual property issues increases, the number of bills in Congress affecting intellectual property rights can be expected to rise as well. What influential parties cannot accomplish by other means, they will attempt to accomplish through the enactment of new laws.

C. Intellectual Property and the National Information Infrastructure

Recently, the Commissioner of Patents and Trademarks, Bruce A. Lehman, chaired a working group on intellectual property rights under President Clinton's Information Infrastructure Taskforce. The working group report was published on September 5, 1995.[220] The report covers copyright law extensively, but also discusses patent law, including several recommendations for better addressing the needs of inventors and the public with regard to technology used on the National Information Infrastructure (NII). These recommendations relate to the authenticity, including the date of origination, the contents as originally disclosed, and the extent of discrimination of electronically disseminated publications.[221]

The working group recommendations include that the PTO should obtain public input for measures that help ensure the authenticity of electronically disseminated publications, receive input for measures to more effectively evaluate the substance of information received as part of its patentability determinations, and explore establishing requirements or standards governing authentication of the date and contents of electronically-disseminated information for its use as prior art.[222]

V. Conclusion

The authors presented significant developments affecting patent law practice that occurred between January and August of 1995. The volume of material precluded a ***128** complete analysis of each such development. However, the authors hope that the foregoing provides some level of insight into the developments during this period and a helpful entry point for those issues in which the reader might take a deeper interest.

Footnotes

a1 Baker & Botts, L.L.P., Austin, Texas.

aa1 Baker & Botts, L.L.P., Austin, Texas.

aaa1 Baker & Botts, L.L.P., Austin, Texas.

1 50 F.3d 966, 33 U.S.P.Q.2d (BNA) 1907 (Fed. Cir. 1995), *vacated,* American Airlines v. Lockwood, 64 U.S.L.W. 3182 (Sept. 1, 1995).

2 WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, INFORMATION INFRASTRUCTURE TASK FORCE, U.S. DEP'T OF COMMERCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS (1995). Available through Gopher at iitf.doc.gov, or via Telnet at iitf.doc.gov, or directly via modem at (201) 501-1920.

3 52 F.3d 1043, 34 U.S.P.Q. 2d (BNA) 1565 (Fed. Cir. 1995).

4 *Id.* at 1049-52, 34 U.S.P.Q.2d at 1568-69.

[5] *Id.* at 1046, 34 U.S.P.Q.2d at 1566.

[6] *Id.* at 1050-51, 34 U.S.P.Q.2d at 1569-70.

[7] *Id.* at 1049-50, 34 U.S.P.Q.2d at 1569 (referring to 35 U.S.C. § 112, which provides that the specification shall set forth the best mode contemplated by the inventor).

[8] 48 F.3d 1172, 33 U.S.P.Q.2d (BNA) 1823 (Fed. Cir. 1995).

[9] *Id.* at 1176-77, 33 U.S.P.Q.2d at 1825.

[10] *Id.* at 1177, 33 U.S.P.Q.2d at 1825.

[11] *Id.,* 33 U.S.P.Q.2d at 1826.

[12] *Id.*

[13] *Id.* at 1180, 33 U.S.P.Q.2d at 1828 (The Federal Circuit felt the district court did not clearly err in finding that a reasonable examiner would have found the reference to be material.).

[14] *Id.* at 1183-86, 33 U.S.P.Q.2d at 1830-33.

[15] *Id.* at. 1185, 33 U.S.P.Q.2d at 1184.

[16] *Id.* at 1192, 33 U.S.P.Q.2d at 1839.

[17] *Id.*

[18] *Id.*

[19] *Id.* at 1190, 33 U.S.P.Q.2d at 1836.

[20] 60 F.3d 807, 35 U.S.P.Q.2d (BNA) 1570 (Fed. Cir. 1995) [[[hereinafter Trovato (1995)].

[21] *In re* Trovato, 42 F.3d 1376, 33 U.S.P.Q.2d (BNA) 1194 (Fed. Cir. 1994) [hereinafter Trovato (1994)].

[22] *Id.* at 1383, 33 U.S.P.Q.2d at 1200.

[23] *Trovato* (1995), 60 F.3d at 807, 35 U.S.P.Q.2d at 1570.

[24] 33 F.3d 1526, 31 U.S.P.Q.2d (BNA) 1545 (Fed. Cir. 1994).

[25] *Trovato* (1995), 60 F.3d at 807, 35 U.S.P.Q.2d at 1570-71; *see infra* part III.B for discussion of PTO guidelines.

[26] *Trovato* (1995), 60 F.3d at 808, 35 U.S.P.Q.2d at 1571.

[27] *Id.* at 807, 35 U.S.P.Q.2d at 1571.

[28] *Id.*

[29] *Id.* at 808, 35 U.S.P.Q.2d at 1572.

[30] *Id.*

[31] 53 F.3d 1583, 35 U.S.P.Q.2d (BNA) 1383 (Fed. Cir. 1995).

[32] *Id.*

[33] *Id.* at 1584, 35 U.S.P.Q.2d 1384.

[34] *In re* Lowry, 32 F.3d 1579, 1583, 32 U.S.P.Q.2d (BNA) 1031, 1034 (Fed. Cir. 1994).

[35] *Beauregard,* 53 F.3d at 1583-84, 35 U.S.P.Q.2d at 1384.

[36] *Id.*

[37] *Id.* at 1584, 35 U.S.P.Q.2d at 1384.

[38] Request for Comments on Proposed Examination Guidelines for Computer Implemented Inventions, 60 Fed. Reg. 28,778 (1995) (hereinafter Computer Invention Guidelines).

[39] *Id.*

[40] *See supra,* part II.A.3.

[41] The accompanying legal analysis is now available from the PTO.

[42] *Id.* at 28,778.

[43] *Id.*

[44] *Id.*

[45] *Id.* at 28,779.

[46] *Id.*

[47] *Id.*

[48] *Id.*

[49] *Id.*

[50] *Id.* at 28,778.

[51] *Id.*

[52] *Id.*

[53] *Id.* at 28,780 (clarifying article of manufacture).

[54] *Id.*

[55] *Id.*

[56] *Id.* at 28,779.

[57] *Id.* at 28,780.

[58] *Id.*

[59] *Id.*

[60] *Id.*

[61] *Id.* at 28,779.

[62] *Id.*

[63] The Software Patent Institute reportedly is working on making a database of software prior art available to both the PTO and the public. Currently, that database is not on-line.

[64] 51 F.3d 1560, 34 U.S.P.Q.2d (BNA) 1436 (Fed. Cir. 1995).

[65] *Id.* at 1563-64, 34 U.S.P.Q.2d at 1439.

[66] 35 U.S.C. § 102(b) (1988 & Supp. V 1993).

[67] *Brana,* 51 F.3d at 1562, 34 U.S.P.Q.2d at 1437.

[68] *Id.* at 1564, 34 U.S.P.Q.2d at 1439.

[69] *Id.* at 1569, 34 U.S.P.Q.2d at 1444.

[70] *Id.* at 1567, 34 U.S.P.Q.2d at 1442 (citing with approval *In re* Krimmel, 292 F.2d 948, 953, 130 U.S.P.Q. (BNA) 215, 219 (C.C.P.A. 1961)).

[71] *Brana,* 51 F.3d at 1568, 34 U.S.P.Q.2d at 1442.

[72] *Id.*

[73] *See infra* part III.A for a discussion of the PTO guidelines on utility.

[74] 51 F.3d 1552, 34 U.S.P.Q.2d (BNA) 1210 (Fed. Cir. 1995). It is interesting to note that Deuel was supported by an *amicus* brief argued by Donald S. Chisum.

[75] *Id.* at 1554-57, 34 U.S.P.Q.2d at 1211-14.

[76] *Id.* at 1556-57, 34 U.S.P.Q.2d 1213-14.

[77] *Id.* at 1560, 34 U.S.P.Q.2d 1216.

[78] *Id.* at 1559, 34 U.S.P.Q.2d at 1215.

[79] *Id.*

[80] *Id.* at 1557, 34 U.S.P.Q.2d at 1214.

[81] *Id.* at 1559, 34 U.S.P.Q.2d at 1215.

[82] *Id.* at 1559, 34 U.S.P.Q.2d at 1216.

[83] *Id.* at 1558, 34 U.S.P.Q.2d at 1215.

[84] Utility Examination Guidelines, 60 Fed. Reg. 36,263 (1995) [[[hereinafter Utility Guidelines].

[85] *Id.*

[86] The complete text of the legal analysis is available from the PTO and is reproduced by BNA as *Legal Analysis Supporting Utility Examination Guidelines,* 50 Pat. Trademark & Copyright J. (BNA) 297, 297-310 (July 20, 1995) [hereinafter Utility Legal Analysis].

[87] *Id.* at 297.

[88] *Utility Guidelines,* 60 Fed. Reg. at 36,264.

[89] *Id.*

[90] *Id.* at 36,265.

[91] *Id.*

[92] *Id.*

[93] *Utility Legal Analysis, supra* note 86, 50 Pat. Trademark & Copyright J. at 306-309.

[94] *Id.*

[95] *Id.* at 306.

[96] *Id.* at 310.

[97] 51 F.3d 1037, 34 U.S.P.Q.2d (BNA) 1217 (Fed. Cir. 1995).

[98] *Id.* at 1040, 34 U.S.P.Q.2d at 1219.

[99] 998 F.2d 931, 27 U.S.P.Q.2d 1241 (Fed. Cir. 1993), *cert. denied,* Regents of University of California v. Genentech, Inc. 114 S. Ct. 1126 (1994).

[100] *Genentech,* 998 F.2d at 939, 27 U.S.P.Q.2d at 1245.

[101] Serco, 51 F.3d at 1040, 34 U.S.P.Q.2d at 1219 (citing 28 U.S.C. § 1404(a) venue transfer considerations, such as availability of documents and witnesses). Defendant patent owner sent two cease and desist letters to plaintiff, accusing plaintiff of selling an infringing product. The second letter warned the plaintiff that defendant would file an infringement suit unless plaintiff stopped its infringing activity. Plaintiff filed suit in a Texas district court for a declaration that defendant's patent was invalid and noninfringed. Three days later, defendant filed suit in a Wisconsin district court seeking damages and injunctive relief from plaintiff's alleged infringement. Finding that plaintiff had filed its suit in anticipation of defendant's infringement action, the Texas district court granted defendant's motion to dismiss plaintiff's declaratory judgment suit in the Texas court. *Id.* at 1037-38, 34 U.S.P.Q.2d 1217-18.

[102] *Id.* at 1039, 34 U.S.P.Q.2d at 1219.

[103] *Id.* at 1040, 34 U.S.P.Q.2d at 1219.

[104] *Id.*

[105] 52 F.3d 967, 34 U.S.P.Q.2d (BNA) 1321 (Fed. Cir. 1995), *petition for cert. filed,* 64 U.S.L.W. 3068 (July 3, 1995). Plaintiff owned patent on an inventory control device for dry-cleaning and laundry establishments. Plaintiff brought suit against defendant alleging that defendant's invoice printer infringed plaintiff's patent.

[106] *Id.* at 970-71, 34 U.S.P.Q.2d at 1322.

[107] *Id.* at 979, 34 U.S.P.Q.2d at 1329.

[108] *Id.* at 981, 34 U.S.P.Q.2d at 1331.

[109] *Id.*

[110] [Ed.] Note, however, that the Supreme Court granted certiorari on September 27, 1995. 116 S. Ct. 40 (1995).

[111] *Id.* at 983, 34 U.S.P.Q.2d at 1333.

[112] *Id.* at 981, 34 U.S.P.Q.2d at 1331.

[113] 50 F.3d 966, 33 U.S.P.Q.2d 1907 (Fed. Cir. 1995), *vacated,* American Airlines v. Lockwood, 64 U.S.L.W. 3182 (Sept. 1, 1995).

[114] *Id.* at 976, 33 U.S.P.Q.2d at 1414.

[115] *Id.* at 974, 33 U.S.P.Q.2d at 1412.

[116] American Airlines v. Lockwood, 64 U.S.L.W. 3182 (Sept. 1, 1995).

[117] *Id.* It is interesting to note that, prior to the Supreme Court's order, Lockwood filed a motion to withdraw his demand for a jury trial. 50 Pat. Trademark & Copyright J. (BNA) 551.

118 *Id.*

119 55 F.3d 615, 34 U.S.P.Q.2d (BNA) 1816 (Fed. Cir. 1995).

120 *See id.* at 620, 34 U.S.P.Q.2d at 1819-20 (discussing the role of the claim preamble in claim construction generally).

121 *Id.,* 34 U.S.P.Q.2d at 1819.

122 *Id.* at 621, 34 U.S.P.Q.2d at 1820.

123 *Id.,* 34 U.S.P.Q.2d at 1821.

124 Id. at 619, 34 U.S.P.Q.2d at 1819 (citing Markman v. Westview Instruments, Inc., 52 F.3d 967, 978-80, 34 U.S.P.Q.2d (BNA) 1321, 1329 (Fed. Cir. 1995) (en banc)).

125 *Bell Communications,* 55 F.3d at 619-20, 34 U.S.P.Q.2d at 1819 (quoting United States v. Adams, 383 U.S. 39, 148 U.S.P.Q. (BNA) 479 (1966) for the second proposition)).

126 *Id.* at 620, 34 U.S.P.Q.2d at 1819.

127 *Id.,* 34 U.S.P.Q.2d at 1820.

128 *Id.* at 621, 34 U.S.P.Q.2d at 1820.

129 Claim 6 of the 4,706,080 patent, the only claim asserted by Bellcore, reads as follows:
6. A method for transmitting a packet over a system comprising a plurality of networks interconnected by gateways, said packet originated by a source device connected to one of said networks and destined for a destination device connected to one of said networks, said packet including a source address and a destination address, and said method comprising the steps of
defining an undirected graph representative of the system wherein said networks comprise graph nodes and said gateway[s] comprise graph paths,
defining a spanning tree on said graph such that every pair of said nodes is connected by only one of said paths and selecting a plurality of spanning trees for said graph according to predetermined system guidelines,
configuring each gateway with source address lists in correspondence to the number of trees having said each gateway comprising one of said paths, wherein said lists reduce to a common list whenever said selection of spanning trees results in identical ones of said lists for said each gateway,
assigning, by said source device, one of said trees to broadcast said packet and associating with said packet an identifier indicative of said one of said trees,
broadcasting said packet by said source device through the system on said one of said trees, and
for each gateway receiving said packet,
(i) determining for each said packet said source address, said destination address and said packet identifier,
(ii) if said receiving gateway does not process packets having said identifier, inhibiting forwarding of said packet; otherwise, inserting said source address in the corresponding one of said lists associated with said identifier, and
(iii) inhibiting forwarding of said packet if said destination address is in said corresponding list; otherwise, forwarding said packet by said receiving gateway.
Col. 10, ll.18-57.

130 55 F.3d at 621, 34 U.S.P.Q.2d at 1820.

131 *Id.*

132 *Id.*

133 *Id.*

134 *Id.,* 34 U.S.P.Q.2d at 1820-21.

135 768 F.2d 1318, 226 U.S.P.Q. (BNA) 758 (Fed. Cir. 1985).

136 *Bell Communications,* 55 F.3d at 621, 34 U.S.P.Q.2d at 1821.

137 *Id.*

138 *Id.*

139 *Id.*

140 *Id.,* 34 U.S.P.Q.2d at 1821.

141 *Id.* at 622, 34 U.S.P.Q.2d at 1821. The court found that the specification would show a person of ordinary skill in the art that an association with an identifier could be accomplished either explicitly (by inserting an additional "tree number" field), or implicitly (by inserting a destination address which could be used to determine a tree number). *Id.*

142 *Id.* at 622-23, 34 U.S.P.Q.2d at 1822. In addition to the association limitation, the district court also had found that a second limitation, the assignment of a message to a spanning tree, was not present in the accused device. Although the court agreed with the district court's conclusion based on the record, it nevertheless remanded because it was not clear that the accused device *never* operated in a claimed mode. *Id.* (emphasis in original).

143 62 F.3d 1512, 35 U.S.P.Q.2d (BNA) 1641 (Fed. Cir. 1995).

144 *Id.* at 1516, 35 U.S.P.Q.2d at 1644.

145 339 U.S. 605, 85 U.S.P.Q. (BNA) 328 (1950), *reh'g denied,* 340 U.S. 845 (1950).

146 *Hilton Davis,* 62 F.2d at 1518, 35 U.S.P.Q.2d at 1645. The court elaborated that while function, way, and result may have been sufficient for cases involving "relatively simple mechanical technology" of the kind encountered when the *Graver Tank* test was formulated, it may not always be sufficient when applied to today's more sophisticated technologies. *Id.* The court noted that in *Graver Tank,* the Supreme Court had endorsed the consideration of factors other than function, way, and result; indeed, the *Graver Tank* Court had itself relied on other factors: interchangeability known by a person skilled in the art, and evidence that supported an inference of copying. *Id.* at 1518-19, 35 U.S.P.Q.2d at 1645-46. From this endorsement, the court concluded that when the record contains other evidence regarding substantiality of differences, the fact-finder must consider it. *Id.* at 1518, 35 U.S.P.Q.2d at 1645.

147 *Id.* at 1518, 35 U.S.P.Q.2d at 1645.

148 *Id.* at 1519, 35 U.S.P.Q.2d at 1646. In *Graver Tank,* the court considered whether a person of ordinary skill in the art would have known that manganese in the accused infringer's flux was interchangeable with magnesium in the patentee's flux. *Id.* at 1518, 35 U.S.P.Q.2d at 1645.

149 *Id.* at 1519, 35 U.S.P.Q.2d at 1646.

150 *Id.* "When an attempt to copy occurs, the factfinder may infer that the copyist, presumably one of some skill in the art, has made a fair copy, with only insubstantial changes. Such an inference, of course, would not dominate the doctrine of equivalents analysis. Instead, where the inference arises, it must be weighed together with the other evidence relevant to the substantiality of the differences." *Id.*

151 *Id.* at 1521, 35 U.S.P.Q.2d at 1648.

152 *Id.* at 1520, 35 U.S.P.Q.2d at 1647.

153 *Id.* at 1522, 35 U.S.P.Q.2d at 1648.

154 *Id.* at 1519, 35 U.S.P.Q.2d at 1646.

155 *Id.*

156 *Id.* at 1519-20, 35 U.S.P.Q.2d at 1646.

157 35 U.S.P.Q.2d (BNA) 1622 (D. Minn. 1995).

158 *Id.* at 1625.

159 *Id.* at 1625. The unmarked product was sold by patentee Toro's licensee. *Id.* at 1624.

160 *Id.* at 1625.

161 *Id.* at 1626.

162 *Id.*

163 *Id.* at 1627.

164 56 F.3d 1538, 35 U.S.P.Q.2d (BNA) 1065, *petition for cert. filed,* 64 U.S.L.W. 3070 (July 24, 1995).

165 *Id.* at 1546-47, 35 U.S.P.Q.2d at 1066-67.

166 *Id.* at 1543, 35 U.S.P.Q.2d at 1067.

167 *Id.*

168 *Id.*

169 *Id.*

170 *Id.* at 1546, 35 U.S.P.Q.2d at 1069-70. An infringer causing lost sales of a competitive product is surely foreseeable; such losses constitute the full compensation set forth by Congress, as interpreted by the Supreme Court, while staying well within the traditional meaning of proximate cause. Such lost sales should therefore clearly be compensable. *Id.* at 1570, 35 U.S.P.Q.2d at 1069-70.

171 *Id.* at 1546-47, 35 U.S.P.Q.2d at 1070.

172 *Id.* at 1547, 35 U.S.P.Q.2d at 1068.

173 *Id.* at 1550-51, 35 U.S.P.Q.2d at 1073-74.

174 *Id.* at 1550, 35 U.S.P.Q.2d at 1073.

175 *Id.* at 1556, 35 U.S.P.Q.2d at 1078 (Nies, J., dissenting in part).

176 *Id.* at 1578, 35 U.S.P.Q.2d at 1096 (Newman, J., concurring in part and dissenting in part).

177 *Id.* at 1582, 35 U.S.P.Q.2d at 1099-100.

178 The Uruguay Round Agreements Act, Pub. L. No. 103-465, 1994 U.S.C.C.A.N. (108 Stat.) 4809 (codified as amended in scattered sections of Title 35 U.S.C.). The final PTO rules are published, in part, as *Changes to Implement 20-Year Patent Term and Provisional Applications,* 1174 Off. Gaz. Pat. Office 15-46 (May 2, 1995).

179 35 U.S.C. § 154 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4983-85. However, there are bills currently pending that would create an option between a 17 year term from issue and a 20 year term from filing. *See infra,* part IV.B.

180 35 U.S.C. § 111(b) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4986-87.

181 35 U.S.C. § 154 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4984 (adding subsection (a)(2)); 35 U.S.C. § 173 (1988).

182 35 U.S.C. § 154 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4984 (adding subsection (a)(2)); 35 U.S.C. § 365(c) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No.

103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4987.

183 35 U.S.C. § 154 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4984 (adding subsection (a)(2)).

184 35 U.S.C. § 365 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4987.

185 35 U.S.C. § 154(c)(1) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4984-85.

186 35 U.S.C. § 154 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4984 (adding subsection (b)).

187 37 C.F.R. §§ 113(a), 116(a) (1994).

188 35 U.S.C. § 154 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4984 (adding subsection (a)(2)).

189 Bruce A. Lehman, *Changes to Implement 20 Year Patent Term and Provisional Applications,* 1174 Off. Gaz. Pat. Office § 1.129(a) (1995).

190 *Id.*

191 *Id.*

192 *Id.*

193 *Id.* § 1.129(b)(2).

194 *Id.* § 1.129(c).

195 *Id.* at 16, 35 U.S.C. § 111(b) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4986-87.

196 *Id.*

197 37 C.F.R. § 1.53 (1994).

198 35 U.S.C. § 111(b) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4986 (adding subsection (b)(2)).

199 35 U.S.C. § 111(b) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4986-87.

[200] 35 U.S.C. § 111(b) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4987 (adding subsection (b)(3)(C)).

[201] 35 U.S.C. § 111(b) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4986 (adding subsection (b)(1)(A)).

[202] 35 U.S.C. § 111(b) (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4987.

[203] *Id.*

[204] 35 U.S.C. § 119 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4985.

[205] 35 U.S.C. § 112 (1988).

[206] 35 U.S.C. § 154 (1988), *as amended by* Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 1994 U.S.C.C.A.N. (108 Stat.) at 4983-85.

[207] 35 U.S.C. § 102 (1988).

[208] *See* 50 Pat. Trademark & Copyright J. (BNA) 159 (June 8, 1995) (discussing the approval of HR 587, Moorhead, by subcommittee); *see also* 50 Pat. Trademark & Copyright J. (BNA) 372 (June 15, 1995) (discussing the introduction of counterpart S 1111, Hatch).

[209] *See* 50 Pat. Trademark & Copyright J. (BNA) 372.

[210] *See* 50 Pat. Trademark & Copyright J. (BNA) 174 (June 15, 1995) (discussing subcommittee hearing for HR 1732, Moorhead); 50 Pat. Trademark & Copyright J. (BNA) 331 (Aug. 2, 1995) (discussing the introduction of S 1070, Hatch).

[211] *See* 50 Pat. Trademark & Copyright J. 174 (June 15, 1995) (discussing a subcommittee hearings for HR 1733, Moorhead).

[212] *See* 50 Pat. Trademark & Copyright J. (BNA) 365 and 397 (Aug. 10, 1995) (discussing the introduction of HR 2235, Moorhead, and providing a copy of text).

[213] *See* 49 Pat. Trademark & Copyright J. (BNA) 530 (Mar. 9, 1995) (discussing the introduction of HR 1127, Ganske).

[214] *See* 49 Pat. Trademark & Copyright J. (BNA) 259 and 264 (Jan. 12, 1995) (discussing the introduction of HR 359, Rohrbacher, and providing copy of text) *and* 49 Pat. Trademark & Copyright J. (BNA) 335 (Feb. 2, 1995) (discussing the introduction of S 284, Dole).

[215] *See* 50 Pat. Trademark & Copyright J. (BNA) 516 and 526 (Aug. 24, 1995) (discussing the introduction of S 1191, Pryor).

[216] *See* 50 Pat. Trademark & Copyright J. (BNA) 181 and 189 (June 15, 1995) (discussing the introduction of S 909, Lieberman).

[217] *Changes to Implement 20-Year Patent Term and Provisional Applications,* 1174 Off. Gaz. Pat. Office 15-46 (May 2, 1995).

[218] Changes to Implement 18-Month Publication of Patent Applications, 60 Fed. Reg. 42,352 (1995).

[219] Rules of Practice in Patent Cases; Reexamination Proceedings, 60 Fed. Reg. 41,035 (1995).

[220] WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, INFORMATION INFRASTRUCTURE TASK FORCE, U.S. DEP'T OF COMMERCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS (1995).

[221] *Id.* at 236.

[222] *Id.*