

-----Original Message-----

From: Robert Resis [mailto:RResis@bannerwitcoff.com]

Sent: Wednesday, May 03, 2006 10:11 AM

To: AB93Comments

Cc: Robert Resis

Subject: Comments by Robert H. Resis

Dear Commissioner,

My comments relating to the proposed rules announced on January 3, 2006 are contained in my attached articles. Specifically, attached is a copy of;

1. "Let continuations go on," The National Law Journal (February 27, 2006).
2. "Solutions for Reducing Patent Application Pendency." This article will soon be published in The John Marshall Law School "News Source" publication.
3. "Reducing the Need for Markman Determinations," 4 J. MARSHALL REV. INTELL. PROP. L. 53 (2004). This article is referred to in the above article entitled "Solutions for Reducing Patent Application Pendency."

Very truly yours,
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OPINION

■ PROPOSED PTO RULES ■

Let continuations go on

By Robert H. Resis SPECIAL TO THE NATIONAL LAW JOURNAL

THE U.S. PATENT and Trademark Office (PTO) recently proposed new rules that, if adopted, will require patent continuation applicants to show why their “amendment, argument, or evidence presented could not have been previously submitted.” 71 Fed. Reg. 48-61 (Jan. 3, 2006). Comments to the proposed rules are due on May 3. The proposed rules would apply to any second or subsequent continued examination filings, whether a continuation application, a continuation-in-part (CIP) application or a request for continued examination.

The PTO asserts that “current continued examination practice...[is] impairing the Office’s ability to examine new applications without real certainty that these practices effectively advance prosecution, improve patent quality, or serve the typical applicant or the public.” But the PTO acknowledges that its “proposed requirements for seeking second and subsequent continuations will not have an effect on the vast majority of patent applications.” According to PTO 2005 statistics, fewer than 7% of applications would be affected by the proposed rules.

Other reasons for the backlog

The PTO does not make a showing that the pending backlog of applications is due to an increase in second and subsequent continuations. The “commentator” article cited by the PTO in support of the proposed rules notes that the percentage of patents issuing on continuation applications has been about the same as it was 30 years ago—around 23%. Further, continuation applications are easier for examiners to act on since the examiners are already familiar with the

disclosures in the parent applications. The root of the growing backlog problem is the continued siphoning of funds from the PTO over the years—funds that applicants have been paying for timely application examination.

The proposed rules ignore important benefits of our current patent laws and rules. The current system allows inventors to build patent portfolios, which investors, bankers and venture capitalists demand. Currently, an inventor can file as many continuation applications deemed appropriate so that later claims supported by the parent application are entitled to the effective filing date of the parent application. With one exception, the proposed changes will stifle the building of patent portfolios and, in turn, stifle investment, innovation and commercialization of inventions. (The only change that should be adopted is the one that requires a CIP applicant to declare which claims are disclosed in the prior-filed application, and thus are entitled to the prior-filed application date.)

“While continuations are filed in 23% of all patent applications, patents based on continuation applications represent 52% of all litigated patents.” Mark A. Lemley et al., “Ending Abuse of Patent Continuations,” 84 B.U. L. Rev. 63, 70 (2004). Since litigation is a strong indicator of patent value, continuation practice should not be curtailed.

Congress recognized that flexibility is warranted when it passed the governing patent statute on continuation practice, 35 U.S.C. 120. Indeed, it can be argued that the proposed rules are inconsistent with the broad mandate of § 120, and that the PTO does not have the authority to adopt them. See *Application of Henriksen*, 399 F.2d 253, 262 (C.C.P.A. 1968) (“it is for the Congress to decide...whether such

a restriction [on continuation applications]... is to be imposed”).

The PTO appears to underestimate the number of appeals of final rejections that many applicants currently avoid by filing continuation applications—a number that would increase under the proposed rules. The PTO also appears to underestimate the time it will spend resolving petitions under the proposed rules.

There are other ways the PTO can and should streamline the patent application process, reduce its backlog of applications and bring more certainty to our patent system. The PTO’s concurrent proposal to require an examination support document if an applicant wants initial examination of more than 10 claims will reduce application backlog much more than the proposed rules. The PTO also should require applicants to provide

Proposed rules would stifle innovation.

the meaning of their key claim terms at the time each claim is presented to an examiner, and to place in issued patents all alternative, synonymous language presented by the applicant during prosecution just prior to the claims.

Other than requiring CIP applicants to identify claim-priority dates, the proposed continuation rules should not be adopted because they will curtail the flexibility that inventors need to build patent portfolios. Any benefit from these rules would be more than offset by the irreparable decreases in investment, innovation and commercialization of inventions resulting from these rules. ■

Robert H. Resis is a shareholder at Chicago-based Banner & Witcoff, an intellectual property law firm.

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SOLUTIONS

for Reducing Patent Application Pendency

by Robert H. Resis

Patent application pendency in the U.S. Patent and Trademark Office is on the rise. In certain arts, applicants can expect to wait more than four years until receiving a first office action from the PTO.¹ On January 3, 2006, the PTO



Robert H. Resis

proposed new rules to reduce the backlog of pending patent applications. The proposed rules are directed at: (1) limiting second and subsequent continuing applications and requests for continued examination (RCE), and (2) focusing initial examination on ten representative claims.²

The proposed rules directed at limiting second and subsequent continuing applications and RCEs **should not** be adopted because they will adversely impact innovation, and it does not appear that they will solve the pendency problems in the PTO. The proposed rules directed at focusing initial examination on ten representative claims **should** be adopted because they do not adversely impact innovation, and it appears that they are a fair compromise that will greatly reduce application backlog.

Proposed Rules for Second and Subsequent Continuing Applications and RCEs

The proposed rules for second and subsequent continuing applications and RCEs, if adopted, will require applicants to show why their “amendment, argument, or evidence presented could not have been previously submitted.”³ The

PTO asserts that the “current continued examination practice . . . [is] impairing the Office’s ability to examine new applications without real certainty that these practices effectively advance prosecution, improve patent quality, or serve the typical applicant

or the public.”⁴ The PTO acknowledges, however, that its “proposed requirements for seeking second and subsequent continuations will not have an effect on the vast majority of patent applications.”⁵ Notably, the PTO does *not* make a showing that the pending backlog of applications is due to any increase in second and subsequent continuations.

The growing backlog of pending applications is not due to an increase in continuation applications. The “commentator” article cited by the PTO in its Supplementary Information to the proposed rules noted that the percentage of patents issuing on continuation applications has been about the same as it was 30 years ago.⁶ In addition, continuation applications are easier for examiners to review and act on since the examiners are already familiar with the disclosures in the corresponding parent applications. Further, continuation application fees generate revenue for the PTO, which, in the past, has been siphoned out of the PTO for other federal programs.

The backlog problem is due to the continued siphoning of funds from the PTO over the years, which has prevented the PTO from hiring, training, and retaining a sufficient

number of examiners to process the increase in patent application filings. This problem is particularly acute in certain scientific fields, such as electrical engineering.

The proposed rules to limit second and subsequent continuing applications and RCEs ignore important benefits of our current laws and rules. Most importantly, current laws and rules allow patent applicants to build patent portfolios. An inventor who has made a valuable discovery will be more likely able to commercialize and/or license the invention if the inventor has the flexibility to build a patent portfolio based on and/or made possible by his/her valuable discovery. Investors demand patent portfolios. With one exception, the proposed rules on continued application practice will stifle inventors from building patent portfolios, stifle commercialization of inventions, and stifle innovation.⁷

“While continuations are filed in 23% of all patent applications, patents based on continuation applications represent 52% of all litigated patents.”⁸ Since litigation is a strong indicator of patent value, continuation practice should not be curtailed.⁹

Examples of the type of innovations that are made possible under current continuation laws and rules, and which would not be possible under the proposed rules are:

Example 1

Inventor A, a university researcher, makes a discovery. Inventor A files a parent application that discloses Species 1, 2, 3, and 4, and contains claims 1-20. Inventor

for Reducing Patent Application Pendency

A assigns all rights in the parent application to the university.

During prosecution, the PTO rejects claims 1–20 (all of which are drawn to a genus that includes Species 1, 2, 3, and 4) as being obvious in view of prior art, but states that if the claims are rewritten to claim only Species 1, the claims would be allowable. Rather than delay issuance of claims to allowed subject matter, the university has Inventor A amend those claims to place them in condition for allowance, and file a first continuation application with new claims 1–20 (with new independent claim 1 drawn to the sub-genus covering Species 2, 3, and 4).

After the university pays the issue fee and the parent application issues as a patent, the PTO finally rejects claims 1–20 in the first continuation application. Rather than appeal the final rejection, Inventor A files a second continuation application, this time with claims 1–20 (with new independent claim 1 drawn to the genus drawn to Species 1, 2, 3, and 4, and including a new limitation). The claims of second continuation could have been previously submitted in the earlier applications. The first continuation application becomes abandoned.

Inventor A's research position with the university is being terminated, and Inventor A founds start-up Company Z upon the university's agreement to license the technology to Company Z. Company Z agrees to pay for continued prosecution and to pay royalties to the university upon commercialization of the technology, including any claimed invention that claims priority to the parent application or any continuation, divisional, or CIP applications claiming priority

to the parent application. After the signing of the Licensing Agreement, Inventor A leaves the employ of the university and joins Company Z as its chief technology officer.

Company Z then raises money from investors to commercialize the technology. Investors make their investment in Company Z because they know that due to the pendency of the second continuation application, claims supported by the parent application are entitled to the effective filing date of the parent application. For example, investors know that due to the pendency of the second continuation application, Inventor A can seek additional patent claims for the subject matter disclosed in the parent application without the possibility that the published parent application or the parent patent can be used as prior art against those additional patent claims.

After the parent application issues as a patent and the first continuation application becomes abandoned, the PTO allows claims 1–20 in the second continuation application. Around the same time, Inventor A, while using the money raised by Company Z, conducts tests showing that Species 2 provides unexpected results over the cited prior art. The technology for these tests existed during and after the prosecution of the parent application.

Rather than delay the issuance of allowed claims 1–20 in the second continuation application, Company Z pays the issue fee.

Prior to issuance of the patent on the second continuation application, Inventor A files a CIP application and includes in the specification the tests showing the unexpected results of Species 2

over the prior art. Claims 1–20 of the CIP are drawn to Species 2.

The CIP application, which is supported by the disclosure in the parent application, issues with claims different from the claims presented in the parent application, the first continuation application, and the second continuation application.

The invention claimed in the patent issued from the CIP application proves to be a commercial success, and Company Z pays royalties to the university under their License Agreement. The claims issuing from the parent application and the second continuation application do not cover the commercially successful embodiment.

Under the PTO's proposed rules, Inventor A would not have been permitted to file the second continuation application because he could not show why his "amendment, argument, or evidence presented could not have been previously submitted." Under the PTO's proposed rules, investors would not have invested in Company Z because there would have been no pending application, and the published parent application and the patent issuing on the parent application would be prior art to any subsequent application of Inventor A. In this example, under the PTO's proposed rules, Company Z never would have been able to raise the money for the further research that enabled Inventor A to show in the prosecution of the CIP application that the invention drawn to Species 2 (which he disclosed in his parent application), provides unexpected results over the prior art.

Example 2

Same facts as Example 1.

While the patented Species 2 is a commercial success, sales are

limited because Company Z does not have low-cost, large-scale manufacturing facilities, and/or an experienced sales force and distribution network. The commercial success of patented Species 2 gets the attention of Company Y, a large-entity competitor that recently laid off workers and has several large-scale manufacturing plants sitting idle. Company Y's attempts to design around the claims drawn to Species 2 are unsuccessful. Company Y agrees to purchase Company Z so that (1) it can re-hire workers and use its idle plants to make patented Species 2; and (2) so that its Inventors B and C can work with Inventor A.

After the patent drawn to Species 2 issues, and after Company Y purchases Company Z, Inventors A, B, and C make a joint invention that involves Species 5, 6, and 7.

Inventors A, B, and C file a joint application, disclosing but not claiming a series of preferred amounts for Species 5, 6, and 7. Inventors A, B, and C assign their rights to Company Y.

The joint application issues as a patent, with claims drawn to Species 5, 6, and 7.

Company Y starts selling the invention drawn to Species 5. This patented invention proves to be an even greater commercial success than patented invention drawn to Species 2 (made by Inventor A in Example 1).

Under the PTO's proposed rules, Company Z would not have any patent covering the invention drawn to Species 2, Company Y would not have purchased Company Z, and Company Y's manufacturing plants and laid-off

workers would have continued to sit idle. Under the PTO's proposed rules, since Company Y would not have purchased Company Z, Inventors A, B, and C would not have collaborated with each other to make the inventions disclosed in their joint application.

There are *real world* instances similar to the above examples wherein innovations were made possible only because of our current continuation laws and rules, and which would not be possible under the proposed rules.

Congress recognized that flexibility is warranted when it passed the governing patent statute on continuation practice, 35 U.S.C. § 120. That statute provides that *any* application meeting the requirements of § 112 and § 363 “shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application”

Congress did not encumber continuation applicants with the burdens that the proposed PTO rules would place on them.

Indeed, it can be argued that the proposed rules are inconsistent with the broad mandate of 35 U.S.C. § 120 and that the PTO does not have the authority to adopt them. *See Application of Henriksen*, 399 F.2d 253, 262 (C.C.P.A. 1968) (“it is for the Congress to decide, with the usual opportunity for public hearing and debate, whether such a restriction [on continuation applications] as sought by the board is to be imposed”).

In addition to the loss of benefits provided under current law, it appears that the proposed rules will

not alleviate the backlog problems they are purportedly designed to reduce. Second or subsequent continuing application and RCEs constitute less than 7% of total applications filed.

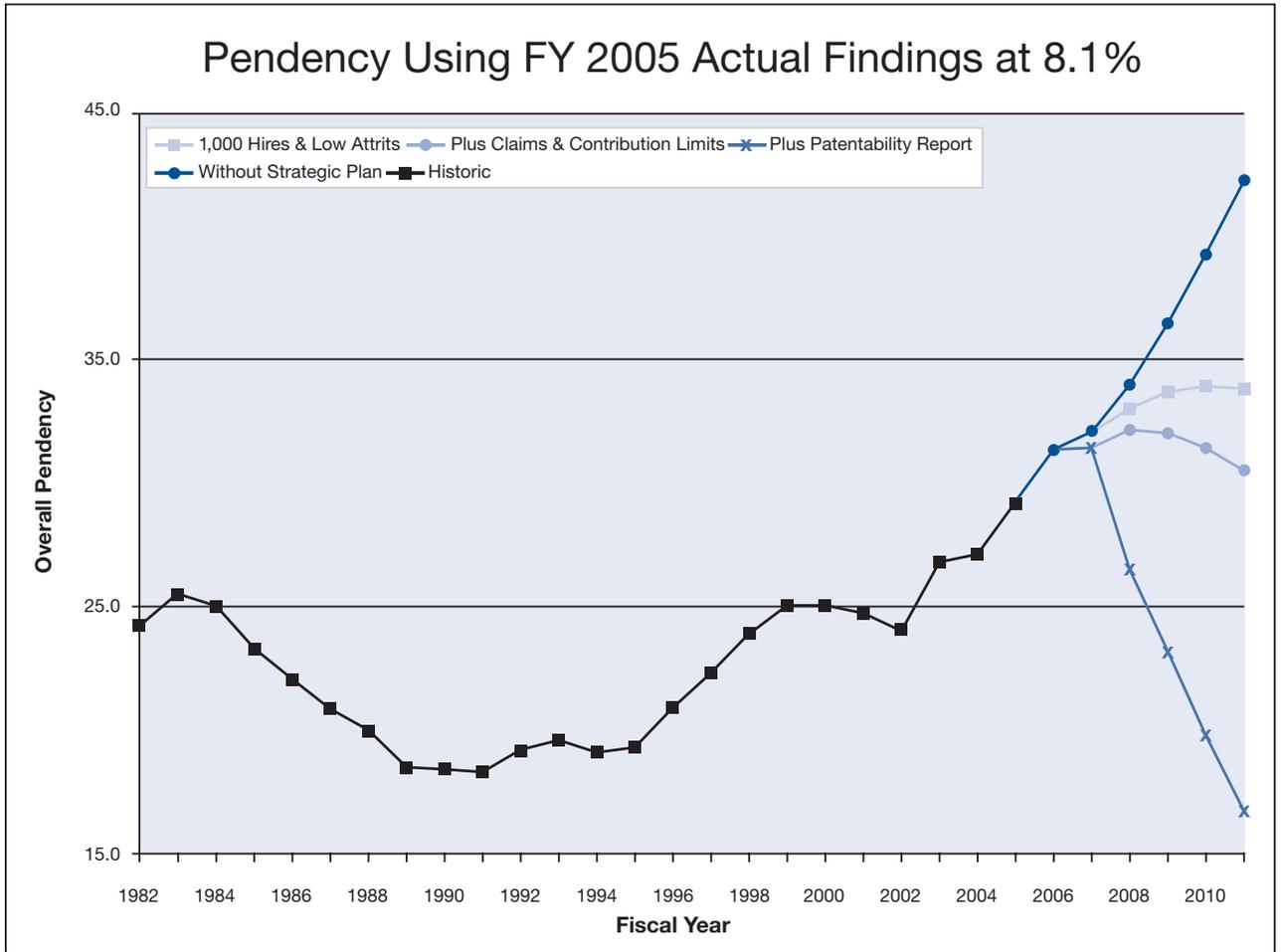
Moreover, it does not appear that the proposed rules will actually reduce the backlog of pending applications in the PTO. The proposed rules underestimate the corresponding increase in appeals of final rejections that are currently avoided under current continuation laws and rules. The proposed rules will give rise to new petitions that will require examiners to make subjective determinations and distract them from the objective determinations of patent claim validity they are trained and employed to make. The proposed rules underestimate the time the PTO will spend evaluating and resolving a new source of appeals—i.e., the denials of petitions under the proposed rules.

The proposed restriction on second and subsequent continuing applications and RCEs should not be adopted because, among other things, it will curtail the flexibility that inventors need to build patent portfolios. Any benefit from this proposed restriction, which is suspect for the reasons noted above, would be more than offset by the irreparable decreases in investment, innovation, and commercialization resulting from the proposed restriction.

Proposed Rule Focusing Initial Examination on Ten Representative Claims

The proposed rule directed at focusing initial examination on ten representative claims is a fair compromise that will greatly reduce application backlog. At the town hall meeting on February 1, 2006, the PTO provided a series of slides on actual and projected

for Reducing Patent Application Pendency



Source: Slide 53 from PTO Town Hall Meeting, February 1, 2006.

pendency of applications. The first slide shows a steady increase in pendency before and after FY 2005 if no action is taken.

The only “projection” slide that shows a substantial *pendency decrease* after FY 2005 is the one based on the proposed change to require a patentability report (also called an “examination support document”) when an applicant presents more than ten representative claims for initial examination (see slide above). The proposed examination support document is similar to a Petition to Make Special for accelerated examination under 37 CFR 1.102 and MPEP 708.02 (VIII).

This proposed rule provides flexibility and is an objective solution to the

backlog problem. Moreover, it appears to provide a much greater reduction to the backlog problem than the proposed rules on second and subsequent continuing applications and RCEs.

Other Rules the PTO Should Consider to Reduce Pendency

Other ways the PTO can and should streamline the patent application process, reduce its backlog of applications, and bring more certainty to our patent system are as follows:

- (1) require strict compliance with 35 U.S.C. § 112, ¶ 2 and 37 C.F.R. § 1.75(d)(1), *i.e.*, require that terms used in claims be ascertainable by

reference to the description section of the specification;

- (2) require applicants to identify which claim terms are “means-plus-function” elements, identify the functions of those elements, and identify the corresponding structures, materials or acts for performing each specified function at the time the claims are presented to the patent examiner; and

- (3) require applicants to provide the meaning of their key claim terms at the time each claim is presented to the patent examiner, and to place all alternative, synonymous language presented by the applicant just prior to claims in issued patents.

See Robert H. Resis, “Reducing the Need for Markman Determinations,”

4 *John Marshall Review of Intellectual Property Law* 53 (2004).

Conclusion

The only changes proposed by the PTO that should be adopted are the ones dealing with patentably indistinct claims, requiring CIP applicants to declare which CIP claims are disclosed in a prior-filed application, and the focusing of initial examinations on ten representative claims in each application (with an applicant's option for examination of more claims upon submission of an examination support document). Other changes the PTO should consider making include requiring applicants to provide alternative, synonymous language for their key claim terms at the time of claim presentment. Any changes to our patent system to reduce pendency must not adversely impact innovation.

Robert H. Resis

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Notes

1. Examples of First Action Pendency by Art Areas per PTO: 52.1 months in Art Unit 3628 (Finance & Banking, Accounting) and 50.4 months in Art Unit 2617 (Interactive Video Distribution). See presentation slides from PTO town hall meeting on February 1, 2006 in Chicago, Illinois. The commissioner of patents stated at this meeting that the presentation slides would be placed on the PTO's Web site in due course.

2. See Federal Register, Vol. 71, No. 1, January 3, 2006, pp. 48-61 and 61-69, which can be downloaded from the U.S. PTO Web site. Comments to the proposed rules are due May 3, 2006.

3. See Federal Register, Vol. 71, No. 1, January 3, 2006, pp. 48-61. The PTO also proposes rules that require all

patentably indistinct claims be submitted in a single application where multiple applications have the same effective filing date, overlapping disclosure, a common inventor, and common assignee. The benefits to the PTO and the public resulting from the proposed rules on applications containing patentably indistinct claims appear to outweigh any increased burden on patent applicants.

4. See Federal Register, Vol. 71, No. 1, January 3, 2006, at p. 50, col. 1. The PTO also proposes rules so that when an applicant (or assignee) files multiple applications with the same effective filing date, a common inventor, and overlapping disclosures, the Office will presume that the applications contain patentably indistinct claims. Under the proposed rules, the applicant must rebut the presumption by explaining how the applications contain only patentably distinct claims, or submit appropriate terminal disclaimers and explain why two or more pending applications containing patentably indistinct claims should be maintained. *Id.* at p. 51, cols. 2-3. The benefits to the PTO and the public resulting from the proposed rules on applications containing patentably indistinct claims appear to outweigh any increased burden on patent applicants.

5. See Federal Register, Vol. 71, No. 1, January 3, 2006, at p. 50, col. 2. Indeed, according to PTO statistics for fiscal year 2005, less than 7% of applications would be affected by the proposed rules.

6. See Mark A. Lemley and Kimberly A. Moore, "Ending Abuse of Patent Continuations," 84 *B. U. L. Rev.* 63, 69 (2004) (noting that for example, in 1976, the percentage of issued patents that were continuations was 23%, and that in recent years, continuation patents constitute about 25% of all issued patents).

7. The only proposed rule directed at continuing applications that should be adopted is the one that requires CIP applicants to identify which CIP claim or claims are disclosed in the prior-filed application, and thus are entitled to the prior-filed application date. See Federal Register, Vol. 71, No. 1, January 3, 2006, at p. 54, col. 2.

8. Mark A. Lemley and Kimberly A. Moore, "Ending Abuse of Patent Continuations," 84 *B.U.L. Rev.* 63, 70 (2004).

9. See John R. Allison, Mark A. Lemley, Kimberly A. Moore, and R. Derek Trunkey, "Valuable Patents," 92 *Georgetown Law Journal* 435, 439 (2004), reprinted in *Intellectual Property Law Review* (2005).

THE JOHN MARSHALL REVIEW OF INTELLECTUAL PROPERTY LAW



REDUCING THE NEED FOR *MARKMAN* DETERMINATIONS

ROBERT H. RESIS, ESQ.

ABSTRACT

The uncertainty as to whether claim interpretation decisions will survive appeal is an ever growing concern as the Federal Circuit's reversal rate of lower court claim interpretations averages fifty percent. At a minimum, uncertainty in claim construction prolongs patent infringement disputes. Moreover, the reality is that many times it is the uncertainty of a claim's scope and meaning that leads to litigation in the first place. In order to alleviate this stress on patentees, competitors and the federal court system, most if not all questions regarding the scope and meaning of claim terms should be clarified by the applicant during patent prosecution. The applicant should be required to specifically define the claim terms either by referencing a specific dictionary definition(s) or providing alternative, synonymous wording. Although these are steps that would likely occur during a *Markman* or claim construction hearing, taking preemptive action during prosecution will reduce the complexity of such hearings—if not eliminate the need for them altogether—and will assure that the scope and meaning of claim terms are readily apparent from the moment the applicant applies for a patent.

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Cite as Robert H. Resis, *Reducing the Need for Markman Determinations*, 4 J. MARSHALL REV. INTELL. PROP. L. 53 (2004).

REDUCING THE NEED FOR *MARKMAN* DETERMINATIONS*

ROBERT H. RESIS, ESQ.**

INTRODUCTION

The existing patent system has been criticized for its failure to eliminate uncertainty as to the scope and meaning of patent claim terms.¹ *Markman* hearings to determine the scope and meaning of claim terms are hotly contested proceedings because they control—and sometimes immediately resolve—validity and infringement determinations.² At a minimum, uncertainty in claim construction substantially prolongs patent infringement disputes.³ Indeed, many times the uncertainty as to a claim's scope and meaning in and of itself will give rise to a patent dispute.⁴ This uncertainty is exacerbated by the Federal Circuit's fifty percent reversal rate of lower courts' *Markman* decisions.⁵ A single patent

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¹ Timothy P. Ryan, *Markman: Where Are We Now? An Update on Developments & Trends in Claim Construction*, in PROCEEDINGS OF THE A.B.A. SEC. INTELL. PROP. L. CONFERENCE (San Francisco, CA, June 23–27, 1999) (“The implementation of *Markman* has raised more questions than it has resolved, and the impact on the creation of a unique procedure for patent infringement litigation has spawned uncertainty, rather than eliminated it, as *Markman* intended.”).

² See, e.g., *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996). After the district court agreed with Conceptoronic's claim construction, “Vitronics . . . conceded that the court was required to grant judgment as a matter of law in favor of Conceptoronic, as Vitronics had not presented any evidence of infringement under the court's interpretation of solder flow temperature.” *Id.*

³ There is no requirement for district courts to make a *Markman* determination on the scope and meaning of the claims at the outset of litigation. See *id.* In *Vitronics*, the district court delayed announcing its claim construction until hearing all of the evidence put forth at trial. *Id.* On appeal, the Federal Circuit reversed and remanded because the specification dictated a claim interpretation in accordance with Vitronics's proposed construction, and so construed, the patent may have been infringed. *Id.*; accord William F. Lee & Anita K. Krug, *Still Adjusting to Markman: A Prescription for the Timing of Claim Construction Hearings*, 13 HARV. J.L. & TECH. 55, 57 (1999) (arguing that the most appropriate time for a *Markman* hearing is after the needed discovery has been completed but before the trial begins); JAMES M. AMEND, PATENT LAW – A PRIMER FOR FEDERAL DISTRICT COURT JUDGES 13–14, 65–67 (1998) (proposing “Plaintiff's Claim Chart” on infringement sixty days after the complaint is filed, “Defendant's Claim Chart” of non-infringement thirty days later, and ninety days later the district court hold a *Markman* hearing).

⁴ See *Vitronics*, 90 F.3d. at 1582.

⁵ See Mark T. Banner, *Changes in Patent Trial and Appellate Practices: Reversal and Addressing the Problems*, in PROCEEDINGS OF THE 48TH ANNUAL CONFERENCE ON DEVS. IN INTELL. PROP. L. (The John Marshall Law School, Feb. 27, 2004) (reporting that in calendar year 2003, the Federal Circuit decided ninety-one cases where the issue of claim construction was at issue, and that the Federal Circuit reversed district courts' claim construction forty-eight times, or fifty-three percent of the time, and that the reversal changed the result in forty-one of the ninety-one cases, or forty-five percent of the cases); accord *Cybor Corp. v. Fas Techs., Inc.*, 138 F.3d 1448, 1476 & n.4 (Fed. Cir. 1998) (Rader, J., dissenting) (stating that between April 5, 1995 (the date of the Federal

infringement case can take years and frequently will run into the millions of dollars for both the patent owner and the accused infringer.⁶

Claim construction need not and should not be an issue in litigation. Rather, the issue of claim construction can and should be resolved before patent issuance. The patent laws and regulations; specifically, 35 U.S.C. § 112, ¶ 2 and 37 C.F.R. § 1.75(d)(1), already dictate that the scope and meaning of claims must be ascertainable by reference to the patent specification. Thus, theoretically, strict compliance with both 35 U.S.C. § 112, ¶ 2 and 37 C.F.R. § 1.75(d)(1) would eliminate the need for *Markman* hearings.

Further, patent applicants should be required to identify: (1) which claim terms are “means-plus-function” elements; (2) the functions of those elements; and (3) the corresponding structures, materials or acts for performing each specified function at the time the claims are presented to the patent examiner. This would eliminate the need for a *Markman* hearing to determine whether 35 U.S.C. § 112, ¶ 6 applies to a given claim term; and, if so, the need for a *Markman* hearing to determine the function(s) of the term, as well as the corresponding structure, material or act for performing each specified function.⁷

Finally, applicants should be required to provide the meaning of their key claim terms at the time each claim is presented to the patent examiner. All statements of the patent applicant on the scope and meaning of the claim terms should be placed into the patent specification, in front of the claims. This procedure would not involve the addition of new matter because the specification as originally filed must support the claims and provide at least a cursory definition of the terms used in each.

The three approaches above, separately or in combination, will bring more certainty to our patent system. This certainty would benefit both patent applicants and market competitors alike.

I. REQUIRE STRICT COMPLIANCE WITH 35 U.S.C. § 112, ¶ 2 & 37 C.F.R. § 1.75(d)(1) DURING PATENT PROSECUTION

The Code of Federal Regulations states in part:

The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims

Circuit’s decision in *Markman*) and November 24, 1997, the Federal Circuit’s reversal rate, “in whole or in part,” as to claim construction was almost forty percent).

⁶ AM. INTELL. PROP. L. ASS’N, 2003 REPORT OF THE ECONOMIC SURVEY 21, 22 (2003). In 2003, the median estimated cost of a patent infringement suit with \$1–25 million at risk, inclusive of all costs through appeal, was \$2 million per party. *Id.*

⁷ Section 112, ¶ 6 allows for claims to be expressed in means-plus-function form, specifically setting forth:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6 (2000).

must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.⁸

This provision of the Federal Regulations, 37 C.F.R. § 1.75(d)(1), requires terms used in claims to be ascertainable by reference to the description section of the patent specification.⁹ However, the Federal Circuit has rarely cited § 1.75(d)(1) for any such proposition.

The integrity and fairness of the patent system would be strengthened if the U.S. Patent and Trademark Office (“USPTO”) required strict compliance with § 1.75(d)(1) prior to issuing a patent. Arguably, issued patent claims should not need a *Markman* hearing because the meaning of the terms in the claim should be ascertainable by reference to the description in the patent.

The second paragraph of 35 U.S.C. § 112, ¶ 2 requires the specification of a patent to “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”¹⁰ The Federal Circuit has held that “[t]he test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification.”¹¹ Thus, any claim read in light of the specification that does not apprise those skilled in the art of the scope of that claim is invalid under § 112, ¶ 2. When claims are read in light of the specification, the meaning of the terms used in each should be sufficiently apparent to apprise those skilled in the art of the scope of a given claim. Therefore, issued patent claims, which presumably conform with § 112, ¶ 2, should never require a *Markman* hearing—theoretically.

In their specifications, patent applicants should be required to provide clear support for the terms used in their claims so the meanings of those terms are ascertainable by reference to the application’s written description. According to the Federal Circuit, the intrinsic record for claim construction includes not only the claims, but also the patent’s specification and prosecution history.¹² The Federal Circuit also has held that the claims are not limited to the preferred embodiment(s) disclosed in the detailed description.¹³ To avoid being limited to what they specifically disclose, patent applicants can simply draft dependent claims that are broader than their preferred embodiment(s). Regardless, patent applicants are presumably not limited to the preferred embodiment(s). The discussions in the following sections exemplify how requiring strict compliance with 35 U.S.C. § 112, ¶ 2 and 37 C.F.R. § 1.75(d) prior to patent issuance would have eliminated the need for a *Markman* hearing in three seminal Federal Circuit cases.

⁸ 37 C.F.R. § 1.75(d)(1) (2004).

⁹ See *Tandon Corp. v. U.S. Int’l Trade Comm’n*, 831 F.2d 1017, 1024 (Fed. Cir. 1987).

¹⁰ 35 U.S.C. § 112, ¶ 2. The second paragraph of § 112 is known as the “definiteness” requirement. See *Miles Labs., Inc. v. Shandon, Inc.*, 997 F.2d 870, 875 (Fed. Cir. 1993).

¹¹ *Id.*; accord *SmithKline Beecham Corp. v. Apotex Corp.*, 365 F.3d 1306, 1314 (Fed. Cir. 2004) (stating that in order “[t]o satisfy [the] requirement [of § 112, ¶ 2], the claim, read in light of the specification, must apprise those skilled in the art of the scope of the claim”).

¹² See *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

¹³ See *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1344 (Fed. Cir. 2001).

A. *Case Study One*: Markman v. Westview Instruments, Inc.

In *Markman*, the patent at issue was entitled “Inventory Control and Reporting System for Drycleaning Stores.”¹⁴ The district court instructed the jury to determine the meaning of the claims as understood by those of ordinary skill in the art using the relevant patent documents, including the specification, the drawings and the file history, and then compare the claims with the accused device to determine if there was infringement.¹⁵ After a jury verdict of infringement, the district court granted the defendant’s motion for judgment as a matter of law.¹⁶ The district court found that the claim term “inventory” meant “articles of clothing” and not simply “transaction totals” or “dollars.”¹⁷ The district court also found that the accused devices did not have the claimed “means to maintain an inventory total.”¹⁸ The Federal Circuit affirmed after finding that the claims, the specification and the prosecution history all supported an interpretation of the term “inventory” as “articles of clothing.”¹⁹

If the patent applicant had expressly defined “inventory” in his specification as “articles of clothing,” then the patentee’s suit, if he had even filed one, could have easily and quickly been resolved on summary judgment. Thus, the patentee clearly would have benefited by expressly defining “inventory” in his specification. Specifically, the patentee would have known, prior to filing his application, exactly what this claim term would be construed to mean. He could have expressly stated a broad definition of “inventory” in his specification prior to filing his application. If the patentee had opted not to broaden his express definition of the term “inventory” at the time of filing the application, then he would have known from the start that he could not prevail against infringers by alleging a broader definition. In either circumstance, the patentee would have saved both the time and the expense incurred in litigating the claim construction issue.

B. *Case Study Two*: Vitronics Corp. v. Conceptoronic, Inc.

In *Vitronics*, the district court entered a judgment as a matter of law, stating that Vitronics had not proven infringement because the disputed claim term “solder reflow temperature,” as used in claim one, referred to 183°C, which, as alleged by Conceptoronic, was the “liquidus temperature of a particular type of solder known as 63/37 (Sn/Pb) solder” (one of three exemplary types of solders in the specification).²⁰ The Federal Circuit reversed after finding that the disputed claim term actually meant “peak reflow temperature” and not “liquidus temperature.”²¹ The Federal Circuit noted that the specification clearly defined “peak reflow temperature” and

¹⁴ Markman v. Westview Instruments, Inc., 52 F.3d 967, 971 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

¹⁵ *Markman*, 52 F.3d at 973.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.* at 981–82, 988–89.

²⁰ Vitronics Corp. v. Conceptoronic, Inc., 90 F.3d 1576, 1580 (Fed. Cir. 1996).

²¹ *Id.* at 1583.

“liquidus temperature” differently.²² Furthermore, in order to be consistent with the specification and the preferred embodiment described therein, the Federal Circuit construed the term to mean “peak reflow temperature.”²³ Had the Federal Circuit’s interpretation been otherwise the preferred—and indeed only—embodiment in the specification would not have fallen within the scope of the patent claim.²⁴

If the patent applicant had expressly defined the term “solder reflow temperature” in his specification as the “peak reflow temperature,” the defendant could not have alleged that the term meant otherwise. The patentee clearly would have benefited from this additional definition since it would have prevented litigation over the meaning of the term. In addition, the defendant would have been aware that the term actually meant “peak reflow temperature.” Thus, the defendant could have more efficiently resolved the matter by practicing the prior art, agreeing to take a license from the patentee, developing a non-infringing method or locating prior art that invalidated the patent claims—all with a confident understanding of the scope and meaning of the patentee’s patent claims.

C. Case Study Three: Texas Digital Systems, Inc. v. Telegenix, Inc.

In *Texas Digital*, the district court held the claimed phrase “repeatedly substantially simultaneously activating” meant “that during some portion of this period (defined as repeatedly), the two separate lights are on at the same time.”²⁵ The Federal Circuit found the district court correctly construed the term “repeatedly” but erred in its construction of the phrase as a whole and ignored the meaning of the term “activating.” Apparently, the patent specification was of little help, so the Federal Circuit considered a “relevant technical dictionary” to determine the meaning of the word “activate.” The Federal Circuit stated the intrinsic evidence was “entirely consistent with the dictionary definition,” but failed to elaborate.²⁶ The Federal Circuit held the meaning of the “phrase requires that during some portion of the period defined as ‘repeatedly,’ the two separate lights are turned on at the same or nearly the same time.”²⁷

If the patentee had expressly defined the term “activating” in the specification, then a dispute over the meaning of this claim term could have been avoided. Similarly, had the patentee expressly defined the other claim terms in the specification, disputes over the meaning of these other claim terms could have been avoided. Moreover, the patentee could have broadened the definition of the claim terms in the specification prior to filing the application. However, even if the patentee had opted not to broaden the express definition of the claim terms prior to filing the application, at least it would have known that it could not prevail against purported infringers by alleging broader definitions.

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, No. 3:98-CV-1537-BF, 2000 WL 1801849, at *5 (N.D. Tex. Dec. 6, 2000).

²⁶ *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1206 (Fed. Cir. 2002).

²⁷ *Id.*

II. REQUIRE APPLICANTS TO IDENTIFY WHICH CLAIM TERMS ARE “MEANS-PLUS-FUNCTION” ELEMENTS AND IDENTIFY THE CORRESPONDING STRUCTURE FOR PERFORMING EACH SPECIFIED FUNCTION

Section 112, ¶ 6 allows patent applicants, if they wish, to express a claim element “as a means or step for performing a specified function, without the recital of structure, material, or acts in support thereof and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”²⁸ There have been a number of cases where the issue revolved around a means-plus-function element. The use of “means for” language creates a rebuttable presumption that the claim term is a means-plus-function element.²⁹ In the absence of such language, no presumption exists.³⁰ Two other issues which are sometimes litigated include determinations of the specified function of the claim, and the corresponding structure, material or acts for performing that specified function.³¹ Litigation surrounding these issues will continue unless they are resolved during patent prosecution, prior to issuance.

If the patent applicant chooses to express a claim element “as a means or step for performing a specified function without recital of structure, material, or acts in support thereof,” it is only fair that the applicant specifically declare during prosecution which claim elements are “means-plus-function” elements. Moreover, the applicant should be required to identify the specified function, as well as the corresponding structure, material or acts for performing that function. With this clear identification, the USPTO can properly examine the claims. Furthermore, only with this clear identification can the above three issues be resolved and uncertainty removed at the proper stage and at the proper time: during prosecution, prior to issuance. The following cases exemplify litigated issues that could have been avoided if patent applicants were required to declare during prosecution which claim terms were “means-plus-function” elements and, as such, identify the specified function and corresponding structure, material or acts for performing that function.

A. *Case Study One*: Greenberg v. Ethicon Endo-Surgery, Inc.

In *Greenberg*, the district court construed the term “detent mechanism” to be a means-plus-function element.³² The district court then granted the defendant’s motion for summary judgment of non-infringement after finding the defendant’s accused structure for performing the function was not structurally equivalent to the detent mechanism disclosed in the patent.³³

The district court gave two principal reasons to support its ruling. First, the court concluded that “detent mechanism” in itself invoked [§112, ¶ 6],

²⁸ 35 U.S.C. § 112, ¶ 6 (2000).

²⁹ *See, e.g.*, Personalized Media Communications LLC v. Int’l Trade Comm’n, 161 F.3d 696, 703 (Fed. Cir. 1998).

³⁰ *See id.*

³¹ Cardiac Pacemakers Inc. v. St. Jude Med., Inc., 296 F.3d 1106, 1113 (Fed. Cir. 2002).

³² Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1582, (Fed. Cir. 1996).

³³ *Id.*

because the term did not describe a particular structure but described any structure that performed a detent function. The court noted that both the dictionary definition of the word “detent” (*i.e.*, “a device for positioning and holding one mechanical part in relation to another”) and the definition of “detent mechanism” provided by [the plaintiff’s] expert (*i.e.*, “[a]ny device for positioning and holding one mechanical part in relation to another so that the device can be released by force applied to one of the parts”) were expressed in functional terms.

In addition, the district court reasoned that although claim 1 of the . . . patent employed the term “detent mechanism,” the summary of the invention twice used “detent means” when referring to the detent that defined the rotation of the shafts at predetermined intervals, and that the two terms should therefore be viewed as synonymous, at least as used in the . . . patent. Thus, the court concluded that the term “detent mechanism” was equivalent to “means for,” and the phrase “defining the conjoint rotation of said shafts in predetermined intervals” stated the function performed by the means.³⁴

The Federal Circuit reversed, holding that the factors upon which the district court relied did not justify treating the claim language as falling within the purview of § 112, ¶ 6.³⁵ The Federal Circuit noted that the fact a particular mechanism—the “detent mechanism”—was defined in functional terms is not sufficient to convert a claim element containing that term into a “means for performing a specified function” within the meaning of section § 112, ¶ 6.³⁶ The Federal Circuit also found various dictionary definitions to clarify that a “detent” is a type of device with a generally understood meaning in the mechanical arts—despite the fact the definition was expressed within the patent in functional terms.³⁷ The Federal Circuit stated while the noun “detent” does not call to mind a single, well-defined structure, the same could be said of other commonplace structural terms, such as “clamp” or “container.”³⁸ The Federal Circuit concluded that a function-focused definition of a “detent” or “detent mechanism” was not as important as the term’s well understood meaning in the art.³⁹

Additionally, the Federal Circuit did

not agree with the district court that the term “detent mechanism” . . . should be treated as synonymous with the term “detent means” simply because the patent use[d] the term “detent means” in place of “detent mechanism” on two occasions in the “summary of the invention” portion of the specification.⁴⁰

³⁴ *Id.* at 1583.

³⁵ *Id.* at 1583–84.

³⁶ *Id.*

³⁷ *Id.* at 1583.

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

The Federal Circuit reasoned simply that “[t]he drafter of the application that matured into the . . . patent appear[ed] to have been enamored of the word ‘means,’ as the word [was] used repeatedly in the summary of the invention.”⁴¹ Indeed, the court found that “[a] close reading of the specification reveal[ed] . . . that the term [was] used in that portion of the patent simply as a shorthand way of referring to each of the key structural elements of the invention.”⁴² Furthermore, the court noted that “each of those elements [was] subsequently described in detail, without the use of the term ‘means,’ in the ‘description of the invention’ portion of the specification, and each [was] subsequently claimed, . . . without the use of the term ‘means,’ in claim 1 of the patent.”⁴³

The Federal Circuit clarified that its decision did not suggest that § 112, ¶ 6 is triggered only if the claim uses the word “means.”⁴⁴ In addition, the Federal Circuit stated its agreement on the matter with the USPTO, which previously had “rejected the argument that only the term ‘means’ will invoke [§ 112, ¶ 6].”⁴⁵

If the patent applicant had been required to identify during prosecution whether any of the claim terms were meant to be “means-plus-function” limitations, it would have been forced to expressly clarify that the answer was “no.” In that instance, the issue would have been resolved prior to the patent’s issuance, rather than on appeal. The patentee would have benefited because an appeal would not have been necessary. In addition, the defendant would have been able to attempt to resolve the dispute on a basis other than an uncertain claim interpretation that ultimately proved to be wrong as a matter of law.

B. Case Study Two: Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.

In *Cardiac Pacemakers*, the district court concluded—four years after suit was filed—that the claims could not be construed “because no structure in the disclosed embodiments perform[ed] the functions as stated in the [sole independent] claim.”⁴⁶ The parties stipulated that under the district court’s claim construction, the claims were invalid.⁴⁷ As such, the district court entered summary judgment that the claims were indefinite for failure to comply with § 112, ¶ 2.⁴⁸ The Federal Circuit affirmed, stating:

Cardiac Pacemakers’ attempts to identify structure corresponding to the function of the “third monitoring means” limitation are in vain. . . . [T]he function identified by the claim language is dual: it requires the same means to monitor the ECG signal and to activate the charging means in the presence of abnormal cardiac rhythm. Because only the physician both

⁴¹ *Id.* at 1583–84.

⁴² *Id.* at 1584.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Cardiac Pacemakers, Inc., v. St. Jude Med., Inc.*, 296 F.3d 1106, 1112 (Fed. Cir. 2002) (second alteration in original).

⁴⁷ *Id.*

⁴⁸ *Id.*

monitors the ECG signal and activates the charging means in the presence of abnormal cardiac rhythm, and Cardiac Pacemakers concedes that the physician cannot be corresponding structure, the specification discloses no structure that corresponds to the claimed function. This renders the claim, and the claims depending from it, invalid for indefiniteness. This is so notwithstanding the presumption of validity, and the issuance of dependent claim 15, in which the “third monitoring means” includes a display. Although it remains true that we will construe claims to preserve validity, if possible where the specification fails to disclose structure corresponding to the claimed function, it is impossible. As in this case, the claims are invalid.⁴⁹

Here, the patent applicant clearly would have benefited from the proposed requirement of identifying whether any of the claim terms were “means-plus-function” limitations at the time the original claims were presented to the USPTO. Specifically, the applicant would have realized that there was no corresponding structure in the original application. As a result, the applicant could have avoided the time and expense of filing the patent application. Alternately, the applicant could have corrected the matter prior to filing. Finally, the applicant would have avoided losing the time and money necessary to conduct both trial litigation and his ultimately unsuccessful appeal of an adverse district court decision.

III. REQUIRE APPLICANTS TO PROVIDE THE MEANING OF THEIR KEY ORIGINAL CLAIM TERMS AT THE TIME THE PATENT APPLICATION IS FILED, & ANY NEW TERMS IN THE INSERTED CLAIMS DURING PROSECUTION

Since the patent applicant can choose which words to use in the claims to particularly point out and distinctly claim the invention, it seems fair to require the applicant to provide the specific meaning of key claim terms at the time the applicant presents each term to the USPTO. The applicant can accomplish this by simply using a dictionary or by being her own lexicographer.⁵⁰

One commentator has proposed the requirement of a “dictionary preference,” selected either by the patent examiner or applicant, in the prosecution history of the patent.⁵¹ Such a preference would provide a default source used to resolve questions about the meaning of claim terms.⁵² Although this proposal is a step in the right direction, it does not account for instances when a single dictionary may have multiple definitions for the same word. Nor does this proposal account for how words in combination should be construed. Further, the reliance on a single dictionary to resolve questions about the meaning of claim terms may not be appropriate in all cases.

⁴⁹ *Id.* at 1114 (citations omitted).

⁵⁰ See *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

⁵¹ See Eric Yeager, *Professor Calls for Dictionary Preference to be put on Prosecution Record*, 67, No. 1665 Pat. Trademark & Copyright J. (BNA) 506 (Apr. 2, 2004) (discussing comments made by Assistant Professor Joseph Scott Miller of Lewis and Clark Law School in a lecture delivered at George Washington University Law School on March 25, 2004).

⁵² *Id.*

A more balanced and fair proposal is to require applicants to define their claim terms either by specifically reciting a dictionary definition of the applicant's own choosing or providing alternative, synonymous language to serve the same function. The definitions chosen by an applicant can and should appear just prior to the claims in the issued patent.

As stated in Section I, strict compliance with 35 U.S.C. § 112, ¶ 2 and 37 C.F.R. § 1.75(d)(1) prior to patent issuance likely would have eliminated the need for a *Markman* hearing in three seminal Federal Circuit cases: *Markman*, *Vitrionics* and *Texas Digital*. To ensure vigilant compliance with both of those provisions, patent applicants should be required to provide the meaning given to key claim terms at the time each claim is presented to the USPTO. In addition, such a requirement should serve as a condition precedent to patent issuance.

IV. CONCLUSION

To reduce the uncertainty as to the scope and meaning of patent claims, and to truly comply with 35 U.S.C. § 112, ¶ 2 and 37 C.F.R. § 1.75(d)(1), the USPTO should be more vigilant in enforcing the requirement that applicants provide a description in their specifications so that the meanings of the terms used in the claims are readily ascertainable. The USPTO can best implement this proposal by adopting appropriate rules requiring applicants to provide the meaning of each key claim term at the time each claim is presented to the USPTO. Moreover, those definitions should appear just prior to the claims in the patent. Applicants can comply with this standard by simply reciting dictionary definitions of the applicants' own choosing or by acting as lexicographers and defining the terms themselves.

To further reduce the uncertainty as to scope and meaning of claim terms in connection with 35 U.S.C. § 112, ¶ 6, patent applicants should be required to declare during patent prosecution which claim elements are "means-plus-function" elements. In addition, applicants should be required to expressly identify the corresponding structure, material or acts for performing the specified function.

To eliminate most, if not all, questions on the scope and meaning of claim terms, applicants should be required during patent prosecution to define their claim terms with alternative, synonymous wording—something that they would likely have to do anyway in a *Markman* hearing.