

THE WRITTEN DESCRIPTION REQUIREMENT[†]

*Robert Greene Sterne, Patrick E. Garrett & Theodore A. Wood**

I. A RETROSPECTIVE REVIEW

The first paragraph of section 112 of the 1952 Patent Act, states:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.¹

It is now well accepted that this provision of the 1952 Patent Act (Patent Act) includes a written description requirement that is separate and distinct from the enablement requirement. Thus, a specification may enable one of ordinary skill to make or use a claimed invention, but still not adequately describe the invention in a way that the public knows that the inventor was in possession of the claimed invention at the time of filing the application. For example, a patent specification that discloses various patterns of eight wooden shingles, does not necessarily provide written description for a claim amendment that recites “at least six shingles,” even though the specification would enable one so inclined to

[†] This paper was originally presented at the Fifth Annual Richard C. Sughrue Symposium on Intellectual Property Law and Policy on March 10, 2003. A database search has not found any significant decisions concerning the written description requirement that have been decided since the original presentation. An electronic version of the paper has been posted on the Sterne, Kessler, Goldstein & Fox, P.L.L.C., web site (www.skgf.com).

^{*} By Robert Greene Sterne, Patrick E. Garrett & Theodore A. Wood. The authors are attorneys with Sterne, Kessler, Goldstein & Fox, P.L.L.C., a Washington, D.C., intellectual property firm. (www.skf.com) The authors express their appreciation for the editorial assistance provided by Ken Bass of their firm. This paper is intended to give an overview of the current state of the law and some discussion of how the authors believe future trends may develop. The paper does not represent the views of the law firm or any of its present or former clients. Copyright © 2003 SKGF. All Rights Reserved.

1. 35 U.S.C. § 112 (2000).

construct a panel of at least six wooden shingles.² However, it was not entirely clear from the language of the Patent Act itself that there was a written description requirement separate and distinct from the enablement requirement. The well-accepted understanding that these are separate and distinct requirements flows from judicial decisions, and not the text of the Patent Act itself.

A separate and distinct written description requirement was first suggested by the Supreme Court in *Evans v. Eaton*,³ which dealt with the Patent Act of 1793. That decision was in turn discussed by the Court of Customs and Patent Appeals (CCPA) in 1977, in *In re Barker*, where the court traced the written description requirement to the Patent Acts of 1790, 1793, and 1836.⁴ According to the CCPA, the Supreme Court had:

interpreted this section of the statute as having two purposes: (1) to make known the manner of constructing the invention in order to enable artisans to make and use it, and (2) to put the public in possession of what the party claims as his own invention in order to ascertain whether he claims anything in common use, or already known, and to protect the public from an inventor “pretending that his invention is more than what it really is, or different from its ostensible objects”⁵

However, as the CCPA noted, the 1793 Act did not require specific separate claims as part of the application.⁶ A separate written description requirement was arguably needed before the 1836 amendment added the separate requirement for separate claims. Now that separate claims are required, an argument can be made that a separate written description requirement is not necessarily embodied in the Patent Act. The CCPA, however, continued to hold that a separate description is required despite the added requirement for separate claims.

In *In re Ruschig*, the CCPA clearly articulated a written description requirement, distinct from the enablement requirement, with respect to the Patent Act.⁷ In that case, the court noted:

While we have no doubt a person . . . would be enabled by the specification to make it, this is beside the point for the question is not

2. *In re Barker*, 559 F.2d 588, 593 (C.C.P.A. 1977).

3. *Evans v. Eaton*, 20 U.S. 356, 434 (1822).

4. *In re Barker*, 559 F.2d at 592-93.

5. *Id.* at 592 n.4 (quoting *Evans*, 20 U.S. at 434).

6. *Id.* The requirement that an application include “claims” was added in the Patent Act of 1836, ch. 357, § 6, 5 Stat. 117 (1836).

7. *In re Ruschig*, 379 F.2d 990 (C.C.P.A. 1967).

whether he would be so enabled but whether the specification discloses the compound to him, specifically, as something appellants actually invented.⁸

In *In re Smith*, the CCPA stated:

[S]atisfaction of the description requirement insures that subject matter presented in the form of a claim subsequent to the filing date of the application was sufficiently disclosed at the time of filing so that the prima facie date of invention can fairly be held to be the filing date of the application.⁹

In 1984, the Federal Circuit adopted the CCPA's distinction between the enablement requirement and the written description requirement.¹⁰ Later decisions of the Federal Circuit reiterated the reasons for continuing to require satisfaction of both the "enablement" and the "written description" requirements.¹¹

The written description requirement that was articulated in *In re Ruschig* arose in the context of a patent in the field of the non-predictable chemical arts.¹² In 1977, the CCPA held that the written description requirement applied to *all* inventions, not just chemical cases and, the majority noted that "contrary to the suggestion in the dissenting opinion, the patent code does not prescribe a different standard between 'complex' and 'simple' cases; nor does this court apply different standards in such cases."¹³

Judge Rich concurred, believing that the specific claim amendment under review was subject to a new matter rejection, but he disagreed with the majority's application of the written description requirement to non-complex cases.¹⁴ Chief Judge Markey dissented, arguing that the emphasis on any enablement/written description distinction was an improper elevation of form over substance.¹⁵ Chief Judge Markey opined that the enablement/written description distinction had been judicially created for "complex" chemical cases, and should not be applied to "simple" mechanical inventions. He stated: "I cannot see how

8. *Id.* at 995.

9. *In re Smith*, 481 F.2d 910, 914 (C.C.P.A. 1973).

10. *In re Wilder*, 736 F.2d 1516, 1520 (Fed. Cir. 1984).

11. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991); *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1329 (Fed. Cir. 2000); *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989, 997 (Fed. Cir. 2000).

12. *In re Ruschig*, 379 F.2d at 1290.

13. *In re Barker*, 559 F.2d at 592 n.4.

14. *Id.* at 594 (Rich, J., concurring).

15. *Id.* at 594-95 (Markey, C.J., dissenting).

one may, in ‘full, clear, concise and exact terms,’ enable the skilled to practice an invention, and still have failed to ‘describe’ it.”¹⁶

The written description requirement is distinct from the statutory new matter prohibition.¹⁷ New matter rejections are more appropriate for changes to the specification.¹⁸ Thus, an amended claim can be rejected for failing to have an adequate written description but not as new matter.

The language in a claim does not have to be identical to language in the specification.¹⁹ The written description requirement²⁰ is satisfied when the specification clearly conveys to those skilled in the art, to whom it is addressed, that the applicant has invented the specific subject matter later claimed.²¹ A written description analysis is focused on the specification. For example, in *In re Hayes Microcomputer Products*, the court stated that “[t]he test for sufficiency of support in a parent application is whether the disclosure of the application relied upon reasonably conveys to the artisan that the inventor had possession at the time of the later claimed subject matter.”²²

In 1985, the Federal Circuit held that satisfaction of the written description requirement was considered a question of fact.²³ That issue has not been revisited after the 1996 landmark decision in *Markman v. Westview Instruments, Inc.*, which held that claims construction issues were to be decided by the court and not the jury.²⁴

The written description requirement can be an issue in at least four situations: amended claims in an original application,²⁵ claims in a continuation-in-part seeking the earlier filing date of a parent application,²⁶ claims copied for an interference,²⁷ and in reissue

16. *Id.* at 595 (Markey, C.J., dissenting).

17. 35 U.S.C. § 132(a) (2000).

18. *In re Rasmussen*, 650 F.2d 1212, 1214-15 (C.C.P.A. 1981).

19. *Kennecott Corp. v. Kyocera International, Inc.*, 835 F.2d 1419, 1422 (Fed. Cir. 1987); *In re Wertheim*, 541 F.2d 257, 262 (C.C.P.A. 1976), *appeal after remand*, 646 F.2d 527 (C.C.P.A. 1981); *In re Lukach*, 442 F.2d 967, 969 (C.C.P.A. 1971).

20. The written description requirement can be satisfied by text or by a drawing. *E.g.*, *Vas-Cath, Inc. v. Makurkar*, 935 F.2d 1555, 1564 (C.A.F.C. 1991) (“[D]rawings alone may be sufficient to provide the ‘written description of the invention’”).

21. *In re Wertheim*, 541 F.2d 257, 262 (C.C.P.A. 1976).

22. *In re Hayes Microcomputer Products*, 982 F.2d 1527, 1533 (Fed. Cir. 1992) (quoting *Vas-Cath*, 935 F.2d at 1563) (internal quotations omitted).

23. *Ralston Purina Co. v. Far-Mar Co.*, 772 F.2d 1570, 1575, (Fed. Cir. 1985), *followed in In re Hayes Microcomputer Products*, 982 F.2d at 1533.

24. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384-90 (1996).

25. Original claims (i.e., claims filed with the patent application) generally provide their own written description. *E.g. In re Wilder*, 736 F.2d 1516 (Fed. Cir. 1984).

26. *E.g.*, *Chen v. Bouchard*, 347 F.3d 1299 (Fed. Cir. 2003).

situations.²⁸ Written description issues can arise when a claim is narrowed²⁹ or broadened.³⁰ When a claim is narrowed, the issue is generally whether the added feature or limitation is described in the specification. Claim broadening is a more difficult situation. Broadening of claims is typically performed by omitting a previously recited element from a claim. Since the remaining elements in the claim are typically described in the specification, the issue tends to focus on the combination of remaining elements, and whether the specification suggests that the inventor contemplated the invention, in terms of the broadened claim, at the time of filing.

For example, in *In re Gentry Gallery*, the patent³¹ described a unit of a sectional sofa in which two independent reclining seats face the same direction. According to the patent, a console between the two recliners “accommodates the controls for both of the reclining seats.”³² The specification and claims in the original application specified the location for the controls as being on the console. During prosecution, the applicant broadened the claims by eliminating any recitation of a particular location for the controls. The court invalidated the broadened claims, holding that the “disclosure unambiguously limited the location of the controls to the console.”³³

Gentry Gallery generated concern among practitioners that the Federal Circuit was raising the bar on the written description requirement for non-complex cases in the predictable arts by prohibiting patentees from claiming embodiments that are any broader than the preferred embodiments specifically disclosed in the specification.³⁴ More specifically, *Gentry Gallery* also raised concern that the court had adopted an “omitted essential elements test” as part of the written description analysis that would be applied to claims that had been

27. *E.g.*, *In re Smith*, 481 F.2d 910 (C.C.P.A. 1973); *Fields v. Conover*, 443 F.2d 1386 (C.C.P.A. 1971).

28. *E.g.*, *In re Wilder*, 736 F.2d 1516 (Fed. Cir. 1984).

29. *E.g.*, *In re Kaslow*, 707 F.2d 1366 (Fed. Cir. 1983); *Ex parte Grasselli*, 231 U.S.P.Q. (BNA) 393 (P.T.O. Bd. App. 1983), *aff'd*, 738 F.2d 453 (Fed. Cir. 1984); *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320 (Fed. Cir. 2000); *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993); *In re Spina*, 975 F.2d 854 (Fed. Cir. 1992); *Martin v. Mayer*, 823 F.2d 500 (Fed. Cir. 1987).

30. *E.g.*, *In re Gentry Gallery, Inc. v. Berklinc Corp.*, 134 F.3d 1473 (Fed. Cir. 1998); *U.S. Industrial Chemicals, Inc. v. Carbide & Carbon Chemicals Corp.*, 315 U.S. 668 (1942).

31. U.S. Patent No. 5,064,244 (issued Nov. 12, 1991).

32. *Id.* at col. 1, lines 36-37.

33. *In re Gentry Gallery*, 134 F.3d at 1480.

34. Laurence H. Pretty, *The Recline and Fall of Mechanical Genus Claim Scope Under “Written Description” in the Sofa Case*, 80 J. PAT. & TRADEMARK OFF. SOC’Y 469 (1998).

broadened during prosecution or written more narrowly than the specification. Under such a test, the specification would be examined to determine whether any elements were essential to the invention, and therefore could not be omitted from a claim. If any such elements were omitted from a claim, the claim would be invalid as lacking adequate written description. Support for this omitted essential elements test arose, at least in part, from the court's statement in *Gentry Gallery* that: "[I]t is clear that [the inventor] considered the location of the recliner controls on the console to be an *essential element* of his invention. Accordingly, his original disclosure serves to limit the permissible breadth of his later-drafted claim."³⁵

Subsequently in *Reiffin v. Microsoft Corp.*, the majority decision declined an opportunity to address the existence of an omitted essential elements test, on which the District Court for the Northern District of California had based its summary judgement, and reversed on other grounds.³⁶ In her concurring opinion, Judge Newman stated the district court's "controversial and incorrect decision" based upon the omitted elements doctrine should be addressed and not ignored.³⁷

Court decisions after *Gentry Gallery* have been mixed,³⁸ with some providing the patentee at least some leeway to broaden claims beyond the disclosed preferred embodiments. More recent cases appear to have completely dispelled the notion of any omitted essential elements test.³⁹ For example, the District Court for the Northern District of California has since retracted the omitted elements test that it first enunciated in *Reiffin*.⁴⁰ More importantly, the Federal Circuit has implicitly disclaimed it.

In [*Gentry Gallery*] we did not announce a new "essential element" test mandating an inquiry into what an inventor considers to be essential to his invention and requiring that the claims incorporate those elements. Use of particular language explaining a decision does

35. *In re Gentry Gallery*, 134 F.3d at 1479 (emphasis added).

36. *Reiffin v. Microsoft Corp.*, 214 F.3d 1342 (Fed. Cir. 2000).

37. *Id.* at 1347-48 (Newman, J., concurring).

38. *See, e.g.*, *Tronzo v. Biomet, Inc.*, 156 F.3d 1154 (Fed. Cir. 1998); *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, 175 F.3d 985 (Fed. Cir. 1999); *Karlin Tech., Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968 (Fed. Cir. 1999); *Elkay Mfg. Co., v. Ebco Mfg. Co.*, 192 F.3d 973 (Fed. Cir. 1999).

39. Lawrence R. La Porte, et al., *The Rise and Fall of the "Omitted Elements Test"*, in 721 PRACTISING LAW INST., PATENTS, COPYRIGHTS, TRADEMARKS, AND LITERARY PROPERTY COURSE HANDBOOK SERIES, PATENT LITIGATION 877, 895-98 (2002), available at WL 721 PLI/Pat 875.

40. *Reiffin v. Microsoft, Inc.*, 59 U.S.P.Q.2d 1421, 1426 (N.D. Cal. 2001); *Sun Microsystems, Inc. v. Kingston Technology Co.*, 57 U.S.P.Q.2d 1822 (N.D. Cal. 2000).

not necessarily create a new legal test. Rather, in [*Gentry Gallery*], we applied and merely expounded upon the unremarkable proposition that a broad claim is invalid when the entirety of the specification clearly indicates that the invention is of a much narrower scope.⁴¹

However, it is important to remember that the separate and distinct written description requirement adopted by the courts as an embellishment on the first paragraph of § 112 is alive and well, and applies to all utility patent applications regardless of technology, whether claims have been narrowed or broadened.

II. A PROSPECTIVE VIEW

The written description requirement should be carefully considered during patent drafting and prosecution and as part of a validity analysis of issued patents. Application of the principle requires different considerations depending on the context.

For example, conventional patent applications often combine multiple features of an invention in a particular drawing figure. The corresponding description of those features may not expressly note which of those features are optional, variable, or can be implemented alone and/or in various combinations with one another. Some applications may even use limiting terms such as “must,” “always,” “never,” and the like. The oft-used term “preferred” may also be limiting when used in certain contexts.

Later, during prosecution of the application, a proposed claim amendment may not be adequately supported by the written description. For example, in *Barker*, the specification did not clearly convey that patterns of fewer than eight shingles were contemplated.⁴² Similarly, in *In re Gentry Gallery*, the specification did not clearly convey that the controls could be placed other than on the console. The patent drafter should thus strive to draft applications with the requisite foresight so that subsequent claim amendments are fully supported.

In many cases, reasonable people may differ on the adequacy of the written description of the patent. Thus, a patent examiner may allow a claim that is later ruled invalid by a court. Attorneys who are charged with investigating and/or litigating the validity of a patent would be well advised to consider the adequacy of the written description of each of the claims at issue.

41. *Cooper Cameron Corp. v. Kvaerner Oilfield Products, Inc.*, 291 F.3d 1317, 1323 (Fed. Cir. 2002).

42. *In re Barker*, 559 F.2d 588, 593 (C.C.P.A. 1977).

A. Patent Drafting

When drafting a patent application, the drafter should illustrate and describe the invention using a characterization from the broadest possible scope to the greatest detail or specificity possible. This guidance sounds simple enough, but it actually requires more effort and foresight than might be expected.

Some commentators have suggested filing patent applications with the broadest conceivable claims in order to ensure adequate written description for the broadest potential scope of the invention.⁴³ However, this will not necessarily provide the requisite description requirement support for any narrowing amendments that add additional features or limitations to the claims. Moreover, under *Festo*, subsequent narrowing amendments and cancellation of claims could give rise to prosecution history estoppel that precludes reliance in subsequent litigation on the doctrine of equivalents, at least as to added or amended features of the claims.⁴⁴ Potential estoppels could be minimized by filing dependent claims that capture as many optional and/or variable features as possible. But this extensive claim drafting strategy can give rise to complicated restrictions and unnecessary prosecution costs. Moreover, canceled broad claims could still potentially give rise to estoppels that may not be clear until a patent is actually litigated.

An alternative approach is to describe and illustrate the invention from the broadest possible scope to the narrowest detail and specificity. A relatively focused claim set having reasonable scope and a reasonable number of dependent claims can be filed with the original application with the goal of avoiding significant narrowing amendments. After the prior art becomes clearer during prosecution, claims can be broadened and/or continuation applications can be filed with additional claim sets, tailored to avoid the prior art.

For example, the specification can use a characterization approach that begins with an introductory section that includes a very high level illustration of the broadest conceivable form of the invention, and a correspondingly high level textual description of the invention. The introductory textual section of the specification should be broader than, and possibly even somewhat overlap, the prior art. For electrical or mechanical inventions, the use of a box could suffice for the high level graphical illustration of the invention. For chemical or biotech

43. Cynthia M. Lambert, *Gentry Gallery and the Written Description Requirement*, 7 B.U.J. SCI. & TECH. L. 109, 138 (2001); Pretty, *supra* note 34, at 480.

44. *Festo Corp. v. Shoketsu Kinzoku Kabushiki Co.*, 535 U.S. 722, 734 (2002).

inventions, a circle representing a genus of compounds or biological matter may suffice for the high level graphical illustration.

For electrical or mechanical inventions, subsequent sections of the specification can describe individual, optional features of the invention. Each optional feature should itself be introduced in the specification at the highest possible characterization level. An example of this is the use of a simple block diagram drawing and a correspondingly high level textual description. Feature details can be illustrated in subsequent drawing figures with corresponding textual descriptions. Optional features should be identified as such. Each optional feature should be delineated using various combinations of sub-features if applicable. Where technically accurate, preferred values and settings should be introduced as ranges, and ranges should be introduced as optional ranges. Specific values alone are not enough to support ranges in many situations. When technically accurate, optional features should be described as implementable alone and/or in various combinations with one another. In other words, instead of lumping multiple features of the invention in a single drawing figure and describing each of the features as illustrated, the drafter should envision as many characterizations of levels of the invention as practicable. At each such level of characterization, as many variations as possible should be described. The drafter should then describe and illustrate these levels and variations at corresponding levels of detail, alone and in various combinations. Although this drafting strategy will typically require a much more thorough interview of the inventor, and a more intense patent drafting effort, it will produce a patent application with much greater depth and breadth to the disclosure. This greater depth and breadth will help to ensure a more adequate written description for claim amendments made during prosecution.

Of course, not all patent applicants will have the financial resources or economic incentives to have a patent application drafted in such a level of detail and comprehension. As always, proper client counseling will be required to allow the patent applicant to make an informed decision as to the desired scope and detail of the application.

A shorter version of the drafting procedure described above is available, wherein a simple statement notes that various features described in the specification can be practiced alone or in various combinations with one another. Those tempted to pursue this cursory approach, however, are cautioned. If the inventor fails to adequately disclose how to make each of the various combinations work, her claims

may still be at risk of invalidity under the enablement requirement.⁴⁵

B. Patent Prosecution

During prosecution, when amending or adding new claims to recite new features (e.g., narrowing features), the practitioner should verify that each new feature is recited in the specification and/or illustrated in the drawings. Any new feature that is not described in the originally filed specification may impermissibly narrow the claim because there is not adequate written description support. When in doubt, the practitioner should consider filing a continuation in part application adding such needed support, at least in cases where the original filing date is not needed to overcome intervening prior art.

When amending a claim to omit a feature, or when adding a claim that omits a feature that was previously recited in a pending claim of otherwise similar scope, the practitioner should verify that the specification describes the invention in terms of this broadened scope of the claim. It is not necessarily fatal, however, if the specification does not describe the invention in terms of the broadened scope of the claim, so long as the specification does not clearly limit the invention to a more narrow scope. Again, when in doubt, the practitioner should consider filing a continuation in part application containing an express description of the omitted feature and permissible combination, at least in cases where the original filing date is not needed to overcome intervening prior art.

C. Patent Evaluation (Validity Investigation/Litigation)

Patents can be evaluated for a variety of reasons, including, for example, litigation purposes, due diligence review for potential investment, freedom to operate analysis, or design around analysis. Where the validity of a patent is being investigated, a written description analysis should be carefully considered. The following discussion highlights issues that can be investigated as part of a written description analysis.

A written description analysis should include a review of the prosecution history to identify claims that were amended and/or added during prosecution, which should be investigated for adequate written description in the originally filed application.

Whenever a continuation-in-part application (CIP) is in the family

45. Lambert, *supra* note 43, at 138.

chain of a patent, and the claims in the patent need to rely on a filing date that precedes the CIP filing date, the specification(s) preceding the CIP should be reviewed for adequate written description of claims that issued from the CIP, or from a continuation of the CIP. In other words, in addition to reviewing amended claims and new claims, originally filed claims that issued from the CIP or from the continuation thereof should also be investigated. If adequate written description does not exist in the parent application(s) of the CIP, these claims will not be entitled to the earlier filing date of the parent application.

III. CONCLUSION

It is clear that the written description requirement applies to all technologies covered by patent applications and is not limited to the unpredictable or "complex" arts. The impact of this principle is that the cost and difficulty of drafting patent applications in any art has risen significantly in recent years to adequately protect all variations and permutations of the invention. Moreover, this heightened scrutiny appears to apply retroactively to all unexpired patents, even those obtained when the applicable rules appear not to be as strict. The public policy rationale for this heightened scrutiny of a patent appears to be rooted in making sure that the inventor was in possession of the claimed invention at the time of filing. An additional public policy consideration seems to be that the patent must put the public on notice of what the inventor invented. All of this adds up to a greater burden and expense on the patent applicant wanting to obtain patent protection on all aspects of an invention.