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DEPENDENT PATENT CLAIMS AND PROSECUTION HISTORY ESTOPPEL: WEAKENING THE DOCTRINE OF EQUIVALENTS

I. INTRODUCTION

The United States Supreme Court and the Federal Circuit continue to debate the extent to which the doctrine of equivalents should be utilized in patent litigation, especially with regard to the ongoing *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.* case.¹ The doctrine of equivalents protects patent claims that are not literally infringed, but infringed by another's invention whose differences with the claim in question are trivial.² In light of the decisions in the *Festo* case, the Federal Circuit continues to extend the reach of prosecution history estoppel, which bars a determination of equivalence and prohibits a patent owner from claiming that subject matter relinquished during prosecution of the patent is entitled to coverage.³ The Federal Circuit's recent rulings in *Honeywell International Inc. v. Hamilton Sundstrand Corp.*⁴ and *Deering Precision Instruments, L.L.C. v. Vector Distribution Systems, Inc.*⁵ expanded the bounds of prosecution history estoppel to include the situation in which the patent applicant amends a previously dependent claim into an independent claim.⁶ Although there are positive ramifications associated with these cases, the Federal Circuit has succeeded in further withering the doctrine of equivalents and the protections that it provides patentees.

This Comment begins with a background on patents and the various doctrines involved, discusses the leading cases and the Federal Circuit's decisions, and concludes with an analysis of the rationales and ramifications of the court's decisions—both positive and negative.

1. 344 F.3d 1359 (Fed. Cir. 2003), *cert. denied*, 541 U.S. 988 (2004); 535 U.S. 722 (2002); 172 F.3d 1361 (Fed. Cir. 1999); 72 F.3d 857 (Fed. Cir. 1995); No. CIV.A.88-1814-MA, 1993 WL 1510657 (D. Mass. 1993).

2. Matthew J. Conigliaro et al., *Foreseeability in Patent Law*, 16 BERKELEY TECH. L.J. 1045, 1047 (2001).

3. *Pharmacia & Upjohn Co. v. Mylan Pharm., Inc.*, 170 F.3d 1373, 1376 (Fed. Cir. 1999).

4. 370 F.3d 1131 (Fed. Cir. 2004).

5. 347 F.3d 1314 (Fed. Cir. 2003), *cert. denied*, 540 U.S. 1184 (2004).

6. *Honeywell*, 370 F.3d at 1141; *Deering*, 347 F.3d at 1326.

II. BACKGROUND

A. *The Patenting Process*

The United States government has the authority to grant patents pursuant to Article I of the Constitution because patent laws “promote the Progress of Science and useful Arts” by rewarding innovation.⁷ The government grants to a patentee the exclusive rights to an invention for a set period of time, after which the invention is free to be used by the public.⁸ In essence, a patent confers upon the patentee a limited monopoly in exchange for publicly disclosing the invention.⁹

The federal government’s authority to grant patents rests with the United States Patent and Trademark Office (USPTO).¹⁰ Within the USPTO, patent examiners review each application to determine whether various substantive and procedural requirements for patentability are met.¹¹ The examiners conduct a prior art search to determine if the pending claims are within the patentable subject matter,¹² novel,¹³ useful,¹⁴ and nonobvious with regard to what is known in the art.¹⁵ The examiner determines the scope of the patent by literally interpreting the claims in light of the prior art, and also by considering

7. U.S. CONST. art. I, § 8, cl. 8.

8. 35 U.S.C. § 154(a)(1)–(2) (2000).

Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.

Id. § 154(a)(1).

9. *See id.* § 154(a)–(b).

10. *See id.* § 1(a).

11. *See id.* §§ 111, 112 (describing the requirements for the patent application and specifications, respectively, regarding the form of the applications).

12. *See id.* § 101.

13. *See* 35 U.S.C. § 102. A rejection for anticipation requires that each limitation of the claimed invention be disclosed in a single prior art reference; in addition, the reference must be enabling and sufficiently describe the claimed invention such that the inventor has placed the invention in possession of a person of ordinary skill in the art. *In re Paulsen*, 30 F.3d 1475, 1478–79 (Fed. Cir. 1994).

14. *See* 35 U.S.C. § 101.

15. *See id.* § 103. Inventors, patent agents, patent attorneys, and others involved in the preparation or prosecution of applications also have a duty of candor and good faith in dealing with the USPTO, requiring the patentee to disclose all relevant prior art to the USPTO. 37 C.F.R. § 1.56 (2005). Although the patentee has a duty to disclose all known relevant prior art, this duty does not require (but only encourages) the patentee to actually conduct a prior art search before filing the application. *Id.*

the specification, expert testimony, and any statements made by the applicant during the patenting process.¹⁶

Once the patent examiner is satisfied with the sufficiency of the application in light of the prior art and the claims, the USPTO decides whether to issue the patent based on the application.¹⁷ However, if the examiner is not convinced of the novelty or nonobviousness of the application, the USPTO may reject the patent application and send an “office action” to the prospective patentee describing the reasons for the rejection.¹⁸ Upon rejection, the patentee is given the choice of amending the application to narrow the scope of the patent to fit within the prior art and gain patentability, or to appeal the rejection and argue with the patent examiner regarding the prior art and the reasons for rejection.¹⁹

B. How Patents Are Drafted

A patent application contains a written description of the invention along with a number of “claims” defining the scope of the invention.²⁰ Patents are interpreted pursuant to the invention described within the claims, and these claims may be either independent or dependent. When an applicant states a claim in “dependent form,” the claim incorporates by reference a previous independent or dependent claim and adds some additional limitation.²¹ A dependent claim “is narrower in scope than the claim upon which it is dependent”²² and can also be used to remedy indefinite claim language.²³

16. See 5A DONALD S. CHISUM, *CHISUM ON PATENTS* § 18.01 (2005). These statements between the prospective patentee and the USPTO become part of the “prosecution history.” See *id.*

17. 35 U.S.C. § 131; 37 C.F.R. § 1.104.

18. DONALD S. CHISUM & MICHAEL A. JACOBS, *WORLD INTELLECTUAL PROPERTY GUIDEBOOK: UNITED STATES* 2-106 (1992).

19. 37 C.F.R. § 1.111. A rejection in a second office action is a “final rejection.” CHISUM & JACOBS, *supra* note 18, at 2-107 n.21. After a “final rejection,” the patent applicant may also appeal the rejection to the Board of Patent Appeals and Interferences, and then to the U.S. District Court or to the Federal Circuit if the Board of Patent Appeals and Interferences upholds the rejection. See 35 U.S.C. § 134 (detailing appeals to the Board of Patent Appeals and Interferences); *id.* § 145 (appeals to the U.S. District Court); *id.* § 141 (appeals to the Federal Circuit).

20. 35 U.S.C. § 112. The purpose of the written description requirement is to show that the inventor was actually in possession of the claimed invention at the time the application was filed. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991).

21. 35 U.S.C. § 112 (“[A] claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.”).

22. ROBERT C. FABER, *LANDIS ON MECHANICS OF PATENT CLAIM DRAFTING* § 2:9, at 2-23–24 (5th ed., release no. 2, 2005).

23. See JEFFREY G. SHELDON, *HOW TO WRITE A PATENT APPLICATION* § 6.5.7.1, at 6-70 (release no. 4, 1996) (“For example, if a claim recites an element that is ‘sufficiently long,’ a dependent claim can specify that the element is ‘at least five inches long.’”).

Patent applications typically involve multiple claims, beginning with broad independent claims followed by narrower dependent claims.²⁴ One benefit of incorporating dependent claims into the application is that, in general, “[o]ne who does not infringe an independent claim cannot infringe a claim dependent on . . . that claim.”²⁵ As such, practitioners employ dependent claims as a means of stretching the protection of the claimed invention by drafting an independent claim that is broad—but not broad enough that it is anticipated or obvious in view of prior art—and then adding dependent claims so that the invention will be interpreted to provide wide protection for infringement purposes.

The claims drafted by the applicant relay to the patent examiner, as well as the public, what the inventor regards as his invention, as well as what is intended to be protected and left unprotected by the patent.²⁶ As a result, the claims, as well as the application as a whole, serve a notice function as to what the inventor believes the invention entails.²⁷

One of the advantages associated with a patent is the deference given by the courts to the judgment of the examiner: “A patent shall be presumed valid.”²⁸ The Patent Act provides that “[e]ach claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim.”²⁹ Dependent claims can survive in spite of the invalid parent claim because dependent claims do not depend on the parent claim for their validity, but merely for some of their language.³⁰ Thus, the use of narrower dependent claims protects the patent against the possibility that the independent claims will be determined to be invalid.³¹

24. See 35 U.S.C. § 112 (allowing multiple dependent claims).

25. *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989); see *Ex parte Ligh*, 159 U.S.P.Q. (BNA) 61 (Patent Office Bd. of App. 1967) (holding it erroneous to reject a dependent claim yet allow the parent claim).

26. See FABER, *supra* note 22, § 1:1, at 1-2.

27. “[P]ublic notice is an important objective of patent prosecution” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (citing *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 24 (1997)); see FABER, *supra* note 22, § 1:2, at 1-3 (comparing claim drafting and the bounds of the invention to the bounds of real estate).

28. 35 U.S.C. § 282.

29. *Id.* “If the independent claim reads on prior art, but the dependent claim doesn’t, then the dependent claim survives and is treated as if it were written in full independent form.” LEE A. HOLLAAR, LEGAL PROTECTION OF DIGITAL INFORMATION, ch. 4 § IV.B.4 (2002), available at <http://digital-law-online.info/lpdi1.0/treatise58.html>. An invention “reads” on a claim when “all limitations of the claim are found in the reference, or ‘fully met’ by it.” *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

30. HOLLAAR, *supra* note 29, ch. 4 § VII.B.

31. 35 U.S.C. § 282.

A claim is properly dependent if it includes every limitation of the claim to which it refers,³² and as such, a dependent claim shall not conceivably be infringed by anything which would not also infringe the basic claim.³³ Accordingly, when any claim is allowed as valid by the examiner, all dependent claims will then be allowed without further examination for novelty or obviousness; the examiner only needs to ensure that the dependent claims are in proper form.³⁴

Recently, the Federal Circuit has attacked the vitality and usefulness of dependent claims. The Federal Circuit originally stated: “It is axiomatic that dependent claims cannot be found infringed unless the claims from which they depend have been found to have been infringed.”³⁵ However, in *Wilson Sporting Goods Co. v. David Geoffrey & Associates*,³⁶ the Federal Circuit backtracked from its previous statement, declaring that “[w]hile this proposition is no doubt generally correct, it does not apply in the circumstances of this case.”³⁷ The *Wilson* court stated that non-infringement of an independent claim does not mean that all reliant dependent claims will not be infringed.³⁸ In light of the *Wilson* case and other cases limiting the use of

32. *Id.* § 112 (“A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.”).

33. See U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 608.01(n) (8th ed., rev. 2004) [hereinafter MPEP].

34. HOLLAR, *supra* note 29, ch. 4 § IV.B.4.

35. *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989).

36. 904 F.2d 677 (Fed. Cir. 1990).

37. *Id.* at 685.

38. *Id.* at 685–86. In *Wilson*, the examiner issued Wilson’s patent without comment for one independent claim and twenty-six dependent claims. *Id.* at 680. Wilson’s patent dealt with the configuration of dimples on a golf ball cover. *Id.* at 679. Following a finding of willful infringement, Dunlop appealed, arguing that if its product was an equivalent of the Wilson claim, then the prior art would also be deemed an equivalent. *Id.* at 678, 683. The Federal Circuit reversed the trial court’s judgment of infringement of the independent claim because the asserted range of the equivalents of the claim limitations would encompass the prior art golf ball. *Id.* at 686. Accordingly, because the dependent claims were by definition narrower in scope than independent claims, “it does not automatically follow that the ranges of equivalents of these narrower claims would encompass the prior art, because of their added limitations.” *Id.* When the reason for non-infringement of the independent claim is that the accused product did not contain the claim limitation or its equivalent, the dependent claim will not be infringed; however, the court held that this was not the situation in *Wilson*. *Id.* The burden was placed on Wilson to prove that the range of equivalents sought for infringement purposes would not also cover the prior art claims. *Id.* at 685. To answer this question, the court used a hypothetical patent claim that literally covered the accused product, and asked whether the hypothetical claim would have been allowed by the patent office in view of the prior art. *Id.* at 684. The court concluded that none of the dependent claims could be given a range of equivalents that would lead Dunlop’s balls to be infringing because “that would extend Wilson’s patent protection beyond hypothetical claims it could lawfully have obtained from the [Patent and Trademark Office].” *Id.* at 686. Wilson failed to convince the court that the range of equivalents sought was broad enough to

dependent patent claims, the Federal Circuit in *Honeywell* and *Deering* was set to cripple patent prosecution tradition.

C. *Literal Infringement of Patent Claims*

“An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. . . . The second step is comparing the properly construed claims to the device accused of infringing.”³⁹ A patent claim is infringed when it “reads” on the allegedly infringing article or process, meaning that “all limitations of the claim are found in the reference, or ‘fully met’ by it.”⁴⁰ Each element of the claim must be present within the alleged infringing invention.⁴¹ However, it is not necessary to infringe all claims of a patent; it is only necessary to infringe upon one claim for the patent to be infringed. As a result, the more elements that are present within a claim, the less subject matter is protected by the claim, as it will be more difficult for a potentially infringing device to contain all of the listed elements.⁴²

Infringement occurs when one of the rights to exclude is violated, including the sale or offer for sale of a patented invention.⁴³ Liability for infringement has also been extended beyond direct infringement to include those who actively induce infringement of a patent,⁴⁴ or those who contribute to the infringement of the patent.⁴⁵ Ultimately, however, if there is any

encompass Dunlop’s balls without also encompassing the balls cited in the prior art. *Id.* For an examination of the *Wilson* case and its effect on the doctrine of equivalents, see Jean M. Barkley, *The Doctrine of Equivalents Analysis After Wilson Sporting Goods*, 35 ARIZ. L. REV. 765 (1993).

39. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996) (citation omitted). Literal infringement will be found when the defendant’s device is covered within the literal meaning of the claims as interpreted by the court after “claim construction.” *See id.* at 970–71.

40. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

41. *See Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950).

42. *See Jamesbury Corp. v. Litton Indus. Prods., Inc.*, 586 F.2d 917, 924 (2d Cir. 1978).

43. 35 U.S.C. § 271(a) (2000) (“Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.”).

44. *Id.* § 271(b).

45. *Id.* § 271(c).

Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

element that does not have a corresponding aspect in the alleged-infringing device or method, then the claim with that element is not literally infringed.

As an example, consider a hypothetical patent claim for a chair, which, as one element, requires “legs of between 20 and 25 inches in length.” Under normal circumstances, a chair with legs between 20 and 25 inches in length will literally infringe upon the claim (assuming the other elements are also present in the potentially infringing invention), while a chair with legs less than 20 inches or greater than 25 inches in length will not literally infringe.

D. Doctrine of Equivalents—Non-literal Infringement

Even if a claim is not literally infringed, a patent owner can still be protected by asserting the doctrine of equivalents, which “allows the patentee to claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes.”⁴⁶ This doctrine was utilized “[t]o temper unsparing logic and prevent an infringer from stealing the benefit of the invention.”⁴⁷ It attempts to strike a balance between ensuring that the patentee enjoys the full benefit of his patent and ensuring that the claims give “fair notice” of the patent’s scope.⁴⁸

The Supreme Court has both bolstered and hindered the use of the doctrine of equivalents. *Winans v. Denmead*⁴⁹ was the first decision to use the doctrine to do serious damage to the literal meaning of a claim’s language.⁵⁰ The Supreme Court in *Burns v. Meyer*,⁵¹ however, warned about the use of the doctrine of equivalents, stating that “[t]he courts . . . should be careful not to enlarge, by construction, the claim which the Patent Office has admitted, and which the patentee has acquiesced in, beyond the fair interpretation of its terms.”⁵² Despite this warning, the Supreme Court affirmed the role of the doctrine of equivalents in *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*⁵³ In *Graver Tank*, the Supreme Court supported the rationale

Id. As one court has explained, “[W]ithout direct infringement there can not be contributory infringement or inducement of infringement.” *BP Chems. Ltd. v. Union Carbide Corp.*, 4 F.3d 975, 981 (Fed. Cir. 1993).

46. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki, Co.*, 535 U.S. 722, 733 (2002).

47. *Royal Typewriter Co. v. Remington Rand, Inc.*, 168 F.2d 691, 692 (2d Cir. 1948).

48. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991); *see also* *Litton Sys., Inc. v. Honeywell, Inc.*, 145 F.3d 1472, 1474 (Fed. Cir. 1998) (stating the importance of public notice); *Markman v. Westview Instruments, Inc.*, 517 U.S. 368, 390 (1996) (discussing the need for balance between the rights of protection and notice).

49. 56 U.S. (15 How.) 330 (1853).

50. *Id.* at 340–41.

51. 100 U.S. 671 (1879).

52. *Id.* at 672.

53. 339 U.S. 605 (1950). Justice Jackson, writing for the majority, noted that without the doctrine of equivalents, an “unscrupulous copyist” would be encouraged to make insignificant

behind the doctrine of equivalents, stating that “to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing.”⁵⁴ Limiting infringement protection to literal infringement “would deprive [the patentee] of the benefit of his invention and would foster concealment rather than disclosure of inventions, which is one of the primary purposes of the patent system.”⁵⁵ In 1997, the Supreme Court reaffirmed the vitality of the doctrine of equivalents in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*⁵⁶

An accused product may infringe under the doctrine of equivalents “if it performs substantially the same function in substantially the same way to obtain the same result.”⁵⁷ The “essential inquiry” for the use of the doctrine is: “Does the accused product or process contain elements identical or equivalent to each claimed element of the patented invention?”⁵⁸ This inquiry is not limited to equivalents known at the time the patent issues, nor is it limited to the time of disclosure; equivalency is measured “at the time of infringement.”⁵⁹ However, it is essential that the doctrine of equivalents be applied to the individual elements within the claim, and not to the invention as a whole, because each element is “material to defining the scope of the patented invention.”⁶⁰

Using the previous chair claim example, which recites as one element “legs of between 20 and 25 inches in length,” consider a chair that meets the other elements of the claim but has legs of 25.1 inches in length. The claim could still be found to infringe under the doctrine of equivalents if a jury were to determine that legs of 25.1 inches were equivalent to legs of 25 inches in length.⁶¹ The doctrine of equivalents prevents an accused infringer from

changes to an invention in order to take the copied invention outside of the scope of the claims, leaving the patentee with no legal recourse against the infringer. *Id.* at 607.

54. *Id.*

55. *Id.* Justice Jackson also noted that the doctrine of equivalents is needed because “[o]utright and forthright duplication is a dull and very rare type of infringement.” *Id.*

56. 520 U.S. 17, 17 (1997).

57. *Graver*, 339 U.S. at 608 (quoting *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 42 (1929)). There is also a reverse doctrine of equivalents, which provides that

where a device is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way, but nevertheless falls within the literal words of the claim, the doctrine of equivalents may be used to restrict the claim and defeat the patentee’s action for infringement.

Id. at 608–09.

58. *Warner-Jenkinson*, 520 U.S. at 40.

59. *Id.* at 37.

60. *Id.* at 29.

61. As stated in *Warner-Jenkinson*, a finding of infringement under the doctrine of equivalents can be made by finding equivalents of each element of the claim, not just one element as seen in this illustration. *Id.* at 29.

avoiding liability if the only differences between the two are insubstantial, while retaining the invention's essential identity.⁶² In deciding whether a chair with legs of 25.1 inches in length is equivalent to the claimed chair with legs of 25 inches, a jury would ask whether the chair with 25.1-inch legs performed "substantially the same function in substantially the same way" to achieve substantially the same result as the chair with 25-inch legs.⁶³

E. Prosecution History Estoppel

Although the doctrine of equivalents works in favor of patentees, protecting against potentially infringing inventions that do not fall within the literal language of the claim, there are limitations on the doctrine of equivalents. These limitations include: (1) a "focus on individual elements," (2) a "special vigilance against allowing the concept of equivalence to eliminate completely any such elements," and (3) prosecution history estoppel, sometimes called "file wrapper estoppel."⁶⁴ The "file wrapper" is the complete record of the prosecution proceedings, from the filing of the patent to its issuance,⁶⁵ and is especially important because the applicant's statements to the USPTO during prosecution place additional limitations on the protections available for the patent claim.⁶⁶

Prosecution history estoppel may bar the patentee from asserting the doctrine of equivalents if the scope of the claims has been narrowed by amendment during prosecution.⁶⁷ When the patent examiner rejects a claim, the applicant is given the right to appeal the rejection.⁶⁸ However, if the applicant chooses not to appeal, "a narrowing amendment made to satisfy any requirement of the Patent Act may give rise to an estoppel."⁶⁹ Prosecution

62. *See Graver Tank*, 339 U.S. at 607–08; *Eagle Comtronics, Inc. v. Arrow Commc'n Labs., Inc.*, 305 F.3d 1303, 1315 (Fed. Cir. 2002).

63. *Graver Tank*, 339 U.S. at 608; *see also* *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1532–33 (Fed. Cir. 1987). This test, the "function-way-result" test, is one of several used to determine equivalence. *See Interactive Pictures Corp. v. Infinite Pictures, Inc.*, 274 F.3d 1371, 1382–83 (Fed. Cir. 2001).

64. *Warner-Jenkinson*, 520 U.S. at 40–41.

65. 5A CHISUM, *supra* note 16, § 18.05.

66. *See id.* § 18.01.

67. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki, Co.*, 535 U.S. 722, 733–34 (2002).

68. *See supra* notes 18–19 and accompanying text.

69. *Festo*, 535 U.S. at 736 ("Estoppel arises when [the] amendment is made . . . and the amendment narrows the patent's scope."). Recently, the Federal Circuit has applied prosecution estoppel in a number of situations in which the Court determined that the patentee narrowed a claim for the sake of patentability. *See Mycogen Plant Sci., Inc. v. Monsanto Co.*, 252 F.3d 1306, 1319–20 (Fed. Cir. 2001) (canceling a claim); *Am. Permahedge, Inc. v. Barcana, Inc.*, 105 F.3d 1441, 1446 (Fed. Cir. 1997) (using a narrowing amendment in a different claim); *Southwall Techs. Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1583–84 (Fed. Cir. 1995) (narrowing remarks). A thorough list and summary of cases in which the Federal Circuit has found a narrowing

history estoppel “limits the range of equivalents available to a patentee by preventing recapture of subject matter surrendered during prosecution of the patent.”⁷⁰

The rationale for this rule is that the amendment is a “concession that the invention as patented does not reach as far as the original claim”⁷¹ and is a “general disclaimer of the territory between the original claim and the amended claim.”⁷² This rationale fits with the basic theory behind prosecution history estoppel: “When . . . the patentee originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a rejection, he may not argue that the surrendered territory comprised unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent.”⁷³ If it were otherwise, “the inventor might avoid the [USPTO’s] gatekeeping role and seek to recapture in an infringement action the very subject matter surrendered as a condition of receiving the patent.”⁷⁴

There is a presumption of estoppel when an amendment is determined to be for a reason related to patentability.⁷⁵ This presumption may be rebutted, however, if a patentee shows “an appropriate reason for a required amendment.”⁷⁶ The patentee may demonstrate that: (1) “the alleged equivalent would have been unforeseeable at the time of the narrowing amendment,” (2) “the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent” in question,” or (3) “there was ‘some

amendment and subsequently applied prosecution history estoppel is provided in Michael N. Haynes, *Clearing the Patent Minefield—A Guide to Avoiding Infringement*, 86 J. PAT. & TRADEMARK OFF. SOC’Y 511, 514–15 (2004).

70. *Southwall*, 54 F.3d at 1579. The recapture rule and the applicability of prosecution history estoppel both depend upon whether an applicant surrendered subject matter during prosecution. See, e.g., *Hester Indus., Inc. v. Stein, Inc.*, 142 F.3d 1472, 1480–84 (Fed. Cir. 1998).

71. *Festo*, 535 U.S. at 734.

72. *Id.* at 740.

73. *Id.* at 733–34.

74. *Id.* at 734; see *Corbin Cabinet Lock Co. v. Eagle Lock Co.*, 150 U.S. 38, 40 (1893) (“Having originally sought broader claims, which were rejected, and having acquiesced in such rejection,” the patentee may not be allowed “to insist upon such construction of the allowed claim as would cover what had been previously rejected.”).

75. When the patentee originally claims the subject matter but, in response to a rejection by the examiner, narrows the scope of the claim, “courts may presume the amended text was composed with awareness of this rule and that the territory surrendered is not an equivalent of the territory claimed.” *Festo*, 535 U.S. at 741.

76. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 15, 33 (1996). “The patentee must show that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent.” *Festo*, 535 U.S. at 741.

other reason' suggesting that the patentee could not reasonably have been expected to have described the alleged equivalent."⁷⁷

The pressures placed upon the patentee due to prosecution history estoppel eased with the Supreme Court's decision in *Festo*.⁷⁸ In an opinion by Justice Kennedy, the Court rejected the Federal Circuit's "complete bar" rule, which dictated that a patentee's act of amending claim limitations during prosecution created an estoppel that barred every equivalent to the amended claim limitation.⁷⁹ The Court held that if the patentee narrows an amendment, the patentee should be presumed to have surrendered all equivalents to the amended claim limitation.⁸⁰ However, a truly "cosmetic" amendment would not narrow a claim's scope or create an estoppel.⁸¹ The Court also held that these criteria apply irrespective of whether the amendment was made by restricting a particular claim during prosecution or by replacing a broad claim with a narrower one in order to satisfy the Patent Act's requirements.⁸² The patentee, however, bears "the burden of showing that the amendment does not surrender the particular equivalent in question."⁸³

Using the previous chair claim example, which recites as one element "legs of between 20 and 25 inches in length," suppose the USPTO rejected this claim due to prior art and the claimant amended the claim to overcome the rejection, stating as one element "legs of between 20 and 23 inches in length." Assuming this amended claim was patentable, the patentee would be barred under prosecution history estoppel from asserting an infringement claim regarding a chair with legs of 24 inches in length, regardless of whether 24 inches is equivalent to "between 20 and 23 inches."

III. FEDERAL CIRCUIT'S APPLICATION OF THE DOCTRINE OF EQUIVALENTS AND PROSECUTION HISTORY ESTOPPEL TO PREVIOUSLY DEPENDENT PATENT CLAIMS

A. Honeywell International Inc. v. Hamilton Sundstrand Corp.

In *Honeywell International, Inc. v. Hamilton Sundstrand Corp.*,⁸⁴ all of the Honeywell patents at issue, United States Patent No. 4,380,893 (the "893 patent") and Patent No. 4,428,194 (the "194 patent"), were directed to an aircraft auxiliary power unit (APU), a small turbine engine normally placed in

77. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1368 (Fed. Cir. 2003) (citing *Festo*, 535 U.S. at 740–41).

78. 535 U.S. 722.

79. *Id.* at 727, 737.

80. *Id.* at 740.

81. *Id.* at 736–37.

82. *Id.* at 736.

83. *Festo*, 535 U.S. at 740.

84. 370 F.3d 1131 (Fed. Cir. 2004).

the tail section of an aircraft.⁸⁵ The Honeywell APU was designed to be more efficient by avoiding excess air bleeding in its control of “surge,” a flow instability due to a buildup of pressure in the main air duct.⁸⁶ In the claimed invention, “[a]mbient air is drawn through a set of adjustable inlet guide vanes” in order to more effectively and efficiently control surge by avoiding excess air bleeding.⁸⁷ In order to be more efficient, the Honeywell invention established a “set point,” the minimum flow at which surge could be avoided.⁸⁸ The value of the set point was a function of the position of the inlet guide vanes.⁸⁹

Sundstrand also manufactures an APU that adjusts a surge bleed valve by comparing a flow-related parameter to a set point.⁹⁰ However, the Sundstrand APU establishes a set point that is dependent upon ambient air temperature, as opposed to a measurement of the inlet guide vane position like in the Honeywell invention.⁹¹ After Honeywell filed suit against Sundstrand for infringement of the '893 and '194 patents, Sundstrand “pointed out that all of the asserted claims were originally dependent on other claims in Honeywell’s patent applications” and that these other claims “did not contain the inlet guide vane limitation.”⁹² The patent examiner rejected these claims “as obvious in light of the prior art during the prosecution of Honeywell’s patents.”⁹³ In response to the rejection of these claims, the rejected independent claims were cancelled, and a number of previously dependent claims were amended into

85. *Id.* at 1134; *see* U.S. Patent No. 4,380,893 (filed Feb. 19, 1981) (issued Apr. 26, 1983); U.S. Patent No. 4,428,194 (filed Sept. 27, 1982) (issued Jan. 31, 1984). The APU generates electricity and provides compressed air to start the main engines of the aircraft and control the environment of the cabin during flight, as the need for compressed air changes substantially during flight. *Honeywell*, 370 F.3d at 1134. The unit uses a valve to control the quantity of air exiting the compressor through the air duct that supplies compressed air to the aircraft’s systems. *Id.*

86. *Honeywell*, 370 F.3d at 1134. APUs must be designed to control surge, which is produced by rapid changes in the aircraft’s demand for compressed air. *Id.* During a surge, the air in the main air duct of the APU’s compressor is unable to exit, causing the airflow to reverse direction and flow back into the compressor and potentially cause damage to the APU. *Id.*

87. '893 Patent col.3 ll.64–65. Systems prior to the invention disclosed in the '893 patent controlled surge by drawing in excess air and venting the unneeded air through a valve to reduce the pressure in the main air duct. *Honeywell*, 370 F.3d at 1134. Although these systems controlled surge effectively, they were not energy-efficient. *Id.*

88. *Honeywell*, 370 F.3d at 1134.

89. *Id.* The actual flow and the desired flow (as represented by the set point) are compared, and if the airflow out of the main air duct is too low, the surge bleed valve is opened to prevent a buildup of pressure and, consequently, surge. *Id.*

90. *Id.* at 1136.

91. *Id.*

92. *Id.* at 1137. Claims 16 and 32 of the '893 patent and claims 48 and 49 of the '194 patent were the original claims upon which the asserted claims were originally dependent. *Id.*

93. *Honeywell*, 370 F.3d at 1137.

independent form to expressly incorporate the limitations of the rejected independent claims.⁹⁴ In other words,

A patent applicant initially seeks a broad independent claim with limitations A, B and C, but this claim is rejected as obvious in light of the prior art. Instead of contesting the rejection, the applicant elects to gain allowance by narrowing his claim scope. He does so by cancelling [sic] the independent claim and replacing it with a narrower, previously-dependent claim that adds limitation D. Thus, the applicant surrenders the broader original claim—which only had limitations A, B and C—and settles instead for the narrower claim with limitations A, B, C and D.⁹⁵

Following its recent decisions in *Deering Precision Instruments, L.L.C. v. Vector Distribution Systems, Inc.*⁹⁶ and *Ranbaxy Pharmaceuticals, Inc. v. Apotex, Inc.*,⁹⁷ the Federal Circuit held that the rewriting of dependent claims into independent form coupled with the cancellation of the original independent claims creates a presumption of prosecution history estoppel.⁹⁸ The court reiterated the Supreme Court's finding in *Festo* that “the proper focus is whether the amendment narrows the overall scope of the claimed subject matter.”⁹⁹ With this context, the court stated that “[a] presumption of surrender . . . arises if rewriting the dependent claims into independent form, along with canceling the original independent claims, constitutes a narrowing amendment.”¹⁰⁰ The court stated that even if the scope of the rewritten claim is unchanged, history estoppel will be applied if, by canceling the original claim and rewriting the dependent claims into independent form, the scope of the subject matter in the independent claim has been narrowed to secure the patent.¹⁰¹ The majority found that it was “clear that the addition of a new

94. *Id.* at 1133, 1137–38. The examiner noted that application claims 17 and 35 of the '893 patent and 51 of the '194 would be patentable if the claims were rewritten into independent form. *Id.* at 1137.

95. Respondent's Brief in Opposition at 1–2, *Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 125 S. Ct. 2928 (2004) (No. 04-293), 2004 WL 2246253.

96. 347 F.3d 1314 (Fed. Cir. 2003).

97. 350 F.3d 1235 (Fed. Cir. 2003).

98. *Honeywell*, 370 F.3d at 1141, 1143. In addition to *Deering* and *Ranbaxy*, the Federal Circuit previously applied prosecution history estoppel in *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675 (Fed. Cir. 1988). In *Diversitech*, the examiner rejected an independent claim that did not contain the limitation, which was subsequently cancelled and then replaced with a previously dependent claim that included the limitation. *Id.* at 681.

99. *Honeywell*, 370 F.3d at 1141.

100. *Id.*

101. *Id.* at 1142. The court cited in a footnote *Keith v. Charles E. Hires Co.*, in which Judge Learned Hand stated that

[w]e can see no difference between that situation [where the claim was amended to secure allowance] and one where as here the applicant files a limited and a broader claim at the same time and then cancels the broader one when it has been rejected. The theory of the “estoppel,” as it is called is that, by assenting to the cancellation of the claim and by

claim limitation can give rise to a presumption of prosecution history estoppel, just like an amendment that narrows a preexisting claim limitation.”¹⁰² Thus, the rule was applicable even in situations where the scope of the rewritten claim remained unchanged.

Judge Newman dissented in *Honeywell*.¹⁰³ She stated that “[t]his new rule will simply drive patent applicants away from dependent claims and away from the accepted protocol of presenting successively narrowed dependent claims for examination.”¹⁰⁴ Newman pointed out that the new rule “will simply raise the cost and increase the difficulty of patent examination.”¹⁰⁵ By adding presumptive estoppels to elements and limitations that were never a basis of rejection and never narrowed during examination, the court in its decision “further erodes the ability of inventors to protect their inventions.”¹⁰⁶ Newman also posited that “[a]lthough the majority attributes its ruling to the Supreme Court, this new leap for inventors is not the Court’s work but that of my colleagues.”¹⁰⁷

Newman challenged the majority’s ruling by citing to 35 U.S.C. § 112 for her contention that when a dependent claim is placed in independent form, the new independent claim simply states what was previously stated and incorporated by reference.¹⁰⁸ For authority, Newman cited pre-*Festo* Federal Circuit cases that support the finding that restating a dependent claim in

amending it, the applicant has abandoned it as it stood. Certainly it cannot be necessary to this conclusion that he shall amend the cancelled claim, when he has already filed a claim which contains the necessary differentia.

Id. at 1142–43 n.8 (quoting *Keith v. Charles E. Hires Co.*, 116 F.2d 46, 48 (2d Cir. 1940)).

102. *Id.* at 1141. The court went on to state that if “only narrowing amendments to preexisting claim limitations could give rise to the presumption, the purpose of preventing patentees from recapturing subject matter conceded during prosecution would be undermined.” *Id.* The court cited *Deering* as an example of the Federal Circuit applying the rule post-*Festo*. *Id.* at 1143.

103. *Id.* at 1146 (Newman, J., dissenting). Judge Newman charged that the court changed the law in two ways: by going directly against the Patent Act and by adding another restriction to the doctrine of equivalents, exceeding the Supreme Court’s holdings in *Warner-Jenkinson* and *Festo*. *Id.*

104. *Honeywell*, 370 F.3d at 1146.

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.* The fourth paragraph of § 112 states, “[A] claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” 35 U.S.C. § 112 (2000). Judge Newman went on to argue, “Rewriting of a claim in accordance with 35 U.S.C. § 112 ¶ 4 can never be a narrowing amendment, because, by statute, rewriting a dependent claim in independent form does not narrow the claim’s scope.” *Honeywell*, 370 F.3d at 1150 (Newman, J., dissenting).

independent form is not a basis for estoppel.¹⁰⁹ In addition, Newman cited the Federal Circuit's own holding in the remand of *Festo* from the Supreme Court, in which the court stated that "[t]he first question in a prosecution history estoppel inquiry is whether an amendment filed in the Patent and Trademark Office has narrowed the literal scope of a claim. If the amendment was not narrowing, then prosecution history estoppel does not apply."¹¹⁰

Newman went on to discuss the notice function of prosecution history estoppel, and the purpose behind the doctrine, stating that canceling an independent claim in favor of a dependent claim restated as an independent claim is "not notice of a retrenchment in the scope of the dependent claim."¹¹¹ Because restating a dependent claim in dependent form is not retrenchment, it is not a signal to competitors that the patentee has forfeited equivalents of remaining claims that have not been rejected.¹¹² In distinguishing the immediate case from *Deering* and *Ranbaxy*, Newman stated that the court had now imposed an "unbounded estoppel."¹¹³

Finally, Newman's dissenting opinion discussed the challenge that the Federal Circuit's decision would bring to patentees, stating: "Today's new rule solves no problem, rights no wrong, addresses no unmet need."¹¹⁴ Newman noted that because future applicants may attempt to avoid drafting dependent claims, applications will cost more, there will be more opportunities for

109. *Honeywell*, 370 F.3d at 1147. Judge Newman cited *Bloom Engineering Co. v. North American Manufacturing Co.*, 129 F.3d 1247, 1250 (Fed. Cir. 1997) (holding that restating original claims in independent form, standing alone, did not change the scope of the original claims), *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989) (holding that a dependent claim included all of the limitations of the claim on which it depended), and *Hartness International, Inc. v. Simplimatic Engineering Co.*, 819 F.2d 1100, 1108 (Fed. Cir. 1987) (holding that a dependent claim included all of the limitations of the independent claim, with the further limitation of tapered partitions).

110. *Honeywell*, 370 F.3d at 1148 (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1366–67 (Fed. Cir. 2003)).

111. *Id.* at 1150. As support, Newman cited *Schwing GmbH v. Putzmeister Aktiengesellschaft*, 305 F.3d 1318, 1324 (Fed. Cir. 2002), in which Judge Bryson stated, "Although prosecution history can be a useful tool for interpreting claim terms, it cannot be used to limit the scope of a claim unless the applicant took a position before the PTO that would lead a competitor to believe that the applicant had disavowed coverage of the relevant subject matter." *Honeywell*, 370 F.3d at 1151 (citing *Schwing*, 305 F.3d at 1324).

112. *Honeywell*, 370 F.3d at 1151.

113. *Id.* at 1152. In both *Deering*, discussed *infra* Part III.B, and *Ranbaxy*, the dependent claim limited an element contained within the original independent claim, thus leading to the presumption of surrender of "all territory between the original claim limitation and the amended claim limitation." *Id.* (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 740 (2002)).

114. *Id.* at 1153.

mistakes, and patent examination within the USPTO will be more time consuming.¹¹⁵

B. *Deering Precision Instruments, L.L.C. v. Vector Distribution Systems, Inc.*

In *Deering Precision Instruments, L.L.C. v. Vector Distribution Systems, Inc.*,¹¹⁶ the Federal Circuit affirmed the district court's grant of summary judgment of no literal infringement, but vacated the district court's grant of summary judgment of no infringement under the doctrine of equivalents.¹¹⁷ The relevant patent assigned to Deering, United States Patent No. 4,744,428 (the "428 patent"), involved "a compact, light-weight, pocket-type scale capable of accurately weighing substances up to ten grams."¹¹⁸ The invention was important because its design minimized the overall size of the scale while maintaining the ability to accurately weigh small substances.¹¹⁹ Deering initially filed with the USPTO an application containing ten claims, claims 1 and 9 being in independent form.¹²⁰ Original claim 9 was similar to original claim 1, but contained an additional limitation, the "Zero Position Limitation."¹²¹ This limitation refers to the portion of the sliding weight that is "disposed substantially in an imaginary plane containing the fulcrum of the beam" when the sliding weight is in the zero position.¹²² After reviewing the application, the USPTO rejected claims 1, 2, and 5-7 as being obvious under

115. *Id.* These and other effects of the court's rulings in *Honeywell* and *Deering* are discussed *infra* Part IV. Judge Newman concluded with a personal comment: "The losers are those patentees who had no reason to foresee today's new rule, and future patentees who will have to cope with it." *Id.*

116. 347 F.3d 1314 (Fed. Cir. 2003), *cert. denied*, 540 U.S. 1184 (2004).

117. *Id.* at 1316. The district court's decision can be found at *Deering Precision Instruments, L.L.C. v. Vector Distribution Systems, Inc.*, No. 01 C 1118, 2001 WL 1035713 (N.D. Ill. Sept. 4, 2001).

118. *Deering*, 347 F.3d at 1316-17; *see* U.S. Patent No. 4,744,428 (filed Sept. 29, 1986) (issued May 17, 1988). The issued patent has five claims, "claims 1, 3, and 4 being in independent form." *Deering*, 347 F.3d at 1317. Claims 1, 2, 4, and 5 were at issue. *Id.*

119. *Deering*, 347 F.3d at 1318. The inventors were able to minimize the size of the scale by designing a sliding weight which moved the weight's "center of mass closer to the plane created by the fulcrums of the scale." *Id.*

120. *Id.*

121. *Id.*

122. *Id.* Original claim 1 described as follows:

[A] light-weight portable scale having a base, a beam with a substance holder at one end and a scale extending in an opposite direction, a sliding weight movably carried by the beam for movement along the scale, a pair of metallic fulcrum posts projecting upwardly from the base, and a pair of metallic bearing inserts in the beam for cooperation with the fulcrum posts.

Id. Original claim 3, which was dependent on original independent claim 1, also included the Zero Position Limitation. *Id.*

35 U.S.C. § 103(a).¹²³ The USPTO also “objected to claims 3, 4, and 8–10, but indicated that they would be allowable if rewritten in independent form.”¹²⁴ In response, Deering submitted “original claim 3 rewritten in independent form as new claim 11.”¹²⁵ The USPTO subsequently issued the patent, with claim 11 listed as independent claim 1.¹²⁶

Vector also manufactures and sells its own version of a pocket-size scale, the VX-10.¹²⁷ The sliding weights of the VX-10 do not extend into the imaginary plane in which the fulcrum lies when the weights are in their “zero positions,” and in fact the sliding weights are no closer than .10 inches from the imaginary plane when in their respective “zero positions.”¹²⁸ The main differences between Vector’s VX-10 and Deering’s ’428 patent are the VX-10’s additional counterweight and the placement of the sliding weights outside the plane of the fulcrum.¹²⁹

Deering sued Vector for infringement upon discovering that Vector was selling a pocket-size scale.¹³⁰ The district court determined that Vector’s scale “did not literally infringe any of the asserted claims of the ’428 patent.”¹³¹ In addition, the district court held that because Deering amended original claim 1 during prosecution by deleting it, the Federal Circuit’s decision in *Festo* barred “every asserted claim by Deering concerning equivalents for the Zero Position Limitation.”¹³² “The district court held that prosecution history estoppel applies to any limitation narrowed during prosecution in all claims in the patent regardless of whether the limitation is present in a claim that itself was never amended.”¹³³ According to the Federal Circuit, the estoppel question

123. *Id.* at 1319.

124. *Deering*, 347 F.3d at 1319.

125. *Id.* In addition, Deering stated that, with respect to claim 9, which had not been rejected, the examiner must have overlooked that claim 9 was an independent claim, and that claim 10, which was rejected, was dependent only from claim 9. *Id.* Deering stated its belief that “[c]laims 9 and 10 were allowable as written.” *Id.*

126. *Id.*

127. *Id.*

128. *Id.* at 1320.

129. *Deering*, 347 F.3d at 1320. The VX-10 uses an additional stationary counterweight attached to the substance holder support member, which balances the scale in the zero position. *Id.* This is in contrast to the ’428 patent which places the majority of the weight’s center of mass in the plane of the fulcrum. *Id.*

130. *Id.*

131. *Id.* at 1321. After relying on the intrinsic evidence within the ’428 patent, the district court determined the Zero Position Limitation “to mean that the weight must enter and penetrate the imaginary plane containing the fulcrum of the beam.” *Id.* After this claim construction, the district court held that the VX-10 did not literally infringe claims 1, 2, 4, and 5 of the ’428 patent, the claims asserted by Deering to be infringed. *Id.*

132. *Id.* at 1321.

133. *Id.* Even though independent claims 4 and 5 were not amended during prosecution, the district court barred Deering from asserting the doctrine of equivalents for these claims pursuant

that related to “Deering’s addition of independent claim 11, coupled with the clear surrender of the broader subject matter of the deleted original independent claim[,] presumptively bar[red] Deering from arguing infringement under the doctrine of equivalents.”¹³⁴ The *Deering* court stated that the “correct focus is on whether amendment surrendered subject matter that was originally claimed for reasons related to patentability.”¹³⁵ However, the focus here is not on whether any particular claim had been subject to a narrowing amendment, but rather whether the subject matter had been relinquished.¹³⁶ In rejecting Deering’s argument that the amendment was merely “cosmetic,” the court held that the deleted original independent claim presumptively barred the patentee from arguing equivalents related to the Zero Position Limitation.¹³⁷ This presumption was applied by the court to all claims containing the Zero Position Limitation without regard to whether the claim was amended during prosecution or not.¹³⁸ In other words, based on this case, if a patentee cancels a claim and adds another claim rather than amending a rejected claim, the added claim will not be entitled to the doctrine of equivalents even though it had never been amended.

IV. ANALYSIS

A. *Negative Effects of Honeywell and Deering on Patent Drafting*

The effects of these cases, especially *Honeywell*, are profound.¹³⁹ The *Honeywell* and *Deering* decisions will likely force patent applicants to modify

to the decision in *Builder’s Concrete, Inc. v. Bremerton Concrete Products Co.*, 757 F.2d 255 (Fed. Cir. 1985). In *Builders Concrete*, the Federal Circuit held that although claim 10 was the only claim at issue, the prosecution history of *all* claims was not protected from review to determine the scope of claim 10. *Id.* at 260. The court went on to state,

To hold otherwise would be to exalt form over substance and distort the logic of this jurisprudence. . . . The fact that the “passage” clause of patent claim 10 was not itself amended during prosecution does not mean that it can be extended by the doctrine of equivalents to cover the precise subject matter that was relinquished in order to obtain allowance of claim 1.

Id.

134. *Deering*, 347 F.3d at 1325.

135. *Id.* (citing *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 736 (2002)).

136. Thus, independent claim 4, which was never amended during prosecution, contained the disputed Zero Position Limitation, and prosecution history estoppel presumptively applied equally to claim 4, as well as dependent claim 5. *Id.* at 1326.

137. *Id.* The allowance of claim 1 depended on narrowing the Zero Position Limitation, and because independent claim 4 and dependent claim 5 both contained the Zero Position Limitation, prosecution history estoppel applied to each of these claims. *Id.*

138. *Id.* (citing *Builders Concrete*, 757 F.2d at 260).

139. One commentator stated that *Honeywell* “appears to have so changed the definition of a dependent claim and to have so changed the effect of its use and its amendment during

their prosecution procedures and methods in order to prevent the imposition of estoppel during litigation.¹⁴⁰

1. Applicants Should Avoid Reliance on the Doctrine of Equivalents

In general, applicants need to avoid reliance upon the doctrine of equivalents in litigation proceedings, as the Federal Circuit's rulings in the above cases, as well as other cases involving what were determined to be narrowing amendments,¹⁴¹ signal the Circuit's continued expansion of prosecution history estoppel and the consequent shrinking of the applicability of the doctrine of equivalents.¹⁴² To avoid use of the doctrine of equivalents and decrease the possibility of estoppel, applicants should draft claims with an eye toward literal infringement. However, as patentees are forced to rely more on literal infringement, the purpose upon which the doctrine of equivalents was based—to protect patentees from non-literally infringing devices with insubstantial differences from the patented invention—will erode. This

application prosecution that the practitioner should reconsider using dependent claims at all, or whether or how they should be amended." FABER, *supra* note 22, § 2:9, at 2-25.

140. These cases are prime examples that the Federal Circuit focuses its analysis in an infringement case on the cancelled claim and not the issued claim. Kirk M. Hartung, *The Doctrine of Equivalents: A Matter of Chance and Confusion*, 86 J. PAT. & TRADEMARK OFF. SOC'Y 645, 652 (2004). Hartung presents an example for illustration:

[T]he dependent claim 2 provides for a device comprising A, B, C and D. The accused device has elements A, B, C and D'. The cancelled independent claim 1 required elements A, B, and C. The issue is whether D' is the equivalent of D. Certainly the accused device A, B, C, D' is covered by the cancelled claim 1, since each of element A, B and C are present in the accused device. However, this coverage does not answer whether D and D' are equivalent. Cancellation of claim 1 does not mean that claim 2 cannot be infringed if D and D' are equivalent

Id.

141. See *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 681 (Fed. Cir. 1988) (providing that the patentee's arguments surrendered the scope that was claimed as being equivalent, and thus holding that these arguments applied to every claim, regardless of whether amendments had actually been made to the individual claim); *Builders Concrete*, 757 F.2d at 260 (finding that although the claim had not been amended, "the precise subject matter that was relinquished in order to obtain allowance" of another claim could not be recaptured).

142. A number of commentators have described the burdens that the Federal Circuit's decision in *Honeywell* will have on patent law, and specifically the applicability and usefulness of the doctrine of equivalents. See Matt Williams, *An End to the Doctrine of Equivalents?* *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 42 BRANDEIS L.J. 467, 469-70 (2004). For recent comments approaching the same issue, see Derek Walter, *Prosecution History Estoppel in the Post-Festo Era: The Increased Importance of Determining What Constitutes a Relevant Narrowing Claim Amendment*, 20 BERKELEY TECH. L.J. 123, 125, 145-46 (2005); Wing H. Liang, Note, *Honeywell: The Straw That May Just Break the Inventor's Back*, 26 CARDOZO L. REV. 2655, 2694-95 (2005); and Andrew J. Tuck, Note, *Honeywell International Inc. v. Hamilton Sundstrand Corp.: A Rose by an Independent Description Does Not Smell as Sweet*, 39 GA. L. REV. 1521, 1561-62 (2005).

becomes especially problematic as patentees are estopped from asserting infringement because of trivial prosecution errors that have no effect upon the notice function of their patents.¹⁴³

2. The Patenting Process Will Become More Expensive

As a result of these Federal Circuit rulings, the patenting process will become more expensive.¹⁴⁴ In 1965 Congress gave statutory recognition to dependent claims by providing a fee of “\$10 for each claim in independent form which is in excess of one, and \$2 for each claim (whether independent or dependent) which is in excess of ten.”¹⁴⁵ In the same Act, Congress furthered its preference for dependent claims by amending 35 U.S.C. § 112 to state that “[a] claim may be written in independent or dependent form, and if in dependent form, it shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.”¹⁴⁶

Today, however, the price for each independent claim in excess of three stands at \$200.¹⁴⁷ In late 2004 Congress changed the fee structure at the

143. The Federal Circuit in *Honeywell* continued its recent trend of favoring the notice function of patents over broader protection against infringement afforded by the doctrine of equivalents. Sam Niece & Adrienne Yeung, *Another Nail in the Doctrine of Equivalents' Coffin*, NEV. LAW. Sept. 2004, at 23, 24 & n.9 (quoting *Pioneer Magnetics, Inc. v. Micro Lenear Corp.*, 330 F.3d 1352, 1356 (Fed. Cir. 2003)) (“Only the public record of the patent prosecution, the prosecution history, can be a basis for such a reason. Otherwise, the public notice function of the patent record would be undermined.”); see *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003) (“The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent.”); *Superior Fireplace Co. v. Majestic Prods. Co.*, 270 F.3d 1358, 1371 (Fed. Cir. 2001) (discussing the statutory scheme of the Patent Act’s “concern for the public notice and for protecting the public from the unanticipated broadening of a claim”).

144. The existence of the doctrine of equivalents keeps the price of patenting down, as the patentee is protected from infringement beyond the literal scope of the drafted claims, and does not have to draft every conceivable claim to be protected from literal infringement. See Joseph S. Cianfrani, *An Economic Analysis of the Doctrine of Equivalents*, 1 VA. J.L. & TECH. 1, 45–49 (1997).

If the ex ante value to the patentee of the territory protected by the doctrine of equivalents is less than the cost of prosecution, then incentives to innovate would be reduced by an equal amount if the doctrine were to be eliminated. . . .

. . . .

Were the doctrine of equivalents eliminated . . . [s]ociety would lose the benefits provided by the incentives to innovate equal to the costs of the patentee in having to claim every conceivable variation on the claims, or bear the costs of unenforceability against unclaimed variations.

Id.

145. Act of July 24, 1965, Pub. L. No. 89-83, § 1, 79 Stat. 259, 259.

146. *Id.* § 9 (codified as amended at 35 U.S.C. § 112 (2000)).

147. For a list of USPTO fees for the year 2005, see UNITED STATES PATENT AND TRADEMARK OFFICE, FY 2005 FEE SCHEDULE (2004), www.uspto.gov/go/fees/fee2004

USPTO in an attempt to increase revenue in order to hire additional patent examiners to alleviate the backlog of applications.¹⁴⁸ As part of this fee restructuring, which provides for separate filing fees, examination fees, and search fees, there are extra USPTO fees for patents containing more than twenty claims.¹⁴⁹ The new fee structure will increase prosecution costs at an inopportune time due to the constriction on dependent claims as provided by *Honeywell* and *Deering*. As practitioners will have to draft tighter claims in greater quantity, the amount of time to research and draft the claims, and consequently the fees charged, will increase. With *Festo*, it was stated that the case “will most likely result in longer patent applications with more claims, and more protracted proceedings before the [USPTO], thus increasing the cost of obtaining patents.”¹⁵⁰ The same is likely as a result of these decisions.¹⁵¹

3. Reliance on Broad Independent Claims and Narrow Dependent Claims Will Decrease

It may no longer be feasible to rely on broad independent claims followed by numerous narrow dependent claims. These decisions will force applicants and patent attorneys to consider the possibility that the broad independent claim will be rejected, and that, in response, the dependent claims will not be able to be amended to prevent estoppel in future litigation proceedings. In

dec08.htm [hereinafter 2005 FEE SCHEDULE]. In fact, legislation has been presented that would increase the fees to be paid to the USPTO. This legislation would raise the costs of filing fees, the number of claims, the number of independent claims, and other categories. H.R. 1561, 108th Cong. (2003), available at www.aipla.org/Content/ContentGroups/Legislative_Action/108th-Congress1/House/hr1561.pdf. For a summary of the current fees and those proposed in the legislation, see Dennis Crouch, Patent Law Blog, http://patentlaw.typepad.com/patent/2004/11/in_may_i_report.html (last visited Jan. 21, 2006).

148. Stephen A. Gigot, *New Patent Office Fees and Efforts to Harmonize Some Aspects of the U.S. System with Japanese and European Systems*, MARTINDALE.COM, Jan. 15, 2005, http://lawyers.martindale.com/xp/Martindale/Legal_Articles/article_search.xml (type “Gigot” into last name field and “Stephen” into first name field) (free registration required to view).

149. 2005 FEE SCHEDULE, *supra* note 147; see also Molly M. Peterson, *IT Groups Back Temporary Patent Office User Fee Boost*, GOVEXEC.COM, Sept. 14, 2004, <http://www.govexec.com/dailyfed/0904/091404cdam1.htm> (explaining that the patent office has long suffered by having its fees diverted to other government agencies and has thus been unable to retain examiners who often escape to the private sector for higher salaries).

150. Steven J. Rizzi & Jessica L. Bagner, *Litigating Infringement Under the Doctrine of Equivalents After Festo*, 721 PAT. LITIG. 345, 369 (2002).

151. In 2003, the average legal cost to file a utility patent application was about \$10,000 according to the American Intellectual Property Law Association Economic Survey. See Melissa Mahler, *Protecting Your IP Assets*, NIXON PEADBODY, July, 14, 2004, http://www.nixonpeabody.com/publications_detail3.asp?Type=P&PAID=57&ID=682. The costs for prosecuting a patent to completion, including fees paid to the USPTO, and attorney’s fees, generally range from \$10,000 to \$30,000 per patent. Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1498 (2001).

considering the possibility of this situation, the patent attorney should draft independent claims that will reduce the chances that a narrowing amendment will be necessary for patentability. To accomplish this goal, the practitioner must draft tighter independent claims, ones that are broad enough to not be found unpatentable in view of the prior art, but that provide adequate coverage of the invention.¹⁵²

4. The Use of Dependent Claims Will Decrease, While Multiple Independent Claims Will Be Utilized

Dependent claims, which are used for clarity and efficiency,¹⁵³ will likely be utilized less as a result of these recent decisions.¹⁵⁴ Dependent claims are not narrowed by cancellation of an independent claim. Although “[e]xcessive use of independent claims is a hallmark of a poorly written patent application,”¹⁵⁵ an increase in the number of independent claims within an application may help the applicant avoid the problems associated with amendment. Applicants should draft multiple independent claims of varying specificity and narrowness so as to decrease the chances of estoppel while providing the invention with adequate coverage for literal infringement and use of the doctrine of equivalents. Although independent claims normally use broad definitions that are supported and clarified by narrower dependent claims, applicants must now draft independent claims of varying terminology to provide more specificity.¹⁵⁶ At the very least, the applicant should file a few claims that are sure to be patented without the need for an amendment.

152. Patentees drafted narrow claims following the Federal Circuit’s decision in *Festo* to avoid having to make amendments due to the potential of a complete bar, but are now drafting broader claims following the Supreme Court’s opinion in *Festo*, which did away with the complete bar. Rizzi & Bagner, *supra* note 150, at 368. Despite the absence of a complete bar, patentees should still be careful in drafting claims, as there is still uncertainty regarding application of the rebuttable presumption in the Supreme Court’s opinion. *Id.*

153. *See, e.g., Honeywell Int’l Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1148 (Fed. Cir. 2004).

By the early twentieth century the Office recognized that for clarity, brevity, and convenience the use of dependent claims “would reduce the number of claims and make division between independent inventions clear and easy” because “such a claim would be self-analyzing and self-classifying, and therefore make the examination of the claim easier.”

Id. (quoting *Ex parte Brown*, 1917 C.D. 22 (Comm’r Pat. 1917)).

154. It should be noted that some practitioners are hesitant to write dependent claims. IRVING KAYTON, PATENT PRACTICE 3-6 (4th ed. 1989).

155. Robert D. Fish, *Cost-Effective Patenting*, FINDLAW.COM, 2003, <http://library.findlaw.com/2003/Oct/24/133108.html>.

156. *See* FABER, *supra* note 22, § 2:9, at 2-23 (“Dependent claims are used to add additional features and/or to expand upon and to detail previously claimed features.”).

Another possibility is for the applicant to initially file narrow patent claims and file broader claims in a continuation application.¹⁵⁷

By decreasing the use of dependent claims, and increasing the number of independent claims, the result will be an increase in the number of elements within these claims. However, because every element of a claim must be found in the alleged infringing device to prove infringement,¹⁵⁸ patentees will consequently be less protected in infringement litigation.¹⁵⁹

5. The Patenting Process Will Require More Time

Another implication of the rulings of *Deering* and *Honeywell* is an increase in the time required to properly examine and prosecute a patent. Remember that stating “[a] claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,”¹⁶⁰ and that “dependent . . . claims shall be presumed valid even though dependent upon an invalid claim.”¹⁶¹ Thus, the use of independent and dependent claims assists in the speedy examination of patent applications, as the examiner only has to read the independent claim, and then each dependent claim specifically referencing that independent claim.¹⁶² Practitioners will now be forced to draft more patent claims in independent form to avoid the application of prosecution history estoppel, and as a result, the difficulty inherent in interpreting the

157. Once an application has been filed with the USPTO, an applicant may file subsequent or continuation applications. CHISUM & JACOBS, *supra* note 18, at 2-107-08. A continuation-in-part application “is an application filed during the lifetime of an earlier nonprovisional application, repeating some substantial portion or all of the earlier nonprovisional application and adding matter not disclosed in the said earlier nonprovisional application.” MPEP, *supra* note 33, § 201.08. Some commentators have argued in favor of abolishing the practice of continuations. See, e.g., Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63, 65 (2004).

158. See *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950) (“In determining whether an accused device or composition infringes a valid patent, resort must be had in the first instance to the words of the claim. If accused matter falls clearly within the claim, infringement is made out and that is the end of it.”).

159. See *Jamesbury Corp. v. Litton Indus. Prods., Inc.*, 586 F.2d 917, 924 (2d Cir. 1978) (“[I]n a patent claim, more means less . . .”). As an example, if a claim contains the limitations A, B, and C, an invention is infringing if these limitations are present. However, as claims must be drafted tighter to avoid having to amend during prosecution, the claim will likely contain additional limitations, such as D, which must also be present in the potentially infringing invention for that invention to infringe upon the claim.

160. 35 U.S.C. § 112 (2000).

161. *Id.* § 282. The statute has “resulted in nearly universal usage of dependent claims, simplifying the jobs of everyone who must ever consider the patents.” FABER, *supra* note 22, § 2:9, at 2-25.

162. See FABER, *supra* note 22, § 2:9, at 2-24 (“The main advantage of dependent claims, of course, is that they require far less time to examine, and those using them should be given a financial incentive.”).

invention being sought in a specific claim, as well as the differences between what is included in each individual independent claim, will increase. Courts should not place additional pressure on the USPTO and patentees, especially as the time required for patenting continues to increase.¹⁶³

6. Claim Drafting Will Require a Higher Degree of Foreseeability

Honeywell and *Deering* amplified the need for applicants and practitioners to approach initial claim drafting with a mind toward rejection by the examiner. These cases require the attorney to be even more proactive than normal, recognizing that in order to salvage an application and achieve patentability, a previously dependent claim may need to be incorporated into the original independent claim that it references. These cases require a higher degree of foreseeability in terms of drafting a claim as either independent or dependent, as the choice of either one could influence the scope of any possible equivalents and inadvertently lead to the application of prosecution history estoppel due to the amendment of the previously dependent claim.¹⁶⁴ After the Federal Circuit's *Festo* decision, "patent prosecutors resorted to drafting narrow claims so as to avoid amending them during prosecution and risking a complete bar."¹⁶⁵ *Honeywell* and *Deering* will force prosecutors to second-guess placing a claim in dependent form, as opposed to independent form, in order to reduce the risk of estoppel. At a minimum, the *Honeywell* decision requires the claim-drafter to acknowledge that there may not be a range of equivalents available for the subject matter contained in the filed dependent claims if those dependent claims are subsequently converted to independent claims.

7. The Doctrine of Equivalents Has Again Been Limited

Honeywell and *Deering* further constricted the applicability of the doctrine of equivalents upon the field of patent law. The Supreme Court in *Festo* established a presumption of surrender, with a consideration for the differences

163. This is an especially difficult problem in terms of the stress that is placed on the USPTO and its examiners to decrease the time required to patent an invention. In fact, Jon W. Dudas, the former head of the USPTO, states that the average time needed to review a patent, presently more than two years, is expected to double in five years. John W. Schoen, *U.S. Patent Office Swamped by Backlog*, MSNBC.COM, Apr. 27, 2004, <http://www.msnbc.msn.com/id/4788834>. According to Dudas, this "could have a chilling effect on innovation." *Id.*

164. "Foreseeability" is also being applied to the use of prosecution history estoppel in terms of rebutting the presumption that estoppel applies. See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1368 (Fed. Cir. 2003). Thus, attorneys have been burdened lately by having to exercise greater foresight in terms of anticipating equivalents and possible rejections.

165. Rizzi & Bagner, *supra* note 150, at 368.

in scope between the original and amended claims.¹⁶⁶ These cases, however, signal a warning to practitioners that prosecution history estoppel has stretched beyond the boundaries set by the Supreme Court. The cancellation of broad claims may restrict narrow claims to their literal terms, despite the fact that these claims were allowable following the initial application by the patentee and were never amended.¹⁶⁷ As the courts continue to limit the ability of patentees to stretch beyond the literal scope of their claims, the doctrine of equivalents and the protections it provides patentees will be further limited.

8. Patentees Will Be More Likely To Appeal a Rejection and Argue That the Reason for Amendment Is Not for Patentability

As previously stated, applicants are given two choices when the examiner rejects the patent: appeal the rejection and argue with the examiner regarding the reasons for rejection, or amend the claim in view of the prior art and the reasons for rejection.¹⁶⁸ In view of the Federal Circuit's recent rulings and the devastating effects of estoppel in litigation proceedings, applicants will be more inclined to appeal the rejection as opposed to amending claims. This is especially true for applicants who are forced into this situation when the amendments are for minor matters, such as changing a dependent claim into an independent claim without adding any new limitations. In addition, the applicant should argue before amending that any such amendment is for some reason other than patentability, as prosecution history estoppel deals with amendments made for patentability purposes.¹⁶⁹

B. *Positive Effects of Honeywell and Deering on Patent Drafting*

Although there are many negative consequences regarding the Federal Circuit's decisions in *Honeywell* and *Deering*, there are also positive rationales and outcomes to be considered.

1. The Notice Function of Patents Should Be Preserved and Protected

The courts have always looked at the doctrine of equivalents with trepidation, as reflected in the many decisions limiting its use and expanding upon the areas covered by prosecution history estoppel.¹⁷⁰ The courts have

166. *Festo*, 344 F.3d at 1368 (citing *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 741 (2002)).

167. See discussion *supra* Part II.E.

168. See *supra* notes 18–19 and accompanying text; *Festo*, 535 U.S. at 736.

169. Applicants are permitted to conduct interviews with examiners to discuss the reasons for rejections. United States Patent and Trademark Office, *Examination of Applications and Proceedings in the Patent and Trademark Office*, <http://www.uspto.gov/web/offices/pac/doc/general/exam.htm> (last visited Jan. 21, 2006).

170. See Jerome G. Lee et al., *Equitable Defenses in Patent Cases*, 320 PAT. LIT. 571, 643–44 (1991) (“Federal Circuit decisions demonstrate the expansion of prosecution history estoppel to

limited the use of the doctrine by considering the public's interests in notification regarding the boundaries of the patentee's claimed invention.¹⁷¹ The doctrine of equivalents protects the indeterminate bounds of a patent, which may inhibit the development of new products.¹⁷² Thus, the broad interpretations and reach of these patent claims may be seen as inhibiting the promotion of the arts and sciences that the patent laws were designed to uphold under the Constitution. The rulings in *Honeywell* and *Deering* represent another step towards abolishing the doctrine of equivalents and protecting the notice function of patents.

2. The Applicant Knows That the Claim Scope Is Being Narrowed and the Attorney's Decision to Amend Should Be Honored

Recall that a dependent claim must contain reference to another claim "and then specify a further limitation of the subject matter claimed."¹⁷³ Thus, the applicant is aware that claim scope is being narrowed and surrendered by incorporating the independent claim into the dependent claim because the

include consideration of limitations imposed by an increasingly expansive set of factors related to the prosecution process, besides the file wrapper itself, when applying the doctrine of equivalents.").

171. Recently, a Federal Circuit judge noted the public's right to know the inventions that would infringe, and those that would not. *SmithKline Beecham Corp. v. Apotex Corp.*, 365 F.3d 1306, 1328 (Fed. Cir. 2004), *vacated en banc*, 403 F.3d 1328 (Fed. Cir. 2005) (Gajarsa, J., concurring). In a concurring opinion in *SmithKline*, Judge Gajarsa stated that early cases such as *Bates v. Coe*, a Supreme Court decision from 1878, "demonstrate the longstanding centrality of the public notice function to patent policy." *Id.* at 1328–29; *see Bates v. Coe*, 98 U.S. 31, 39 (1878).

Accurate description of the invention is required by law, for several important purposes:

1. That the government may know what is granted, and what will become public property when the term of the monopoly expires.
2. That licensed persons desiring to practice the invention may know during the term how to make, construct, and use the invention.
3. That other inventors may know what part of the field of invention is unoccupied.

Bates, 98 U.S. at 39.

172. Thomas K. Landry, *Certainty and Discretion in Patent Law: The On Sale Bar, The Doctrine of Equivalents, and Judicial Power in the Federal Circuit*, 67 S. CAL. L. REV. 1151, 1172–73 (1994).

For potential infringers, extra caution means licensing or avoiding patented technology, even where legal rights are honestly disputable. . . . The inventor might be chilled from offering the invention for sale, thus forgoing income that might be needed and hampering public choice by depriving the public of knowledge about the state of the art. . . .

. . . Lawsuits become more complex, and enforcement and defense more expensive, as indeterminacy and unpredictability increase.

Id. In an early Federal Circuit decision in the *Festo* dispute, Judge Plager, in a concurring opinion, stated that the Federal Circuit attempted to limit some of the indeterminacy of the doctrine of equivalents by establishing a set of bright-line rules. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 592 (Fed. Cir. 2000).

173. 35 U.S.C. § 112 (2000).

claim now involves further limitation. In addition, the decision to amend fits within the expertise of the patent attorney. The lawyer's conscious decision regarding the bounds of the claimed invention should be honored by the court.

Additionally, it is important to view claim amendments from another angle. If the applicant had rewritten the independent claim to incorporate the dependent claim and its limitation, and subsequently cancelled the dependent claim, the resultant claim would be the same as rewriting a dependent claim in independent form and canceling the originally independent claim. The first situation would result in prosecution history estoppel, and as the resultant claims would be identical, the logical conclusion is that the latter should also be held to be a narrowing amendment and subject to prosecution history estoppel.

3. Patentees May Still Rebut the Presumption of Estoppel

Despite the fact that prosecution history estoppel may be presumed on a wider basis following *Honeywell* and *Deering*, the patentee is still not completely estopped from asserting the doctrine of equivalents against potentially infringing devices. A patentee is still afforded the right to rebut this presumption of estoppel per the standards dictated in *Festo*.¹⁷⁴ These cases may tighten the scope of the doctrine of equivalents and provide patentees with less recourse in the face of potential infringers, but the safeguards provided by the Supreme Court in *Festo* still afford patentees the opportunity to avoid estoppel.

4. Patentees Will Not Have To Rebut the Presumption of Estoppel As Often

With regard to the presumption of estoppel under *Festo*, the court's holding in *Honeywell* may in a way aid the patentee and the practitioner. By increasing the frequency of independent claims, and decreasing the usage of dependent claims, there is a higher possibility of obtaining a judgment of infringement under the doctrine of equivalents without having the burden of overcoming *Festo*'s presumption.¹⁷⁵ The patentee will not be found to have forfeited its rights under the doctrine of equivalents due to the decreased need for amendments.

174. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 740–41 (2002). There is a belief that it is substantially easier to overcome the presumption in a number of high-tech areas because of the rapid evolution in technology, including computer software, biotechnology, and telecommunications. Rizzi & Bagner, *supra* note 150, at 364.

175. *See Niece & Yeung, supra* note 143, at 24.

V. CONCLUSION

Although courts generally desire to uphold the notice function of patent claims by strengthening prosecution history estoppel and inhibiting the use of the doctrine of equivalents in patent litigation, the Federal Circuit in *Honeywell* and *Deering* failed to properly consider and evaluate the negative ramifications of these decisions on the patenting process and the protection of patents and inventions. The extension of prosecution history estoppel to situations in which a patentee makes a dependent claim into an independent claim, especially when the patentee has not added further limitations than that which were in the original application, does not bolster the notice function of patents, which prosecution history estoppel was designed to protect. The patentee does not surrender ground in amending the application in such a manner, as the scope of the invention is not disturbed. These decisions will force applicants to avoid reliance on the doctrine of equivalents, raise the cost of patenting, increase reliance on multiple independent claims while decreasing the use of dependent claims, make the patenting process more time consuming, and lead applicants to increasingly appeal rejections. In sum, the decisions in *Deering* and *Honeywell* are just another step toward dissolving the doctrine of equivalents and the protections it provides.

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