

THE AFTERMATH OF *FESTO V. SMC*: IS THERE “SOME OTHER REASON” FOR JUSTIFYING THE THIRD *FESTO* REBUTTAL CRITERION?

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INTRODUCTION

The importance of technological innovation is one of the driving forces behind the U.S. patent system.¹ The patent laws encourage this innovation and create an incentive to invent by granting a time-limited right to exclude to those inventors who fulfill the requirements for patent protection.² Generally, in exchange for public disclosure of the invention, a patent grants the patentee the right to prevent others from making, using, selling, or offering to sell the patented invention in the United States or from importing it into the United States for a term of twenty years from the date a patent application was filed.³ Under the U.S. patent system, the lure of obtaining a monopoly on a commercially profitable invention induces research, development, and, ultimately, progress in the form of new technology.⁴ In theory, because inventors would be unable to recoup the time, money, and resources they invested in discovering and developing the invention, invention and technical innovation would come to a halt without the benefit of this limited monopoly.⁵

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1. See *Mazer v. Stein*, 347 U.S. 201, 219 (1954).

2. The United States Constitution gives Congress the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. CONST. art. I, § 8, cl. 8.

3. 35 U.S.C. §§ 154(a)(1)–(2) (2000); see also *id.* § 271(a) (“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.”). The term of the patent begins on the date that the patent issues and ends twenty years from the date that the patent application was filed in the United States. *Id.* § 154(a)(2).

4. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974).

5. Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 994 (1997) (“In a private market economy, individuals will not invest in invention or creation

However, in order to promote such technological progress and create an incentive to invent, the patent system must enable efficient investment.⁶ Inventors will be less likely to invest their time and money in creation and invention without the confidence that a patent will effectively protect their right to exclude and, thus, their ability to recoup their initial investment.⁷ Conversely, competing inventors will be less likely to invest if they are unsure that their work does not overlap with the patented invention or device of another.⁸ While the difference between these two statements seems subtle, they reflect two very important functions of the patent system: the protective function and the notice function.

The notice function mandates that, in exchange for the limited monopoly of a patent, inventors must disclose their inventions to the public in “full, clear, concise, and exact terms.”⁹ Patents notify the public of what subject matter is not claimed and therefore provide guideposts to subsequent improvers as to what will and will not infringe.¹⁰ By announcing to the public what he owns and what he does not, the patentee has notified the public as to which areas are open for innovation.¹¹ The protective function of a patent is embodied in the right to exclude others from the market of the patented invention.¹² This constitutional mandate simply codifies the idea that, before an inventor will feel comfortable presenting her invention to the public in exchange for the monopoly of a patent, she must be assured that a patent will adequately protect her from potential infringers.¹³

unless the expected return from doing so exceeds the cost of doing so—that is, unless they can reasonably expect to make a profit from the endeavor.”).

6. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VIII)*, 535 U.S. 722, 730–31 (2002).

7. See Lemley, *supra* note 5, at 994.

8. See generally *id.* at 994–1000; see also *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150 (1989) (“[T]he purposes behind the Patent Clause are best served by free competition and exploitation of either that which is already available to the public or that which may be readily discerned from publicly available material.”).

9. The first paragraph of 35 U.S.C. § 112 provides that

[t]he 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.

35 U.S.C. § 112, para. 1 (2000).

10. *McClain v. Ortmyer*, 141 U.S. 419, 424 (1891). A patentee must define claims with specificity “not only to secure to him all to which he is entitled, but to apprise the public of what is still open to them.” *Id.*

11. *Id.*

12. *Bloomer v. McQuewan*, 55 U.S. (14 How.) 539, 549 (1852).

13. See *id.* The other option for inventors is to maintain their inventions as trade secrets. This does not require the extensive public disclosure of the invention that is required by the patent system.

In 2002, the Supreme Court in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.* (“*Festo VIII*”) acknowledged the necessity of protecting a patentee’s rights while still providing notice to the public of what is covered by the patent.¹⁴ Keeping these ideals in mind, the Court nobly set out to clarify the scope of two important, yet troublesome doctrines of the patent laws—the doctrine of equivalents and prosecution¹⁵ history estoppel. Unfortunately, the Court’s decision did not alleviate much of the tension between these two doctrines and may have even exacerbated the problem. In its attempt to restore balance between the protective and notice functions, the Court created a new presumption for determining when the doctrine of equivalents would apply and when prosecution history estoppel would bar its use. The Court defined three possible methods for patentees to rebut its new presumption, the third of which will be the focus of this Note.

This Note will argue that the third rebuttal criterion set out in *Festo VIII* greatly diminishes the notice function of patents by elevating the doctrine of equivalents above prosecution history estoppel and greatly favoring protecting patentees over providing notice to the public. Part I of this Note first details the general state of the law with respect to the doctrine of equivalents and prosecution history estoppel, without discussing those changes made by the *Festo* line of cases. Part II outlines the relevant procedural history of the *Festo* line of cases and provides significant detail to the *Festo VI*, *VIII*, and *IX* cases. Lastly, Part III contends that the Supreme Court should limit the third rebuttal criterion to those situations where the shortcomings of language prevented the patentee from adequately describing the equivalent in question. To realize this conclusion, Part III will analyze how the Supreme Court chose and justified the three rebuttal criteria and how cases since *Festo VIII* have interpreted and applied the third rebuttal criterion. This suggestion also is premised on the notion that the protective and notice functions of patent law can only be preserved by limiting the third rebuttal criterion in this way.

14. 535 U.S. 722, 737–40 (2002) (reversing the Federal Circuit’s decision to adopt a complete bar rule, which prevented the patentee from claiming equivalency under the doctrine of equivalents when prosecution history estoppel applied, and instead, adopting a new rebuttable presumption rule).

15. The process of drafting the patent application is called “preparation,” and the subsequent paper exchange with the Patent and Trademark Office including filing the application is called “prosecution.” From the practitioner’s perspective, the entire application process is called, colloquially, “prep and pros.” STEVEN A. BECKER, PATENT APPLICATIONS HANDBOOK § 1:1 (15th ed. 2006).

I. THE DOCTRINE OF EQUIVALENTS AND PROSECUTION HISTORY ESTOPPEL

The claims¹⁶ of a patent define the scope of the patent owner's right to exclude others from making, using, selling, offering to sell, or importing the protected invention.¹⁷ For this reason, the language of the claims is scrutinized intensely in analyzing both the validity of the patent and whether it has been infringed.¹⁸ Limiting the scope of a patent to the literal language of the claims helps to preserve the notice function of the patent laws by clearly announcing to the public the boundaries of the protected subject matter.

However, describing an invention through the use of mere words can be a taxing request.¹⁹ Because language is naturally ambiguous, and because a patentable invention is, by definition, something that does not already exist in the art, there are times when language cannot capture the essence of an invention.²⁰ This imperfect fit might allow a pirating copyist

16. An applicant for a patent must include in the specification accompanying the application for the patent "one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, para. 2 (2000). Patent claims define the invention for the purpose of applying the conditions of patentability, i.e., eligible subject matter, originality, novelty, utility, and non-obviousness; the statutory bars; and the disclosure requirements. The claims also define the invention for the purpose of determining infringement, i.e., what constitutes the process or thing that may not be made, used, or sold in the United States without the permission of the patent owner. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970, 976 (Fed. Cir. 1995). The Supreme Court has likened patent claims to the description of real property in a deed "which sets the bounds to the grant which it contains." *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 510 (1917).

17. 35 U.S.C. § 154(a)(1) ("Every patent shall contain . . . 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 . . .").

18. *Markman*, 52 F.3d at 976 ("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. It is the first step, commonly known as claim construction or interpretation, that is at issue in this appeal." (citations and footnotes omitted)).

19. See *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 397 (Ct. Cl. 1967). This is especially true if it is a pioneering invention. See Brief of the Institute of Electrical and Electronics Engineers—United States of America as Amicus Curiae at 5–6, *Festo VIII*, 535 U.S. 722 (No. 00-1543), 2001 WL 1025309 [hereinafter Brief of IEEE] ("A pioneering invention can be defined as something that performs a function never before performed—a wholly novel device, or one of such novelty and importance as to mark a distinct step in the progress of the art By comparison, technological improvements are useful, though often minor, advances over the previously existing technology." (citation omitted)). As one can imagine, the more novel the invention, the more likely it is that the inventor will have difficulty adequately describing it in words.

20. *Festo VIII*, 535 U.S. at 731 ("The language in the patent claims may not capture every nuance of the invention or describe with complete precision the range of its novelty."); see also Matthew J. Conigliaro, Andrew C. Greenberg & Mark A. Lemley, *Foreseeability in Patent Law*, 16 BERKELEY TECH. L.J. 1045, 1057 (2001) ("Because the language of claims can never perfectly describe an invention or anticipate all the ways in which it might be modified, effective patent protection often requires claims to be read more broadly than their literal language would permit." (footnote omitted)).

to make some insubstantial change to the patented invention in order to escape the literal wording of the claims, while still maintaining its spirit and essential functions.²¹ Therefore, effective patent protection often requires claims to be read more broadly than their literal language would permit.²² Yet, by allowing a court to expand the scope of the patent beyond what lies on the face of the claims, the patent document itself may not put the public on notice of what is still in the public domain. All of these concerns lie at the heart of the conflict between the doctrine of equivalents and prosecution history estoppel.

A. *The Doctrine of Equivalents*

While it is important to remember that a patent represents a property right “and like any property right, its boundaries should be clear,”²³ restricting the patent to the subject matter literally contained within the claims can turn a patent into “a hollow and useless thing.”²⁴ A patent would provide little protection to the patentee if the patent laws allowed an accused infringer to avoid infringement by making insubstantial changes to the patented invention or by using the ambiguity of language to avoid the literal scope of the claims.²⁵ For these reasons, while never actually calling it by name, the Supreme Court in *Winans v. Denmead* adopted the doctrine of equivalents in 1853 to preserve the protective function of patents.²⁶

Unlike literal infringement, which requires that the accused product or process come completely within the terms of an asserted patent claim,²⁷ infringement under the doctrine of equivalents does not put the patentee at the “mercy of verbalism.”²⁸ This doctrine recognizes that, in order to adequately protect a patentee, a court may sometimes extend the scope of the

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

22. See *id.* (recognizing that holding a patentee to the literal language of the claims would provide for an inequitable result—allowing others to essentially copy the patentee’s invention by incorporating only insubstantial changes).

23. *Festo VIII*, 535 U.S. at 730.

24. *Graver Tank*, 339 U.S. at 607; see also *Festo VIII*, 535 U.S. at 731.

25. *Winans v. Denmead*, 56 U.S. (15 How.) 330, 342–43 (1853). “[T]he property of inventors would be valueless, if it were enough for the defendant to say, your improvement consisted in a change of form; you describe and claim but one form; I have not taken that, and so have not infringed.” *Id.* The exclusive right conveyed in the patent would be useless if it did not protect the patentee from such “fraud on the patent.” *Graver Tank*, 339 U.S. at 608.

26. *Winans*, 56 U.S. (15 How.) at 343.

27. *Litton Systems, Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1454 (Fed. Cir. 1998) (“Literal infringement requires that the accused device contain each limitation of the claim exactly; any deviation from the claim precludes a finding of literal infringement.”).

28. *Graver Tank*, 339 U.S. at 607.

patentee's right to exclude beyond the literal boundaries of the claim.²⁹ The Court in *Winans* recognized that while one purpose of the patent laws is to encourage innovation, creation, and the pursuit of "new ideas beyond the inventor's exclusive rights,"³⁰ another is to protect the proprietary interest of the inventor.³¹ Thus, under the doctrine of equivalents, the scope of a patent is not limited to what lies on its face, but instead embraces all equivalents to the claims described therein.³²

Equitable in nature, the doctrine of equivalents prevents an accused infringer from avoiding liability for infringement by making trivial alterations or changes to the patented invention while still retaining the spirit of the invention.³³ While these changes would take the accused infringer outside of the literal scope of the patent claims, the doctrine of equivalents allows the patentee to claim these insubstantial alterations that are not found within the claim language.³⁴ If the patentee were precluded from asserting those equivalents, the accused infringer could steal the benefit of a patented invention without incurring the initial costs borne by the patentee.³⁵

29. The Court in *Winans v. Denmead* expressed that merely "changing of form" of an invention already known to the public is not deserving of a patent. 56 U.S. (15 How.) at 330. However, if such a change of form were to bring about a "new mode of operation, and thus attain a new and useful result," then it would be worthy of patent protection. *Id.* In order to preserve these principles, the Court felt that a patent should grant the inventor protection over all forms of his invention which effectuate the result claimed in the patent:

It is generally true, when a patentee describes a machine, and then claims it as described, that he is understood to intend to claim, and does by law actually cover, not only the precise forms he has described, but all other forms which embody his invention; it being a familiar rule that, to copy the principle or mode of operation described, is an infringement, although such copy should be totally unlike the original in form or proportions

....

It is not sufficient to distinguish this case to say, that here the invention consists in a change of form, and the patentee has claimed one form only.

Id. at 342.

30. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VIII)*, 535 U.S. 722, 731 (2002) (citing *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150 (1989)).

31. *Winans*, 56 U.S. (15 How.) at 343. In *Winans*, the Court held that a person "has no right whatever to take . . . a leaf out of his neighbor's book," *id.* at 334, and simply make "substantial copies of [a patented invention], varying its form or proportions" without falling subject to infringement. *Id.* at 343. The doctrine of equivalents is a judicially recognized method to protect patentees from pirating competitors. *Id.*

32. *Festo VIII*, 535 U.S. at 732; see also *Winans*, 56 U.S. (15 How.) at 343 (The patentee "[is] deemed to claim every form in which his invention may be copied, unless he manifests an intention to disclaim some of those forms.>").

33. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VI)*, 234 F.3d 558, 564 (Fed. Cir. 2000).

34. *Festo VIII*, 535 U.S. at 733. "The doctrine of equivalents 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." *Id.*

35. See *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 607-08 (1950).

The doctrine of equivalents provides that a product or process that does not literally infringe on a patented device may nevertheless infringe if the elements of the accused device are deemed equivalent to the claimed elements of the patented device.³⁶ In 1950, the Supreme Court in *Graver Tank & Manufacturing Co. v. Linde Air Products Co.* pronounced the test for equivalency under the doctrine of equivalents. The Court held that a patentee may invoke the doctrine of equivalents to proceed against the producer of an accusedly infringing device if it performs substantially the same function in substantially the same way to obtain substantially the same result.³⁷ This is known as the “function-way-result” test.

In order to foster innovation, the patent system must balance the patentee’s right to exclude with the public’s right to adequate notice of what is not protected by the patent, and thus still open for invention.³⁸ The doctrine of equivalents enhances the strength of a patent and fosters the protective function by giving the courts the flexibility to expand the patent’s scope beyond that of its literal terms.³⁹ However, broad application of the doctrine of equivalents can diminish the notice function of patents by preventing the public from being able to determine the scope of a patent *ex ante*.⁴⁰ Uncertainty in the range of equivalents may stifle new invention and innovation if competitors are unable to determine “what is a permitted alternative to a patented invention and what is an infringing equivalent.”⁴¹ Prosecution history alleviates some of the uncertainty caused by the doctrine of equivalents by allowing the public to use the prosecution history, the public record of all proceedings before the United States Patent and

36. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997); *Graver Tank*, 339 U.S. at 609.

37. *Graver Tank*, 339 U.S. at 608–09; *see also Warner-Jenkinson*, 520 U.S. at 39–40 (noting that the “insubstantial differences” test may also be used to determine equivalence); *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1518 (Fed. Cir. 1995) (arguing that the function-way-result test is not the only way of determining equivalence). Additionally, equivalence must be determined based on the totality of the circumstances surrounding the case at hand. *Graver Tank*, 339 U.S. at 609 (“What constitutes equivalency must be determined against the context of the patent, the prior art, and the particular circumstances of the case. Equivalence, in the patent law, is not the prisoner of a formula and is not an absolute to be considered in a vacuum.”).

38. Conigliaro et al., *supra* note 20, at 1049.

39. *See Graver Tank*, 339 U.S. at 607; *see also Conigliaro et al.*, *supra* note 20, at 1056 (“In the context of the doctrine of equivalents, the law best promotes progress by the careful balancing of dynamic protection for the patentee and clear notice to the public of what products will infringe the patent. Each of these patent functions is fundamental, and it is only by their harmonious interplay that patent law can encourage both technological improvements and pioneering inventions.”).

40. *Warner-Jenkinson*, 520 U.S. at 29 (“There can be no denying that the doctrine of equivalents, when applied broadly, conflicts with the definitional and public-notice functions of the statutory claiming requirement.”).

41. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VIII)*, 535 U.S. 722, 727 (2002).

Trademark Office (“the PTO”), to anticipate the scope of potential equivalents.⁴²

B. *Prosecution History Estoppel*

The doctrine of prosecution history estoppel mandates that a patent be construed not only in the light of its claims but also with reference to the prosecution history.⁴³ One of the public policy principles underlying the doctrine is that it allows other players in the marketplace to rely on the public record of the patent prosecution to determine the meaning and scope of the patent.⁴⁴ Essentially, prosecution history estoppel limits the doctrine of equivalents by preventing a patentee from arguing equivalence with respect to subject matter the patentee surrendered during prosecution of the patent.⁴⁵ While the doctrine of equivalents allows the patentee to expand the scope of a patent to cover unclaimed equivalents, prosecution history estoppel precludes the patentee from regaining through litigation any subject matter relinquished during prosecution of the patent.⁴⁶

Prosecution history estoppel only bars a patentee from recapturing that subject matter actually surrendered during prosecution of the patent.⁴⁷ This rule ensures that the doctrine remains tied to its underlying purpose: public notice. If the patentee has not expressly or impliedly disclaimed any subject matter during the prosecution of the patent, then the public will have no

42. See *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 398 (Ct. Cl. 1967). A patent’s prosecution history is also sometimes referred to as its file wrapper, and thus prosecution history can also be referred to as file wrapper estoppel.

43. *Festo VIII*, 535 U.S. at 733; see also *Autogiro*, 384 F.2d at 398 (“The [prosecution history] contains the entire record of the proceedings in the Patent Office from the first application papers to the issued patent. Since all express representations of the patent applicant made to induce a patent grant are in the [prosecution history], this material provides an accurate charting of the patent’s pre-issuance history.”).

44. *White v. Dunbar*, 119 U.S. 47, 51–52 (1886). In *White v. Dunbar*, the patentee originally obtained a patent for a process of preserving shrimp and other shellfish by lining the inside of a can with a coating of asphaltum cement and then with paper coated with a solution of paraffine. The can was then filled with shrimp, sealed, and subjected to a boiling or steaming process, in the usual manner of canning vegetables and meats. *Id.* at 47–48. However, some time later, the patentee surrendered this original patent, and applied for a reissue. The new patent claimed a similar process, except that the shrimp was instead wrapped in a textile lining, and then placed in an uncoated can. The Court held that such a change was “tantamount to a declaration that [the patentees had] claimed nothing else,” and that the public had a right to rely on such a declaration. *Id.* at 51; see also *Festo VIII*, 535 U.S. at 727.

45. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VI)*, 234 F.3d 558, 564 (Fed. Cir. 2000) (quoting *Pharmacia & Upjohn Co. v. Mylan Pharm., Inc.*, 170 F.3d 1373, 1376 (Fed. Cir. 1999)).

46. *Id.*

47. *Litton Systems, Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1455 (Fed. Cir. 1998); *Hughes Aircraft Co. v. United States (Hughes II)*, 140 F.3d 1470, 1476 (Fed. Cir. 1998) (“In evaluating the reason behind an amendment, a court must determine what subject matter the patentee actually surrendered.”).

reason to believe that the patentee has relinquished any equivalents.⁴⁸ Yet if during the prosecution of the patent, the patentee represented that the scope of the patent did not cover the equivalents in question, the public could reasonably rely on this representation. The patentee would then be estopped from attempting to reclaim this subject matter.⁴⁹ However, it is often a daunting task to determine what subject matter the patentee actually surrendered, and thus, what the scope of prosecution history estoppel will be in barring the patentee from reclaiming the equivalents in question.⁵⁰ To determine whether subject matter has been relinquished, a court may look to whether one of ordinary skill in the art would objectively conclude from the prosecution history that an applicant surrendered it.⁵¹

C. Interaction Between the Two Doctrines

The intersection of prosecution history estoppel and the doctrine of equivalents arises most often when a patentee amends his patent claims in response to a rejection of an earlier version of his patent application by the PTO. By deciding to narrow a claim element in the face of a rejection by the PTO rather than appeal the decision of the examiner, the patentee is conceding that the invention as patented does not reach as far as the original claim.⁵² The crux of prosecution history estoppel is that, when the patentee knowingly claims the subject matter alleged to infringe under the doctrine of equivalents, but then narrows the claim in response to a rejection, he may not argue that the surrendered territory comprises unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent. Because the doctrine of equivalents is premised on the shortcomings of language, when a prior patent application actually describes the precise element at issue and the patentee knowingly removes this language from a claim in order to obtain a patent, he should be estopped from trying

48. See *Hughes Aircraft Co. v. United States (Hughes I)*, 717 F.2d 1351, 1362 (Fed. Cir. 1983).

49. *Id.* (“The doctrine of prosecution history estoppel precludes a patent owner from obtaining a claim construction that would resurrect subject matter surrendered during prosecution of his patent application.”); see also *Festo VI*, 234 F.3d at 564–65 (“The logic of prosecution history estoppel is that the patentee, during prosecution, has created a record that fairly notifies the public that the patentee has surrendered the right to claim particular matter as within the reach of the patent.”).

50. This issue is actually the main focus of this Note and will be discussed in much more detail below when I discuss *Warner-Jenkinson* and the *Festo* line of cases. Here, I only intend to give some very general remarks to orient the reader and lead into the next section.

51. *Honeywell*, 140 F.3d at 1462.

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

to recapture in an infringement action the very subject matter surrendered as a condition of receiving the patent.⁵³

From the inception of both of these doctrines, courts have grappled with the task of maintaining a balance between the protective and notice functions of the patent laws. The courts that dealt with the *Festo* line of cases were not immune from this objective and often found themselves at the center of the conflict.

II. BACKGROUND OF *FESTO V. SMC*

The *Festo* line of cases began in 1988 when Festo sued Shoketsu Kinzoku Kogyo Kabushiki Co. Ltd. (“SMC”) in the Federal District Court of Massachusetts for infringement of United States Patents 4,354,125 (the “Stoll patent”) and 3,779,401 (the “Carroll patent”).⁵⁴ The patents related to magnetically coupled rodless cylinders composed of a cylinder, a piston, and a sleeve.⁵⁵ Both patents were amended during prosecution to add prior art references⁵⁶ and a new limitation that the inventions contain “a pair of resilient sealing rings,” each having a lip on one side.⁵⁷ In addition, the Stoll patent was amended to include a limitation that the sleeve be made of a magnetizable material.⁵⁸ The district court entertained summary judgment motions from both parties on the issues of infringement and validity,⁵⁹ but ultimately denied all summary judgment motions except Festo’s motion for summary judgment of infringement of the Carroll patent.⁶⁰ Ultimately, the district court granted partial summary judgment, holding that SMC’s accused device infringed claims 5, 6, and 9 of the Carroll patent under the

53. *Honeywell*, 140 F.3d at 1462 (holding that when an applicant narrows a claim element in the face of an examiner’s rejection based on the prior art, the doctrine estops the applicant from later asserting that the claim covers, through the doctrine of equivalents, features that the applicant amended his claim to avoid).

54. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo I)*, No. Civ.A. 88-1814-MA, 1993 WL 1510657 (D. Mass. Apr. 27, 1993).

55. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VI)*, 234 F.3d 558, 579 (Fed. Cir. 2000).

56. Prior art is any

documentary and non-documentary sources used to determine the novelty and nonobviousness of a claimed invention in a patent application. Documentary sources include printed publications, published patents, technical papers, and the like, available anywhere in the world. Non-documentary sources include activities such as a public knowledge, use, sale or offer for sale in the United States. Prior art must be dated or in existence prior to the applicant’s date of invention or, in the case of statutory bars, more than one year prior to the filing date of the patent application.

BECKER, *supra* note 15, at app. cc.

57. *Festo VIII*, 535 U.S. at 728; *Festo I*, 1993 WL 1510657, at *4.

58. *Festo VIII*, 535 U.S. at 728.

59. *Festo I*, 1993 WL 1510657, at *2.

60. *Id.* at *27.

doctrine of equivalents.⁶¹ Additionally, a jury found both patents were not invalid and that SMC's accused device infringed claim 1 of the Stoll patent under the doctrine of equivalents.⁶²

On appeal, the Federal Circuit affirmed these decisions.⁶³ The Supreme Court subsequently vacated the Federal Circuit's decision and remanded the case in light of its intervening decision in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*⁶⁴ On remand, the Court of Appeals for the Federal Circuit initially affirmed in part, vacated in part, and remanded,⁶⁵ but the Federal Circuit ordered a rehearing en banc to resolve certain issues relating to the doctrine of equivalents that remained in the wake of the Supreme Court's decision in *Warner-Jenkinson*.⁶⁶

The Court in *Warner-Jenkinson* set out to clarify the function and scope of the doctrine of equivalents.⁶⁷ While the Court overwhelmingly acknowledged the importance of maintaining the doctrine of equivalents and refused to speak the death of it as *Warner-Jenkinson* invited,⁶⁸ it con-

61. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo IX)*, 344 F.3d 1359, 1364 (Fed. Cir. 2003).

62. *Id.*; *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VI)*, 234 F.3d 558, 585 (Fed. Cir. 2000).

63. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo II)*, 72 F.3d 857 (Fed. Cir. 1995).

64. *Shoketsu Kinzoku Kogyo Kabushiki Co. v. Festo Corp. (Festo III)*, 520 U.S. 1111 (1997); *see also Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997).

65. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo IV)*, 172 F.3d 1361 (Fed. Cir. 1999).

66. *Festo VI*, 234 F.3d at 563.

67. *Warner-Jenkinson*, 520 U.S. at 21.

68. *Warner-Jenkinson* argued that Congress had impliedly negated the doctrine, as set out in *Graver Tank* in 1950, when it revised the Patent Act in 1952. *Id.* at 25. Petitioner gave four specific reasons why the doctrine of equivalents was inconsistent with the Patent Act of 1952 and, thus, did not survive the 1952 revision:

(1) The doctrine of equivalents is inconsistent with the statutory requirement that a patentee specifically "claim" the invention covered by a patent, § 112; (2) the doctrine circumvents the patent reissue process—designed to correct mistakes in drafting or the like—and avoids the express limitations on that process, §§ 251–252; (3) the doctrine is inconsistent with the primacy of the Patent and Trademark Office (PTO) in setting the scope of a patent through the patent prosecution process; and (4) the doctrine was implicitly rejected as a general matter by Congress' specific and limited inclusion of the doctrine in one section regarding "means" claiming, § 112, ¶ 6.

Id. at 25–26. Quite to the contrary, the Court declined this offer to do away with the doctrine and overwhelmingly reinforced the necessity of the doctrine. *Id.* at 28. The Court also rejected *Warner-Jenkinson's* argument for a "rigid rule invoking an estoppel regardless of the reasons for a change," *id.* at 32; refused to "require judicial exploration of the equities of a case before allowing application of the doctrine of equivalents," *id.* at 34; refused to require "proof of intent" on the part of the alleged infringer before the doctrine of equivalents could be applied, *id.* at 35; and refused to adopt "independent experimentation" as "an equitable defense to the doctrine of equivalents," *id.* The Court noted that, as it is a judge-made rule, Congress could have directly legislated the doctrine of equivalents out of existence at any time and could have easily done so when revising the Patent Act. *Id.* at 28. However, absent some concrete showing of Congress's intent to negate the doctrine, the Court unwaveringly refused to do so especially in light of the doctrine's lengthy history. *Id.*

ceded that a robust application of the doctrine can undermine the public notice function of a patent.⁶⁹ To alleviate some of this tension, the Court identified one means of limiting the application of the doctrine of equivalents. The Court clarified that equivalency under the doctrine of equivalents refers to equivalency of an element or part of the claimed invention, not to equivalency of the claimed invention as a whole.⁷⁰

By drawing this distinction, the Court adopted what is known as the all-elements or all-limitations rule. Under this rule, the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole.⁷¹ In order to find equivalency under the doctrine, the patentee must show the presence of every element or its substantial equivalent in the accused device.⁷² Furthermore, under the all-elements rule the doctrine of equivalents cannot be used, even as to an individual element, in a matter that would wholly vitiate a limitation contained in a patent claim.⁷³

The Court also recognized that prosecution history estoppel plays a significant role in limiting the scope of the doctrine of equivalents.⁷⁴ However, the Court did not believe, as Warner-Jenkinson did, that an estoppel would arise due to any surrender of subject matter during patent prosecution regardless of the applicant's reason for such surrender.⁷⁵ According to the Court, an applicant's reason for amendment during patent prosecution is very relevant to determining whether prosecution history estoppel applies, and thus whether it can limit the application of the doctrine of equivalents.⁷⁶ While the Court noted that it had most often applied prosecution history estoppel only where claims had been amended for a limited set of reasons, such as where the applicant amended its claims to overcome the prior art, it refused to adopt the rule "invoking an estoppel regardless of the reasons for [amendment]."⁷⁷

69. *Id.* at 29.

70. *Id.*

71. *Id.*

72. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 935 (Fed. Cir. 1987). Also, "each element of a claim is material and essential" to defining the scope of the patented invention. *Id.* "To be a 'substantial equivalent,' the element substituted in the accused device for the element set forth in the claim must not be such as would substantially change the way in which the function of the claimed invention is performed." *Id.* (citation omitted). The essential inquiry is whether "the accused product or process contain[s] elements identical or equivalent to each claimed element of the patented invention." *Warner-Jenkinson*, 520 U.S. at 40.

73. *Warner-Jenkinson*, 520 U.S. at 29.

74. The Court agreed that "*Graver Tank* did not dispose of prosecution history estoppel as a legal limitation on the doctrine of equivalents." *Id.* at 30.

75. *Id.*

76. *Id.* at 30-31.

77. *Id.* at 32.

One of the most important decisions of the Court dealt with the situation where the record does not reveal the patentee's reason for making an amendment. In order to protect the role of the claims in defining an invention and providing public notice, the Court held that the patentee bears the burden of establishing its reason for making an amendment.⁷⁸ When the patentee cannot establish an explanation for making the amendment, the Court held that it will presume that it was made for a substantial reason related to patentability.⁷⁹ This is known as the *Warner-Jenkinson* presumption. Lastly, the Court held that if the patentee cannot rebut the presumption, prosecution history estoppel will apply and will bar the application of the doctrine of equivalents to that claim element.⁸⁰ This last rule became a significant point of controversy in the *Festo* decisions. Other than in the case of unexplained amendments, the Court did not speak on the range of equivalents available to a patentee after prosecution history estoppel applies.

In *Festo VI*, the Federal Circuit's en banc decision following *Warner-Jenkinson*, the Federal Circuit first addressed the situations in which a claim amendment gives rise to prosecution history estoppel. Generally, prosecution history estoppel arises when the patentee made a narrowing amendment for a substantial reason related to patentability.⁸¹ The court held that such a reason is not limited to amendments made to overcome or avoid prior art as discussed in *Warner-Jenkinson*.⁸² An amendment made for any reason relating to the statutory requirements for obtaining a patent⁸³ will give rise to prosecution history estoppel with respect to the amended claim element.⁸⁴ The court specifically stated that this can include narrowing amendments made to satisfy any requirement of the Patent Act, includ-

78. *Id.* at 33.

79. *Id.*

80. *Id.*

81. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VI)*, 234 F.3d 558, 566 (Fed. Cir. 2000) (quoting *Warner-Jenkinson*, 520 U.S. at 33 (holding that prosecution history estoppel arises when an amendment is made for a "substantial reason related to patentability")).

82. *Id.* at 566.

83. The court gave several examples of some of the statutory requirements that must be satisfied before a valid patent can issue and that thus relate to patentability. For example, the novelty and non-obviousness requirements of 35 U.S.C. §§ 102 and 103; the requirement that the claims be directed to patentable subject matter; the utility requirement of 35 U.S.C. § 101; and the requirement of the first paragraph of 35 U.S.C. § 112 that the patent specification describe, enable, and set forth the best mode of carrying out the invention. *Festo VI*, 234 F.3d at 566.

84. The court noted that a prosecution history estoppel may also arise based on the patentee's arguments made before the PTO if they evidence a clear and unmistakable surrender of subject matter. *Festo VI*, 234 F.3d at 568. While argument-based estoppel will not be discussed further in this Note, it is relevant in that it illustrates that the main inquiry in prosecution history estoppel is whether the patentee has actually surrendered the subject matter in question.

ing § 112, or a “voluntary” amendment,⁸⁵ i.e., one neither required by a patent examiner nor made in response to a rejection by an examiner for a stated reason.⁸⁶

At the crux of its decision in *Festo VI*, the court addressed what range of equivalents, if any, would be available under the doctrine of equivalents if a claim amendment creates prosecution history estoppel. This issue was first addressed in *Hughes Aircraft Co. v. United States* (“*Hughes I*”) when the Federal Circuit adopted the “flexible bar” rule.⁸⁷ In *Hughes I*, the court refused to adopt a “wooden application of estoppel” in which virtually any claim amendment would bar the patentee from resorting to the doctrine of equivalents.⁸⁸ Instead, the court held that based on the subject matter surrendered by the amendment, a patentee may still claim some range of equivalents for that subject matter, with the available spectrum of equivalents ranging “from great to small to zero.”⁸⁹ The court advocated a flexible, case-by-case analysis in which the “nature and purpose” of the amendment and the exact subject matter surrendered by the patentee would determine the range of equivalents open to the patentee.⁹⁰

While recognizing that most cases since *Hughes I* applied this “flexible bar” rule, the *Festo VI* court noted that in *Kinzenbaw v. Deere & Co.*,⁹¹ decided less than a year after *Hughes I*, the Federal Circuit took a strict approach to determining the range of equivalents available when prosecution history estoppel applied.⁹² Because the Federal Circuit had never repudiated *Kinzenbaw*, the court felt it was unclear which line of authority a court would use in any given case, and therefore, with “its special expertise,”⁹³ it set out to reconcile the two conflicting lines of authority.⁹⁴ Seemingly contrary to a great amount of precedent following *Hughes I*, the court followed *Kinzenbaw* and held that when prosecution history estoppel ap-

85. The court, in holding so, reasoned that “[t]here is no reason why prosecution history estoppel should arise if the Patent Office rejects a claim because it believes the claim to be unpatentable, but not arise if the applicant amends a claim because he believes the claim to be unpatentable.” *Id.*

86. *Id.* In *Festo IX*, the Federal Circuit held that the Supreme Court’s decision in *Festo VIII* did not upset these holdings and reinstated them. 344 F.3d 1359, 1366 (Fed. Cir. 2003).

87. See 717 F.2d 1351, 1362–63 (Fed. Cir. 1983).

88. *Id.* at 1362.

89. “Depending on the nature and purpose of an amendment, it may have a limiting effect within a spectrum ranging from great to small to zero.” *Id.* at 1363.

90. *Id.*

91. 741 F.2d 383 (Fed. Cir. 1984).

92. *Id.* at 389, discussed in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VI)*, 234 F.3d 558, 572–73 (Fed. Cir. 2000).

93. *Festo VI*, 234 F.3d at 572 (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997)).

94. See *id.* at 573–74.

plies, the patentee is completely barred from claiming any equivalents in the entire territory between the original claim limitation and the amended claim, thus rejecting the flexible bar approach.⁹⁵

The court noted several problems with the flexible bar approach. First, the court reasoned that the flexible bar approach did not promote certainty in patent law. The court explained that from an adjudicator's perspective, it was unclear how to apply the rule and, therefore, use of the flexible bar rule did not produce consistent results.⁹⁶ Because there are no clear or systematic criteria for determining what equivalents are surrendered when a patent claim is amended, the flexible bar rule is "unworkable."⁹⁷ Furthermore, because it is "virtually impossible to predict before [a judicial decision] where the line of surrender is drawn," a future inventor would have no way of reliably determining what equivalents the patentee might claim.⁹⁸ Second, the court felt that the flexible bar approach did not serve to enforce the disclaimer effect of a narrowing claim amendment.⁹⁹ The flexible bar approach might allow a patentee to reclaim subject matter discarded through a narrowing amendment.¹⁰⁰ Last, the flexible bar approach did not preserve the notice function of patent claims.¹⁰¹ When it is uncertain what range of equivalents is preserved after prosecution, allowing some range of equivalents does not put the public on notice of whether prosecution history estoppel arises as to any claim element.¹⁰²

On the other hand, the complete bar rule directly comports with these three fundamental objectives of patent law by construing amendments strictly against the patentee and by putting both the patentee and the public on notice as to the scope of protection provided by a claim element.¹⁰³ According to the court, by eliminating the public's need to speculate as to the subject matter surrendered when prosecution history estoppel arises and

95. *Id.* at 574. Interestingly enough, as the IEEE points out in its Brief of Amicus Curiae, the court in *Kinzenbaw* "made no mention of overruling *Hughes*, and the flexible bar of *Hughes* became the dominant line of Federal Circuit authority—until *Festo* [VI]." Brief of IEEE, *supra* note 19, at 15. IEEE, advocating for a foreseeability standard in the application of prosecution history estoppel, argued that "*Kinzenbaw* plainly suggested that, if the particular limiting effect created by the patentee's amendments to the patent's claim language had been unforeseeable, the doctrine of equivalents would still have been available to the patentee." *Id.* at 20. Thus, according to IEEE, *Kinzenbaw* does not actually stand for a complete bar rule as the Federal Circuit claims it does.

96. *Festo* VI, 234 F.3d at 575.

97. *Id.*

98. *Id.*

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.* at 576.

103. *Id.*

by putting the public on notice of the range of available equivalents, the complete bar rule will promote technological advancements by eliminating the risk of infringement claims.¹⁰⁴ By using the complete bar rule, the risk of infringement will be easier to determine and, therefore, “[t]he public will be free to improve on the patented technology and design around it without being inhibited by the threat of a lawsuit.”¹⁰⁵ Additionally, the court noted that by adding certainty to the process of determining the scope of protection afforded a patent, patentees will not need to resort to litigation to “ascertain[] the true scope and value of the patent.”¹⁰⁶ While the court noted that the complete bar rule offered less protection to patentees, it felt that the benefits of certainty outweighed the costs to patentees.¹⁰⁷

Because the Federal Circuit’s en banc decision radically altered the interaction between prosecution history estoppel and the doctrine of equivalents, the Supreme Court granted certiorari to address the relation between the doctrine of equivalents and the rule of prosecution history estoppel.¹⁰⁸ In *Festo VIII*, Justice Kennedy, speaking for a unanimous Court, overturned the Federal Circuit’s complete bar rule and held that an amendment is not an absolute bar to a claim of infringement under the doctrine of equivalents.¹⁰⁹ Instead, the Court established a presumption—known now as the *Festo* presumption—that a narrowing amendment made for a reason related to patentability surrenders the particular subject matter in question.¹¹⁰ The patentee may, however, rebut the presumption by showing 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.”¹¹¹

A patentee may establish that the narrowing amendments did not surrender the particular equivalent in question and thus rebut the *Festo* presumption by showing that (1) the equivalent was unforeseeable at the time of the application; (2) the rationale underlying the amendment bears no more than a tangential relation to the equivalent in question; or (3) there is some other reason suggesting that the patentee could not be reasonably expected to have described the insubstantial substitute in question.¹¹² These

104. *Id.* at 577; Conigliaro et al., *supra* note 20, at 1062.

105. *Festo VI*, 234 F.3d at 577.

106. *Id.*

107. *Id.* at 578.

108. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VII)*, 533 U.S. 915 (2001).

109. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VIII)*, 535 U.S. 722, 737 (2002).

110. *Id.* at 740.

111. *Id.* at 741.

112. *Id.* at 740–41.

three rebuttal criteria, and in particular the third, are the focus of this Note. While the Court was attempting to protect the proprietary rights of the patentee in making the third rebuttal criterion a “catch-all” of sorts, as will be discussed more below, this has grave implications for the notice function of the patent laws.

In *Festo VIII*, the Court attempted to address both the uncertainty of the flexible bar rule and the apparent injustice to patentees of the complete bar rule. The Court attempted to balance the notice and the protective functions of patent law at the intersection of prosecution history estoppel and the doctrine of equivalents. Several considerations led the Court to overturn the decision of the Federal Circuit and adopt this new method for determining the range of equivalents available to a patentee after making a narrowing amendment related to patentability.

Above all, the Court relied heavily on the fundamental principles underlying the doctrine of equivalents and the patent laws in general. In order to maintain the balance between the public notice and protective functions of the patent laws, inventors are required to describe their work in “full, clear, concise, and exact terms.”¹¹³ Without this clarity, would-be inventors will be unable to discern where the patentee’s rights end, and where the subject matter left open to the public begins.¹¹⁴ However, the Court recognized that describing an invention through the use of mere words has its shortcomings.¹¹⁵ The Court explained that, because of the nature of language, there are times when an inventor is unable to capture the essence of his invention or describe with complete precision the range of its novelty in a patent application.¹¹⁶ It was for these reasons that the Supreme Court in *Winans* adopted the doctrine of equivalents.¹¹⁷

Furthermore, according to the Court the language used to describe the claimed invention becomes no less ambiguous after the amendment than before.¹¹⁸ Therefore, while a patentee may concede that the amended claim is different from and does not reach as far as the original, this does not mean that the language used in the amended claim is so perfect as to make it impossible for a copyist to devise an equivalent.¹¹⁹ As a result, a rule that abolishes the doctrine of equivalents and holds the patentee to the literal

113. 35 U.S.C. § 112, para. 2 (2000).

114. *Festo VIII*, 535 U.S. at 730–31.

115. *Id.* at 731.

116. *Id.*

117. *Winans v. Denmead*, 56 U.S. (15 How.) 330, 343 (1853).

118. “After amendment, as before, language remains an imperfect fit for invention.” *Festo VIII*, 535 U.S. at 738.

119. *Id.*

terms of the patent makes no sense. By failing to inquire into the subject matter actually surrendered by the narrowing amendment, the Court deemed that the Federal Circuit's approach was "inconsistent with the purpose of applying the estoppel in the first place—to hold the inventor to the representations made during the application process and to the inferences that may reasonably be drawn from the amendment."¹²⁰

While the Court recognized that the doctrine of equivalents renders the scope of patents less certain, it nonetheless stressed the necessity of maintaining the doctrine. Furthermore, the Court noted that while the flexible bar may have been unworkable, the complete bar rule did not serve to protect the interest of the patentees. The doctrine of equivalents 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. Relying on *Warner-Jenkinson* for the notion that "equivalents remain a firmly entrenched part of the settled rights protected by the patent,"¹²¹ and other cases confirming the doctrine,¹²² the Court overturned the Federal Circuit's complete bar rule. While the Court's reasoning up to this point seems well founded in doctrine of equivalents and prosecution history estoppel jurisprudence, the basis for the *Festo* presumption is less clear.

III. ANALYSIS OF WHY AND HOW THE THIRD REBUTTAL CRITERION MUST BE LIMITED

The Supreme Court's decision in *Festo VIII* drastically changed how the courts and patent practitioners alike must approach cases implicating both the doctrine of equivalents and prosecution history estoppel.¹²³ While it has been almost four years since this significant decision, a number of important questions concerning the Court's formulation of the *Festo* presumption, and the third rebuttal criterion in particular, remain unanswered. For example, what types of "other reason[s]" would suggest that a patentee could not reasonably have been expected to have claimed the equivalent in question? What is the purpose of the third rebuttal criterion? Does this re-

120. *Id.* at 737–38.

121. *Id.* at 733.

122. *Id.* at 732 (citing *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 608 (1950); *Winans*, 56 U.S. (15 How.) at 342.

123. As stated by Donald Chisum, a leading scholar on patent law, "[i]t would be difficult to exaggerate the significance of *Festo* to the United States patent system." Donald S. Chisum, *The Supreme Court's Festo Decision: Implications for Patent Claim Scope and Other Issues*, CHISM ON PATENTS CASE REPORTER, June 2002, at 3, available at <http://www.lexisnexis.com/practiceareas/ip/pdfs/chisumfesto.pdf>.

buttal criterion adequately preserve both the protective and notice functions of patent law?

The ensuing analysis will attempt to resolve these questions and will demonstrate that the only way to preserve the third rebuttal criterion is to limit it to only those situations in which some shortcoming of language prevented the patentee from adequately claiming the equivalent in question. Part A of this analysis will discuss the Supreme Court's reasons for adopting the three criteria and where it found support for creating them. This information is critical to determining the purpose of the three rebuttal criteria and their respective functions as envisioned by the Court. Part B will survey subsequent cases interpreting and applying *Festo VIII*. Analyzing how the third rebuttal criterion has recently been used will shed light on why this criterion should be limited to the shortcomings of language. Finally, Part C will discuss the policy implications of the third rebuttal criterion as it was handed down by the Supreme Court. Discussing these considerations will ultimately lead to the conclusion that limiting the third rebuttal criterion will optimize both the protective and notice functions.

A. *Basis for the Supreme Court's Decision in Festo VIII*

Uncovering what the Supreme Court envisioned as the purpose of the three rebuttal criteria and how it justified them will lead to a better understanding of their respective functions and utility. Unfortunately, the Supreme Court did not expressly state why or how it formulated the *Festo* presumption or chose the three rebuttal criteria. Yet, by closely scrutinizing the Court's decision and looking to several key cases discussing the purposes of the doctrine of equivalents, one can hypothesize what laid the foundation for the presumption, the three rebuttal criteria, and the purpose that each criterion was to serve.

Most notably, in overturning the Federal Circuit's "complete bar" rule to prosecution history estoppel, the Supreme Court chose to adopt the presumption-rebuttal method advocated by the United States (the "Government") in its amicus brief.¹²⁴ The Government argued that while the flexible bar rule was "unsatisfactory," the complete bar promulgated by the Federal Circuit "does not comport with [the Supreme] Court's measured perspective in *Warner-Jenkinson* and fails to strike a sound balance be-

124. *Festo VIII*, 535 U.S. at 740. The Court stated that it agreed with the United States that the patentee should bear the burden of showing that an amendment does not surrender the particular equivalent in question. See Brief for the United States as Amicus Curiae at 23-24, *Festo VIII*, 535 U.S. 722 (No. 00-1543), 2001 WL 1025650 [hereinafter Brief for the U.S.].

tween certainty of patent scope and fair protection of patent rights.”¹²⁵ Instead, the Court should *presume* that a narrowing amendment bars a patentee from claiming any range of equivalents.¹²⁶ However, the patentee should be able to rebut this presumption by “showing a concrete basis . . . for extending the amended portion of the claim beyond its literal terms to encompass equivalent elements.”¹²⁷ In other words, the Government advocated that the patentee should bear the burden of showing that the narrowing amendment does not surrender the particular equivalent in question.¹²⁸

While clear support for how the Supreme Court devised the *Festo* presumption lies in the Government’s brief, support for the three rebuttal criterion can also be found in the Government’s brief, scattered across the pre-*Festo VIII* caselaw, and, by inference, within the Court’s decision itself.

1. Support for the First, “Unforeseeable,” Rebuttal Criterion

In its brief, the Government suggested two situations in which the patent holder could rebut the presumption of surrender. First, a patent holder should be allowed to assert infringement under the doctrine of equivalents if the assertedly equivalent element “did not exist and was not reasonably within the contemplation of the PTO and the applicant” at the time of amendment.¹²⁹ If the assertedly equivalent element in question was a technology that arose after the patent holder amended its claims, prosecution history estoppel should not bar the use of the doctrine of equivalents.¹³⁰ This follows from the Supreme Court’s endorsement in *Hughes I* that after-arising technologies can still fall within the range of equivalents allowed to a patentee who has amended its claims. The Court in *Festo VIII* seemingly molded this suggestion by the Government into the first, “unforeseeable,” rebuttal criterion.

125. Brief for the U.S., *supra* note 124, at 10.

126. *Id.*

127. *Id.*

128. *Festo VIII*, 535 U.S. at 740; *see also* Brief for the U.S., *supra* note 124, at 23 (“The patent holder rightly should bear the burden of demonstrating that the claim amendments preserve the type of equivalents at issue because the patent laws themselves require the patent applicant to define claims with specificity, 35 U.S.C. 112, ‘not only to secure to him all to which he is entitled, but to apprise the public of what is still open to them.’” (quoting *McClain v. Ortmyer*, 141 U.S. 419, 424 (1891))).

129. Brief for the U.S., *supra* note 124, at 25–26.

130. That is,

a patent holder should be allowed to assert that an accused device infringes under the doctrine of equivalents if the court finds that *the assertedly equivalent element is itself an innovation* that was not known to persons of ordinary skill in the art at the time the applicant amended the claim.

Id. at 25 (emphasis added).

Along with these arguments made by the Government, support for the unforeseeability criterion appears in cases where the equivalent element in question was an after-arising technology. These cases could have been an impetus for the Supreme Court to create the first rebuttal criterion. In *Warner-Jenkinson*, the Supreme Court rejected the argument that the doctrine of equivalents should be limited to equivalents that were known at the time the patent was issued and should not extend to after-arising equivalents.¹³¹ The Federal Circuit in *Hughes I* later explained that while an inventor is required to disclose the best mode known to him for practicing his invention,¹³² he is not charged with “predict[ing] all future developments which enable the practice of his invention in substantially the same way.”¹³³ The court felt it would be inequitable to allow a subsequent advance in technology not available to the patentee at the time of the amendment to fall outside of the scope of the patent’s protection.¹³⁴ The fact that such a later-developed technology may result in an insubstantial change in the way the claimed element in question performed its function supports the idea that the patentee should not be barred from claiming equivalency over equivalents arising out of later developed technology.¹³⁵ As a patentee cannot be expected to claim equivalent technology that has not yet been developed, after-arising technology presents clear support for the unforeseeability standard.

131. As Justice Thomas stated,

Inssofar as the question under the doctrine of equivalents is whether an accused element is equivalent to a claimed element, the proper time for evaluating equivalency—and thus knowledge of interchangeability between elements—is at the time of infringement, not at the time the patent was issued. And rejecting the milder version of petitioner’s argument necessarily rejects the more severe proposition that equivalents must not only be known, but must also be actually disclosed in the patent in order for such equivalents to infringe upon the patent.

Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 37 (1997).

132. 35 U.S.C. § 112, para. 1 (2000).

133. *Hughes Aircraft Co. v. United States (Hughes I)*, 717 F.2d 1351, 1362 (Fed. Cir. 1983).

134. See *Hughes Aircraft Co. v. United States (Hughes II)*, 140 F.3d 1470, 1475 (Fed. Cir. 1998); see also *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 938 (Fed. Cir. 1987) (“[L]ater developed computer technology . . . should be deemed within the scope of the claims to avoid the pirating of an invention.”).

135. For example, in *Hughes I*, the Federal Circuit found that

[a]dvanced computers and digital communications techniques developed since Williams permit doing on-board a *part* of what Williams taught as done on the ground. As one of our predecessor courts, the Court of Claims, has thrice made clear, that partial variation in technique, an embellishment made possible by post-Williams technology, does not allow the accused spacecraft to escape the “web of infringement.”

717 F.2d at 1365 (quoting *Bendix Corp. v. United States*, 600 F.2d 1364, 1382 (Ct. Cl. 1979)).

2. Support for the Second, “Tangential Relation,” Rebuttal Criterion

As support for the second, “tangential relation,” criterion, the Supreme Court may have turned to *Hughes I*, which contemplated that prosecution history estoppel should not bar a patentee from asserting equivalents when the reason for amendment is unrelated to the equivalent in question. The particular facts of that case are illustrative of this scenario. Hughes Aircraft asserted that several NASA satellites infringed its patent covering satellite altitude control technology. In the plaintiff’s system, the satellite transmitted reference position information to Earth, enabling a ground crew to calculate the satellite’s spin rate, sun angle, and instantaneous spin angle (“ISA”) position, i.e., “the measure of where the satellite is in its spin cycle at any instant of time.”¹³⁶ After calculating the ISA position, the ground crew then transmitted firing signals to a jet on the satellite, causing it to fire immediately and adjust the altitude of the satellite.

As distinct from the plaintiff’s invention, a computer housed on the NASA spacecraft received the reference position information, calculated the spin rate, and transmitted it to the ground crew along with sufficient information for calculating the sun angle. The ground crew did not know and did not need to know the ISA position in order to control the altitude of the spacecraft. Because of this distinction, the court held that there was no literal infringement. Under the doctrine of equivalents, the plaintiff claimed that the defendant’s computer-aided altitude control system was equivalent to its patented invention. However, the defendant asserted that prosecution history estoppel barred use of the doctrine of equivalents because the plaintiff had made narrowing amendments to its claims to distinguish its invention over a space vehicle utilizing similar technology patented by McLean.¹³⁷ In response to the rejection, the plaintiff amended its claims to distinguish its invention over that of McLean.

The Federal Circuit held that prosecution history estoppel did not bar the plaintiff from asserting that the NASA spacecraft infringed under the doctrine of equivalents. In making this decision, the court stated that “[the plaintiff’s] amendment of the claims *did not relate to* any disclosure, in the prior art or elsewhere, in which the ISA position was stored in a computer”¹³⁸ The plaintiff’s reason for amending its claims was to distinguish the McLean patent, not to disavow claim scope relating to computer

136. *Id.* at 1360.

137. Specifically, the examiner rejected the plaintiff’s original claims as unpatentable in light of a prior invention disclosed in the McLean patent. The McLean satellite was self-guided and had a self-contained altitude control system. *Id.* at 1354.

138. *Id.* at 1363 (emphasis added).

technology, and therefore the court found it unnecessary to bar the plaintiff from utilizing the doctrine of equivalents. This reasoning laid the groundwork for the tangential relation rebuttal criterion promulgated by the Supreme Court. In *Festo VIII*, the Court seemingly agreed with the holding of *Hughes I* that when the asserted equivalent is only peripherally related to the reason for amendment, use of the doctrine of equivalents should not be foreclosed.¹³⁹

3. Support for the Third, “Some Other Reason,” Rebuttal Criterion

In its brief, the Government also suggested that a patent holder could rebut the presumption of surrender by establishing that, “owing to the nature of the subject matter at issue, it was not possible for one of ordinary skill in the art to draft a claim amendment that literally encompassed the allegedly equivalent element while disclaiming the surrendered subject matter.”¹⁴⁰ The Government explained that the foundation of the doctrine of equivalents lies in the idea that limiting a patent claim’s scope to its literal interpretation offers little protection to the patentee.¹⁴¹ Recognizing instances where “literal terms” may be inadequate to “reasonably describe all of the insubstantial substitutes” for an element of a claimed invention, it argued that patentees should not be completely precluded from using the doctrine of equivalents to defend their proprietary interests.¹⁴² The impetus behind this reasoning was the idea that in some cases, mere words may not be able to adequately describe the patentee’s invention, especially if the subject matter of the invention is particularly novel.¹⁴³ According to the Government, the patentee should not be precluded from asserting equivalents under the doctrine of equivalents if the shortcomings of language prevented it from adequately claiming the equivalent in question.

While the Supreme Court’s explanation for the three rebuttal criteria is sparse, the language used by the Government most resembled that of the

139. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VIII)*, 535 U.S. 722, 740 (2002).

140. Brief for the U.S., *supra* note 124, at 26.

141. “The doctrine of equivalents arose from concerns that the ‘unsparing logic’ of literalism can deny the patent holder fair patent protection.” *Id.* at 26 (quoting *Royal Typewriter Co. v. Remington Rand, Inc.*, 168 F.2d 691, 692 (2d Cir. 1948) (Hand, J.)).

142. *Id.* at 26.

143. “Given the versatility of language, patent holders will face a substantial obstacle in overcoming the presumption that their narrowed claims encompass no more than they literally embrace. But that challenge would not be insurmountable if the technology is complex or the alleged distinctions are trivial.” *Id.* at 27.

Court in promulgating the third rebuttal criterion.¹⁴⁴ Also, as the Government seemingly accounted for unforeseeable equivalents in the first situation discussed, and as nothing it discussed shows any support for the tangential relation criterion, it is reasonable to deduce that the Court molded this second situation posed by the Government into its third rebuttal criterion. More importantly, assuming that the Supreme Court did indeed adopt the Government's argument, it is also reasonable to believe that the Court envisioned the third rebuttal criterion as a way to protect the patentee from the inability of mere words to describe particularly novel and pioneering inventions.

In deciding to breathe life back into the doctrine of equivalents and strike down the complete bar rule promulgated by the Federal Circuit, the Supreme Court in *Festo VIII* discussed in detail how the shortcomings of language provide the foundation for the doctrine.¹⁴⁵ The Court noted that the purpose of the doctrine of equivalents is to protect patentees from copyists who may attempt to evade the literal scope of a patent by exploiting the ambiguity and imprecision of the language chosen by the patentee to claim its invention.¹⁴⁶ While literalism may render the scope of patents more certain, the Court stated that the doctrine of equivalents is necessary to protect patentees and to ensure the appropriate incentives for innovation.¹⁴⁷ According to the Court, the very doctrine is "premised on language's inability to capture the essence of innovation."¹⁴⁸

Along with the foundation laid by the Government, the Supreme Court also had many past cases dealing with the doctrine of equivalents and prosecution history estoppel to guide its decision. Citing *Autogiro Co. of America v. United States*, the Court discussed why the doctrine of equivalents is important to protect the patentee from unscrupulous copyists. Because words are by their nature ambiguous,¹⁴⁹ "the phrasing of a document . . . seldom attains more than approximate precision."¹⁵⁰ Since the ability to verbalize the outer boundaries of one's invention is critical to the patent laws, this imprecision of language creates a significant challenge

144. "[T]here may be some other reason suggesting that the patentee could not *reasonably* be expected to have *described the insubstantial substitute* in question." *Festo VIII*, 535 U.S. at 740–41 (emphasis added).

145. *See id.* at 731–33.

146. *See id.*

147. *Id.* at 732–33.

148. *Id.* at 734.

149. "The very nature of words would make a clear and unambiguous claim a rare occurrence." *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 396 (Ct. Cl. 1967).

150. *Id.* (quoting Felix Frankfurter, *Some Reflections on the Reading of Statutes*, 47 COLUM. L. REV. 527, 528 (1947)).

for patent applicants.¹⁵¹ Impressing upon the Supreme Court the extreme difficulty faced by patentees to describe their invention in written words, the court in *Autogiro* powerfully stated that

[a]n invention exists most importantly as a tangible structure or a series of drawings. A verbal portrayal is usually an afterthought written to satisfy the requirements of patent law. This conversion of machine to words allows for unintended idea gaps which cannot be satisfactorily filled. Often the invention is novel and words do not exist to describe it. The dictionary does not always keep abreast of the inventor. It cannot. Things are not made for the sake of words, but words for things.¹⁵²

For these reasons, the Supreme Court reaffirmed the importance of the doctrine of equivalents to protect patentees from the dangers of literalism.

Conclusively, the Government's brief and relevant case law provide firm support for the first two rebuttal criteria laid out by the Supreme Court in *Festo VIII*. It is clear that the Supreme Court envisioned some instances, other than when the asserted equivalent was unforeseeable at the time of the amendment or when the asserted equivalent was only tangentially related to the patentee's reason for amending its claims, in which a patentee could not reasonably be expected to have described the equivalent element in question. However, without searching every case in which a patentee asserted infringement under the doctrine of equivalents and determining which cases might not have been taken into account under the first two rebuttal criteria, it is difficult to know what situations the Court believed fell under the regime of the third rebuttal criterion. By drawing some conclusions based on precedent and what the Court discussed as the most basic support for the doctrine of equivalents, it seems that the shortcomings of language are the most appropriate "other reason" that a patentee would be unable to describe the alleged equivalent in question.

While it is reasonable at this point to assume that the Court considered the shortcomings of language to fall under the third rebuttal criterion, the Court's opinion on its own is not enough to support limiting the third rebuttal criterion to this situation exclusively. Analyzing the post-*Festo VIII* case law provides additional support.

B. Cases Applying the Festo Presumption

The first and most influential case to interpret and apply the Supreme Court's decision in *Festo VIII* was *Festo IX*, the Federal Circuit's decision on remand to determine whether Festo could demonstrate that its narrowing

151. *Id.* at 397.

152. *Id.*

amendments did not surrender the particular equivalents in question.¹⁵³ In *Festo IX*, the Federal Circuit first clarified the interplay between the *Festo* and *Warner-Jenkinson* presumptions.¹⁵⁴ The court also provided general guidance for applying the three rebuttal criteria established in *Festo VIII*.

In *Festo VI*, the court held that if a patentee is unable to rebut the *Warner-Jenkinson* presumption, prosecution history estoppel completely bars the patentee from claiming any range of equivalents for an amended claim element.¹⁵⁵ However, in light of *Festo VIII*, the Federal Circuit in *Festo IX* held that an unexplained amendment, which gives rise to a prosecution history estoppel under *Warner-Jenkinson* should be treated like any other narrowing amendment made for a reason related to patentability.¹⁵⁶ “A patentee is now entitled to rebut the presumption that an ‘unexplained’ narrowing amendment surrendered the entire territory between the original and the amended claim limitations.”¹⁵⁷

The Federal Circuit’s interpretation of the three rebuttal criteria laid the groundwork for all subsequent cases involving the doctrine of equivalents where prosecution history estoppel applies. First, the court stated that the first rebuttal criterion, unforeseeability, is an objective inquiry and is assessed at the time of the amendment.¹⁵⁸ In explaining the first rebuttal criterion, the court specifically endorsed later-developed technology and technology that was not known in the relevant art as being unforeseeable equivalents.¹⁵⁹ Conversely, an alleged equivalent is foreseeable if it was known in the prior art in the field of the invention at the time of the amendment.¹⁶⁰ Second, the court further explained that the second criterion

153. *Festo VIII*, 535 U.S. at 741–42.

154. Specifically, the Federal Circuit on remand asked the parties to brief the following issues:

1. Whether rebuttal of the presumption of surrender, including issues of foreseeability, tangentialness, or reasonable expectations of those skilled in the art, is a question of law or one of fact; and what role a jury should play in determining whether a patent owner can rebut the presumption.
2. What factors are encompassed by the criteria set forth by the Supreme Court.
3. If a rebuttal determination requires factual findings, then whether, in this case, remand to the district court is necessary to determine whether *Festo* can rebut the presumption that any narrowing amendment surrendered the equivalent now asserted, or whether the record as it now stands is sufficient to make those determinations.
4. If remand to the district court is not necessary, then whether *Festo* can rebut the presumption that any narrowing amendment surrendered the equivalent now asserted.

Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo IX), 344 F.3d 1359, 1365–66 (Fed. Cir. 2003).

155. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. (Festo VI)*, 234 F.3d 558, 578 (Fed. Cir. 2000).

156. *Festo IX*, 344 F.3d at 1366 (noting that “a patentee’s failure to overcome the *Warner-Jenkinson* presumption gives rise to the new *Festo* presumption of surrender”).

157. *Id.*

158. *Id.* at 1369.

159. *Id.*

160. *Id.*

requires an inquiry into “whether the reason for the narrowing amendment was peripheral, or not directly relevant, to the alleged equivalent.”¹⁶¹ This inquiry “focuses on the patentee’s objectively apparent reason for the narrowing amendment” and on the context in which the amendment was made.¹⁶²

Last, the court held that the scope of the “vague” third criterion must be applied narrowly.¹⁶³ Relying on similar reasoning as the Supreme Court in *Festo VIII*, the court stated that one method to rebut the *Festo* presumption under the third criterion would to argue that the ambiguity or imprecision of language prevented the patentee from claiming the equivalent in question when the claim was narrowed.¹⁶⁴ The court qualified this statement by holding that if the alleged equivalent is in the prior art, the patentee would have been able to describe the equivalent in question, and therefore, may not rely on the third rebuttal criterion.¹⁶⁵ Additionally, the court limited the inquiry to what is contained in the prosecution history.¹⁶⁶

While the court recognized that the scope of the third rebuttal criterion must be limited, it did not explicitly demarcate how narrowly it must be applied. In fact, the court refused to speculate on or provide an exhaustive list of the type of circumstances that might satisfy the third criterion.¹⁶⁷ It is telling, however, that the court did speak of the imprecision of language as one method of rebutting the presumption under the third criterion. It may be reasonable to assume that the Federal Circuit only spoke of this method because it simply could not foresee any other arguments that a patentee could tender that, in its view, would satisfy the third rebuttal criterion. It may also be reasonable to assume that the Federal Circuit felt that allowing a patentee to rebut the third criterion with this argument aligned best with the purpose of the doctrine of equivalents as a whole. Throughout the history of the doctrine, the idea that shortcomings of language act to diminish

161. *Id.* The court specifically noted that “an amendment made to avoid prior art that contains the equivalent in question is not tangential; it is central to allowance of the claim.” *Id.*

162. *Id.* at 1369–70. The court noted that the patentee’s objective reasoning in making an amendment and the particular context surrounding the amendment should be discernable from the prosecution history. Therefore, courts should only consider the prosecution history when determining whether a patentee has established a merely tangential reason for a narrowing amendment. *Id.*

163. *Id.* at 1370.

164. The court stated that “the third criterion *may* be satisfied” in this manner. *Id.* (emphasis added). This suggests that while the court did not contemplate any other methods for satisfying the third criterion, this was simply one way of doing so.

165. *Id.*

166. *Id.*

167. “Because we cannot anticipate all of the circumstances in which a patentee might rebut the presumption of surrender, we believe that discussion of the relevant factors encompassed by each of the rebuttal criteria is best left to development on a case-by-case basis.” *Id.* at 1368.

the patentee's right to exclude was a touchstone in the policies underlying the doctrine.

Ultimately, the Federal Circuit determined that for both the sealing ring and magnetizable sleeve limitations, *Festo* could not rebut the presumption of surrender under the third rebuttal criterion.¹⁶⁸ For both limitations, *Festo* argued that the patentees could not reasonably have been expected to have drafted claims covering the equivalents in question because they were "inferior and unacceptable design[s]."¹⁶⁹ Curiously, in rejecting the plaintiff's arguments for rebuttal under the third criterion, the court seemed to base its decision on the grounds that "there was no linguistic or 'other' limitation" to prevent the patentee from describing the equivalent in question.¹⁷⁰ This strongly suggests that the only method the court contemplated for rebutting the third criterion was to argue that some shortcoming of language prevented the patentee from literally claiming the equivalent in question.

The cases following and interpreting *Festo IX* also support limiting the use of the third rebuttal criterion to situations arising out of the ambiguity of language. Since *Festo IX*, few patentees have argued to rebut the *Festo* presumption under the third criterion. Even fewer have been successful.¹⁷¹

168. *Id.* at 1370–73. Additionally, the court determined that for the sealing ring limitation of both the Stoll and Carroll patents, *Festo* could not rebut the presumption of surrender under the second criterion. The court similarly determined that for the magnetizable sleeve equivalent, *Festo* could not rebut the presumption of surrender under either the "tangential" or "some other reason" criteria. However, the court held that factual issues remained as to whether a person of ordinary skill in the art would have thought an aluminum sleeve was an objectively unforeseeable equivalent of a magnetizable sleeve and whether a single two-way sealing ring was an objectively unforeseeable equivalent of two one-way sealing rings located at each end of the piston. The court remanded to the district court to resolve these issues of fact. *Id.*

169. *Id.* at 1372.

170. *Id.* Even more telling is the actual language the court uses to transition into this quoted phrase. For the magnetizable sleeve limitation, after summarizing *Festo*'s argument for rebuttal under the third criterion, the court dismissed it on the grounds that it actually suggested that the patentee could have described the equivalent but chose not to. The court then stated that "[i]n any event, it seems clear that there was no linguistic or 'other' limitation to prevent [the patentee] from describing the accused equivalent," *id.* (emphasis added), suggesting that this is an even stronger reason for holding that *Festo* could not rebut the presumption. For the sealing ring limitation, the court in the same fashion and for the same reason dismissed *Festo*'s argument for rebuttal by stating, "More to the point, it cannot be said that there was a linguistic or 'other' limitation preventing [the patentees] from describing the equivalent in question, especially where, as here, the difference between the claimed limitation and the accused equivalent is principally a difference in quantity." *Id.* at 1373 (emphasis added). This strong language suggests that the ultimate way to rebut the third rebuttal criterion is to argue for a shortcoming of language.

171. In one case, the plaintiff was actually successful in rebutting the *Festo* presumption under the third criterion by arguing a reason other than the shortcomings of language. In *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, the plaintiff successfully argued under the third rebuttal criterion it could not have reasonably been expected to describe the equivalent in question "because competitors and those skilled in the art would have interpreted the amendment, at the time it was made, actually to cover the equivalent." 287 F. Supp. 2d 126, 156–57 (D. Mass. 2003).

One possible explanation for this phenomenon is that the patentees simply were not making the right arguments. For example, in both *Biagro Western Sales, Inc. v. Grow More, Inc.*¹⁷² and *Talbert Fuel Systems Patents Co. v. Unocal Corp.*,¹⁷³ the Federal Circuit rejected the plaintiffs' arguments under the third rebuttal criterion, holding that the plaintiffs were attempting to reargue claim construction issues. The patentee in *Abbott Laboratories v. Baxter Pharmaceutical Products, Inc.* unsuccessfully argued under the third rebuttal criterion that it was unable to describe the equivalents in question because there "would not be sufficient space to list them all" in the claims.¹⁷⁴ In *Medtronic Navigation, Inc. v. Brainlab Medizinische Computersystems GMBH*, the patentee unsuccessfully asserted under the third criterion that he was unable to describe the equivalent in question because it was not "commercially available to him at the time he filed his patent application."¹⁷⁵

Adding even more support, while most of the post-*Festo IX* cases recognized the Federal Circuit's proposition that the ambiguity of language was one method of rebutting the third criterion, the United States Court of Federal Claims in *Masco Corp. v. United States*¹⁷⁶ seemed to treat it as the *only* acceptable "other reason" for failing to literally describe the asserted equivalent. The court held that the plaintiff did not rebut the *Festo* presumption under the third rebuttal criterion because it "did not establish that a precise vocabulary did not exist at the time of the drafting."¹⁷⁷ The court

172. 423 F.3d 1296, 1307 (Fed. Cir. 2005). In *Biagro*, the Federal Circuit held that the patentee had presumptively surrendered any equivalents with respect to the amount of phosphorous-containing acid or salt present in fertilizer described in its patent by making a narrowing amendment during reexamination that added a claim limitation requiring phosphorous-containing acid or salt to be "present in an amount of about 30 to about 40 weight percent." *Id.* at 1305–06. *Biagro* attempted to rebut the *Festo* presumption under the third criterion by arguing that it understood the claim language to refer to a chemically equivalent amount of phosphorous acid. The court rejected *Biagro's* contention as "merely an attempt to reargue the claim construction issue." *Id.* at 1307.

173. 347 F.3d 1355, 1360 (Fed. Cir. 2003). In *Talbert*, the plaintiff claimed infringement of its United States Patent No. 5,015,356 (the "'356 patent") under the doctrine of equivalents. However, during prosecution of its '356 patent for carbureted gasoline, the plaintiff limited the claims to a gasoline boiling point range of 121° F to 345° F. *Id.* at 1358. Unocal produced a carbureted gasoline that boiled above 345° F. The court held that the amendment of the *Talbert* claims to a boiling point upper limit of 345° F was a presumptive surrender of gasolines boiling above that limit, and thus presumed that prosecution history estoppel prevented *Talbert* from attempting to reclaim that subject matter through the doctrine of equivalents. *Id.* at 1359. Attempting to rebut the *Festo* presumption under the third criterion, the plaintiff argued that the claims contained an "unnecessarily exact boiling limit." *Id.* at 1360. The court stated that it was "without power to make such a correction." *Id.* ("Courts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth." (quoting *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 396 (Ct. Cl. 1967))).

174. No. 01 C 1867, 2005 WL 2347221, at *16 (N.D. Ill. Sept. 22, 2005).

175. 417 F. Supp. 2d 1188, 1197 (D. Colo. 2006).

176. 56 Fed. Cl. 400 (2003).

177. *Id.* at 412.

went on to point out that “[n]o subtlety of language or complexity of the technology” would have rendered the patentee unable to literally describe the equivalent in question.¹⁷⁸ Notably, patentees were most successful in rebutting the third rebuttal criterion when they asserted that the shortcomings of language prevented them from describing the equivalent in question.¹⁷⁹

It logically follows from these post-*Festo IX* cases that the imprecision of language should be the only acceptable reason for rebutting the *Festo* presumption under the third criterion. First, as demonstrated by the *Biagro* and *Talbert* cases, limiting the third criterion in this manner will prevent patentees from resurrecting past issues and arguments, such as claim construction, during the *Festo* presumption phase of the litigation. Second, by giving patentees a definite method for approaching the third rebuttal criterion, it is possible that more will attempt to argue it, and will argue it successfully. Third, as will be discussed more below, the third rebuttal criterion must be limited in order to restore balance between the notice and protective functions. As courts are most receptive to the argument that some shortcoming of language prevented the patentee from describing the asserted equivalent, this is the most logical way to limit the third criterion.

C. *Effect on the Protective and Notice Functions*

As discussed above, the doctrines of equivalents and prosecution history estoppel are in constant tension. In order to effectuate the constitutional command to promote the useful arts, these doctrines must be enforced in a manner that balances patent law’s protective and notice functions.¹⁸⁰ Tipping the scale in favor of either the protective function or the notice function “directly affects the incentives, and disincentives, to innovate.”¹⁸¹ If the protective function is overemphasized through broad appli-

178. *Id.* at 413 (emphasis omitted) (quoting *Sage Products, Inc. v. Devon Industries, Inc.*, 126 F.3d 1420, 1425 (Fed. Cir. 1997)).

179. *See, e.g., Liquid Dynamics Corp. v. Vaughan Co.*, No. 01 C 6934, 2004 WL 2260626, at *14 (N.D. Ill. Oct. 1, 2004) (finding the third *Festo* criterion rebutted under the shortcomings of language theory because it would have been “impossible for the inventors to describe all teacup-countering helical flows that might result from changing certain variables”).

180. *See* Brief of IEEE, *supra* note 19, at 10–12; *see also* Lemley, *supra* note 5, at 1006 (“It should be obvious from the foregoing discussion that one cannot avoid patent infringement merely by building something different than what the patentee has built (or even described). Subsequent developers of products must be careful to avoid treading on the literal language of the patent claims, whether or not the patentee envisioned the particular device at issue. Further, subsequent developers must attempt to guarantee that a jury will not find their product to be insubstantially different from the patent claim language. Even subsequently developed products that unquestionably improve on the work of the original inventor may infringe the inventor’s patent.”).

181. *See* Brief of IEEE, *supra* note 19, at 11.

cation of the doctrine of equivalents, “patentees receive exclusivity beyond the literal language of their patents’ claims, but inventors have less notice of an existing patent’s scope.”¹⁸² By sacrificing the notice function in favor of protecting the patentee, the outer boundaries of the patented invention blur, thus discouraging third-party inventors from improving upon the patented technology due to the risk of infringement under the doctrine of equivalents.

Conversely, if prosecution history estoppel is used to severely limit the use of the doctrine of equivalents, the notice function will be at its strongest. By applying a strict, literal interpretation of the patent’s claims, the patent will offer little protection to the patentee against “insubstantial modifications that amount to little more than a fraud on the patent.”¹⁸³ While inventors holding patentable inventions may have some peace of mind that modestly modified devices will not infringe, the incentive to invest in pioneering inventions is greatly diminished, due to “would-be inventors’ concerns that their rights will be immediately diluted in the marketplace by competitors who have made, at best, insubstantial changes and, at worst, mere copies.”¹⁸⁴

The two previous methods of addressing prosecution history estoppel—the flexible bar and the complete bar—represent these two extremes. On the one hand, the flexible bar rule sacrifices the public notice function of the patent laws and thus, inhibits innovation by making it impossible for would-be inventors to know *ex ante* what the patentee might claim as an equivalent. On the other hand, the complete bar rule sacrifices the protective function by prohibiting patentees from using the doctrine of equivalents to claim potentially infringing insubstantial substitutes once they have amended their claims.

Thus, only a careful balance of the notice and protective functions will optimally encourage invention and innovation. The third “some other reason” criterion laid out by the Supreme Court in *Festo VIII* seriously skews this balance in favor of protecting patentees. In fact, by allowing a patentee to argue that some other reason prevented it from adequately describing the equivalent in question, the Court essentially restored the flexible bar rule. As the Court gave no guidance as to what this “some other reason” could be, courts will again be required to make a case-by-case analysis every time a patentee attempts to rebut the *Festo* presumption under the third criterion. This severely sacrifices the notice function by making it almost impossible

182. *Id.*

183. *Id.*

184. *Id.* at 11–12.

for a would-be inventor, attempting to design around the patented invention, to determine *ex ante* this “other reason.” In order to realign the balance of the notice and protective functions, the third “some other reason” criterion of the *Festo* presumption must be narrowed in scope.

As discussed above, it is reasonable to assume that the Court in *Festo VIII* adopted the “some other reason” criterion to take into account the main reason that the doctrine of equivalents exists: language is ambiguous and it is not very easy to describe novel technology. Furthermore, the only inkling we get from the Supreme Court and the Federal Circuit as to what could possibly count as “some other reason” comes from both courts’ heavy reliance on the shortcomings of language as one of the main policy reasons for upholding the doctrine. Lastly, looking to the cases which apply the third criterion, the only plaintiffs that were successful in rebutting the *Festo* presumption at the district court level were those who claimed the shortcomings of language as the reason they could not have described the equivalent in question. For these reasons, limiting the third criterion to situations in which some shortcoming of language prevented the patentee from claiming the asserted equivalent is the most logical choice.

Conversely, some scholars in this area argue that the *Festo* presumption is a complete bar by another name.¹⁸⁵ It has already proved to be difficult for patentees to rebut the *Festo* presumption, so by narrowing the third criterion even further, it will be even harder for patentees to utilize the doctrine of equivalents to protect their proprietary interests.¹⁸⁶ However, it is arguable that because the third criterion as it stands is so vague, patent practitioners and patentees have been too confused to even utilize it. Besides the mere suggestion given by the Federal Circuit to use the ambiguity of language to rebut the presumption under the third criterion, patent practitioners have little to draw on in determining what “other reason[s]” will rebut the *Festo* presumption. It is also arguable that if the Supreme Court were to limit the criterion to the shortcomings of language, practitioners would be more likely to argue under this criterion if they were given clear guidelines of what it takes to do so. This criterion’s utility will only in-

185. The Supreme Court in *Festo VIII* did not think that it was creating such a harsh standard. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.* (*Festo VIII*), 535 U.S. 722, 741 (2002) (“This presumption is not, then, just the complete bar by another name. Rather, it reflects the fact that the interpretation of the patent must begin with its literal claims, and the prosecution history is relevant to construing those claims.”). *But see* Mark D. Sharp, *Festo X: The Complete Bar by Another Name?*, 19 BERKELEY TECH. L.J. 111 (2004).

186. The Federal Circuit has only found the *Festo* presumption rebutted once in *Instituform Technologies, Inc. v. Cat Contracting, Inc.*, 385 F.3d 1360, 1370 (Fed. Cir. 2004), via the tangential relation criterion.

crease if it is made less vague and more understandable for patent practitioners.

Along the same lines, it is also not hard to believe that judges will be more receptive to an argument that strikes to the core of the policy behind the doctrine of equivalents. Since the doctrine is founded on the idea that when inventors patent their new creation, words may not exist to adequately describe such novel technology, it is logical to believe, as the Federal Circuit in *Festo IX* may have, that this may be the most successful way to rebut the third criterion. As the court stated in *Autogiro*, “[t]he dictionary does not always keep abreast of the inventor,”¹⁸⁷ and judges might be more willing to allow a patentee to assert infringement under the doctrine of equivalents for this reason.

Overall, tying the use of the third criterion to the ambiguity of language would foster both the notice and protective functions of the patent. By making the third criterion more accessible to patent practitioners and more attainable in the eyes of the law, it provides further protection to patentees. On the other hand, this limitation would make the use of the doctrine of equivalents more predictable *ex ante*. Rather than with the broad, “some other reason” criterion, competitors will be able to better predict what might count as an equivalent under the doctrine of equivalents.

CONCLUSION

The preceding analysis directs that the third rebuttal criterion should be restricted to situations where the ambiguity of language prevented the patentee from claiming the equivalent in question. While the Federal Circuit directed that *one* way a patentee may rebut the *Festo* presumption under the third criterion is by arguing that the shortcomings of language prevented the patentee from adequately describing the equivalent in question, this Note argues that this should be the *only* way. The groundwork for this assertion comes from the Supreme Court’s *Festo VIII* decision itself. While the Court’s explanation is sparse, it supports the idea that one of the main underpinnings of the doctrine of equivalents is to protect patentees from copyists using the ambiguity of language to circumvent the literal scope of a patent. This assertion is also supported by the policy concerns surrounding the very vague and broad third rebuttal criterion, which direct that innovation will suffer greatly if the interests of the patentee and the public are not brought back into balance.

187. *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 397 (Ct. Cl. 1967).