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Festo to the Rescue?

BY R. FLYNT STREAN*

INTRODUCTION

It is a theme that pervades intellectual property law: the balance between protecting rights and providing information. In the patent realm, one side of the balance provides the patent owner with the ability to exclude others from making, using, or selling a patented invention. The other side of the balance provides the public with detailed information that describes the invention. Patenting serves as an incentive for an inventor to

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See, e.g., White v. Samsung Elec. Am., Inc., 989 F.2d 1512, 1516 (9th Cir. 1993) (Kozinski, J., dissenting). Judge Kozinski, in his dissent, summarizes the balance as it applies to many facets of intellectual property:

This is why intellectual property law is full of careful balances between what's set aside for the owner and what's left in the public domain for the rest of us: The relatively short life of patents; the longer, but finite, life of copyrights; copyright's idea-expression dichotomy; the fair use doctrine; the prohibition on copyrighting facts; the compulsory license of television broadcasts and musical compositions; federal preemption of overbroad state intellectual property laws; the nominative use doctrine in trademark law; the right to make soundalike recordings. All of these diminish an intellectual property owner's rights. All let the public use something created by someone else. But all are necessary to maintain a free environment in which creative genius can flourish.

Id.

2 See 35 U.S.C. § 271(a) (2002). The power to exclude is implicit in the power to bring a patent infringement action. Id. ("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.").

3 See 35 U.S.C. §§ 111-113 (2002). Section 111 describes the general elements of a patent application, which include a specification as described in section 112 and a drawing as described in Section 113. These details are also included in the
protect his or her idea from exploitation by others, but it also enlightens the public with novel information. If an inventor wishes not to patent his or her invention, the alternatives could result in substantial economic risk. The effect on the public is even more certain since the information will not be available to further the wealth of collective technical knowledge.

Patenting an invention, however, will not guarantee certain wealth; there is also no guarantee that an aggressive competitor will not enter the market. The extent of protection under a patent is based on the interpretation of the internal technical descriptions of the patent. These are somewhat like the technical descriptions that designate the location and boundaries of a tract of land. However, because patent descriptions are interpreted, the boundaries become malleable. Therefore, competitors may search for weak areas of the boundary in order to circumvent the presumed protection of the patent and compete in the market.

In determining the meaning of these boundaries, courts apply two balancing doctrines. One gives more protection to a patent owner than he or she literally claimed—effectively allowing the property boundary to bulge out. The other removes protection that could exist—effectively pushing the boundary inward. These doctrines, recently reviewed by the Supreme Court in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., are "the doctrine of equivalents" and "prosecution history estoppel," respectively.4

Part I of this Note discusses the background of the patent law system and describes some key concepts considered by the Supreme Court in Festo. In particular, descriptions of the doctrine of equivalents and prosecution history estoppel are given.5 Part II of the Note focuses on the law as it existed prior to Festo, and as it was described in Warner-Jenkinson Co. v. Hilton Davis Chemical Co.6 Parts III and IV of the Note examine the Festo decision in light of the Warner-Jenkinson standard and explore the effect of the changes to the patent process that were proposed in the case.7 Finally, in Part V, the Note introduces a novel suggestion to restoring balance to the patent law system in the form of a new designation that could be added to the current patent law prosecution system.8

5 See infra notes 9-39 and accompanying text.
6 Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17 (1997); see also infra notes 40-60 and accompanying text.
7 See infra notes 61-109 and accompanying text.
8 See infra notes 110-14 and accompanying text.
I. BACKGROUND

A. Overall Goals of Intellectual Property Protection

The authority given to Congress to promote patent protection is received directly from Article I, section 8, clause 8 of the U.S. Constitution. This power, upon which many industries and economies have been built, is implemented in Title 35 of the United States Code, otherwise known as the Patent Act. In general, the owner of a patent is granted a limited monopoly for a useful, novel, and non-obvious invention. The monopoly allows the inventor, if he or she is lucky, to reap

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9 U.S. CONST. art. I, § 8, cl. 8 ("The Congress shall have Power . . . To 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.").

10 See ANTHONY L. MIELE, PATENT STRATEGY: THE MANAGER'S GUIDE TO PROFITING FROM PATENT PORTFOLIOS 2 (2000). The author includes the following discussion regarding the effect of patent portfolios on business:

IBM's patent and intellectual property licensing efforts generate more than a billion dollars in revenue annually. Nicholas Donofrio, IBM's senior vice president and group executive of corporate technology and manufacturing, credits IBM's patent portfolio with a role in the successful generation of more than $30 billion worth of OEM agreements signed by IBM's Technology Group in 1999. Recently acquired companies such as WebTV and Amati Communications each commanded substantial purchase prices, rumored to be due in large part to their substantial patent portfolios. . . . However, a lack of attention to patents have caused companies problems. For example, in 1993, Eastman Kodak terminated one of its imaging technology subsidiaries after Wang Technologies, Inc. brought a patent infringement suit against the subsidiary.

Id.


12 See id. §§ 101, 103. The useful and novel requirements are described in Section 101, which explains the patentability of inventions: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title." Id. § 101. The non-obviousness requirement is discussed in Section 103, which states in part:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Id. § 103.
the rewards of his or her patented invention to the exclusion of everyone else. The term of the patent limits the monopoly. When the term expires, the invention becomes part of the public domain, at which point "the patent laws create a federal right to copy and use." In patent law, the pervasive goal is balancing the property rights of the patent owner with the need for public access to the information describing the patented material. Maintaining this balance is instrumental to furthering the constitutional mandate, and therefore the limits of the rights assumed by a patent must be as clear as possible. The territorial limits established by a patent are defined in its claims. The claims are the heart of a patent, and consequently they attract the bulk

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13 See id. § 271. Section 271 actually describes at length the infringement of patents, however the implication of the ability to levy a cause of action for infringement is what constitutes the value of a patent.

14 See id. § 154(a)(2). This section provides:
Subject to the payment of fees under this title, such grant shall be for a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for the patent was filed in the United States or, if the application contains a specific reference to an earlier filed application or applications under section 120, 121, or 365(c) of this title, from the date on which the earliest such application was filed.


16 See, e.g., Pfaff v. Wells Elec., Inc. 525 U.S. 55, 63 (1998). Justice Stevens explained the balance in patent law:

[T]he patent system represents a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time. The balance between the interest in motivating innovation and enlightenment by rewarding invention with patent protection on the one hand, and the interest in avoiding monopolies that unnecessarily stifle competition on the other, has been a feature of the federal patent laws since their inception.

Id.

17 See HARMON, supra note 15, at 11. See also Slimfold Mfg. Co. v. Kinkead Indus., Inc., 932 F.2d 1453, 1457 (Fed. Cir. 1991) (stating that "[i]nherent in our claim-based patent system is also the principle that the protected invention is what the claims say it is, and thus that infringement can be avoided by avoiding the language of the claims").

18 See 35 U.S.C. § 112 (2002). Regarding specifications, this section states in part: "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." Id.
of patent litigation. "Thus, the scope of a patent's claims determines what infringes the patent, and the sole effect of the grant of the property right to exclude others for a limited time from unauthorized use of a patented invention is to require that others avoid the claimed structure or process." The claims that ultimately find their way into an issued patent, however, are rarely unmodified from their original form. Amendments and other give-and-take between a patent applicant and the Patent and Trademark Office ("PTO") are very common.

Patent infringement is covered in § 271(a) of Title 35 of the United States Code. This section explicitly recognizes literal infringement of a claim, which "occurs when every limitation recited in the claim appears in the accused device." Although this is sufficient to protect a patent owner from those unimaginative opportunists who attempt to cash in simply by duplicating an invention, the scope of protection does not stop with literal infringement.

B. Key Concepts of Patent Prosecution

1. Doctrine of Equivalents and Prosecution History Estoppel

The doctrine of equivalents is judge-made law. It stipulates that "a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." The doctrine of equivalents requires analysis on an element by element basis. If the differences between an element of the accused product and the patented product

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20 Harmon, supra note 15, at 10.
23 See Halpern et al., supra note 19, at 263-65.
27 See Harmon, supra note 15, at 333.
are "insubstantial," the products are deemed equivalent. Differences between elements are considered insubstantial "'if [they] perform[ ] substantially the same function in substantially the same way to obtain the same result.'" The rationale for the doctrine is based on the concern that a device would be protected only by the exact and specific words used in the claims and that others would then have an incentive to make insubstantial changes, aiming only to bring a "copy" of the device outside the literal protection of the claims. At first glance, this doctrine may appear to severely tilt the property rights versus public access balance in favor of the patent owner. However, the doctrine of equivalents has, as its limiting doctrine, prosecution history estoppel.

Prosecution history estoppel (sometimes referred to as "file wrapper estoppel"), establishes that a patent holder should not be able to claim protective territory that was surrendered during the patent application process (otherwise known as 'patent prosecution'). Prosecution history estoppel "limits a patentee's reliance upon the [doctrine of equivalents] by preventing it from contending later that its claims should be interpreted as if limitations added by amendment were not present or that claims abandoned are still present." Therefore, prosecution history estoppel is a defense to a patent infringement charge.

The efficacy of the doctrine of equivalents and prosecution history estoppel was recently reviewed by the Supreme Court in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. Although some pundits have

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29 A definition of "element" in the patent claim sense can be found in Corning Glass Works v. Sumitomo Electric USA, Inc., 868 F.2d 1251, 1259 (Fed. Cir. 1989). There, the court states: "Element" may be used to mean a single limitation, but it has been used to mean a series of limitations which, taken together, make up a component of the claimed invention. In the All Elements rule, "element" is used in the sense of a limitation of a claim.
30 Id. (citations omitted).
32 See Graver, 339 U.S. at 607.
33 See, e.g., HARMON, supra note 15, at 362.
34 See id. at 361-65. See also HALPERN ET AL., supra note 19, at 267.
35 See HARMON, supra note 15, at 363.
concluded that this decision changed the landscape of patent prosecution,\(^{37}\) the Supreme Court is generally reluctant to make changes to patent law that will have major economic effects.\(^{38}\) A better interpretation of the decision is that it simply reinforced the application of the doctrine of equivalents set out in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*\(^{39}\)

II. THE *WARNER-JENKINSON* DECISION

Warner-Jenkinson Co. ("Warner") and Hilton Davis Chemical Co. ("Hilton") were both involved in manufacturing color dyes.\(^{40}\) Included in its patent portfolio, Hilton owned U.S. Patent No. 4,560,746 ("the '746 patent"), which was issued in 1985.\(^{41}\) A critical claim in the '746 patent describes an improved filtration process "through a membrane having a nominal pore diameter of 5-15 Angstroms under a hydrostatic pressure of approximately 200 to 400 p.s.i.g., at a pH from approximately 6.0 to 9.0."\(^{42}\) This critical phrase was added to a claim during prosecution, after the PTO expressed concern with an existing patent that described a process using a pH above 9.0.\(^{43}\) No reason was given for the lower pH limit of 6.0.\(^{44}\) In 1986, apparently unaware of the '746 patent, Warner developed a similar filtration process that operated at a pH level of 5.0.\(^{45}\) Once aware of Warner's process, Hilton filed a patent infringement suit that eventually reached the Supreme Court.\(^{46}\)


\(^{38}\) See infra note 73 and accompanying text.

\(^{39}\) *Warner-Jenkinson Co.*, 520 U.S. at 21.

\(^{40}\) Id.

\(^{41}\) Id. at 21-22.

\(^{42}\) Id. at 22 (citing the '746 Patent Application at 36-37).

\(^{43}\) Id. (the existing patent was the "Booth" patent).

\(^{44}\) Id. at 22 n.2.

\(^{45}\) Id. at 23.

\(^{46}\) Id.
Hilton based its claim on the doctrine of equivalents, and Warner in turn challenged the doctrine's validity. Warner first argued to extinguish the doctrine based on a belief that it was inconsistent with the Patent Act. The Court refused to overrule the doctrine of equivalents, stating that "the lengthy history of the doctrine of equivalents strongly supports adherence to our refusal . . . to find that the Patent Act conflicts with that doctrine." However, in response to concerns that a broad application of the doctrine could result in boundless claims, the Court stated that the doctrine shall be applied on an element by element basis as opposed to viewing the patent as whole.

Anticipating a refusal from the Court to kill the doctrine, Hilton argued in the alternative for several limitations in the doctrine's application: (1) that prosecution history estoppel should be applied liberally; (2) that intent should be required; and (3) that the doctrine should only apply to disclosed equivalents.

A. The Scope of Prosecution History Estoppel

Hilton suggested that "any surrender of subject matter during patent prosecution, regardless of the reason for such surrender, precludes recapturing any part of that subject matter, even if it is equivalent to the matter expressly claimed." The Court rejected this application and indicated that previous cases had only considered prosecution history estoppel when limiting changes were made "to avoid the prior art, or [ ] to address a specific concern . . . that arguably would have rendered the claimed subject matter unpatentable." For a limiting change such as the one present in this case, where no indication was given as to why the change was made, the Court created a presumption that the change was made in order to avoid unpatentability. The burden was then on the patent

47 Id. at 23, 25.
48 Id. at 25.
49 Id. at 28.
50 Id. at 28-29.
51 Id. at 30, 34, 37.
52 Id. at 30 (emphasis added).
53 Id. at 30-31.
54 The patentees modified the high end of the range, 9.0, in response to the PTO prosecution, however there was no agreement as to why they limited the lower end of the range to 6.0. Id at 22.
holder to overcome the presumption. This has since been referred to as the rebuttable presumption.

B. Is Intent Required?

Hilton next argued that, because one of the objectives of the doctrine of equivalents is to stifle those who make insubstantial changes to a patented design in order to copy it without literally infringing, an element of intent must be present. Again, the Court was reluctant to impose such a limitation on the doctrine, stating that "there is no basis for treating an infringing equivalent any differently from a device that infringes the express terms of the patent . . . [T]herefore, [it] is akin to determining literal infringement, and neither requires proof of intent.

C. The Scope of the Doctrine of Equivalents

Hilton last argued that notice of the scope of the patent's protective territory necessitated that equivalents be disclosed in the patent. In other words, Hilton wished only to apply the doctrine of equivalents to those equivalents that were not only known at the time of the patent but that were actually recited within the patent. Once again, the Court refused to limit the doctrine in this way. "[T]he 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." Thus, the Court implied that the doctrine of equivalents may be applied to amended claims if an equivalent of the claim was not known at the time of the drafting of the claim.

With the Warner-Jenkinson decision, the Supreme Court accomplished several important things. It reaffirmed the long-standing validity of the doctrine of equivalents and provided a presumption against the application of the doctrine for unexplained limitations, while also limiting the application of prosecution history estoppel. More than five years later, the

55 Id. at 33.
56 Id. at 41-42. Although implicit from the text of the majority's opinion, Justice Thomas does not use the phrase "rebuttable presumption." Justice Ginsburg, however, does use the phrase in her concurrence. Id.
57 See id. at 34.
58 Id. at 35.
59 See id. at 37.
60 Id.
Supreme Court would once again be faced with a challenge to the application of the doctrine of equivalents, and like Warner-Jenkinson, it came in the form of a demand for broad application of prosecution history estoppel.

III. THE FESTO DECISION

The facts of the Festo case closely parallel those of Warner-Jenkinson. In Festo, the patent owner developed a method to move objects along a conveying system and held two related patents, known as the "Stoll" patent and the "Carroll" patent. The patents covered a device that utilized magnetic properties to transport objects along a conveyance path. During prosecution of both of these applications, amendments were made to the claims in response to actions from the PTO. Both patents added the limitation that the system would contain two one-way sealing rings, each with a one-way sealing lip. The Stoll patent was further amended to indicate that the outer sleeve of the design would be made of a magnetic material.

After introduction of Festo's device into the market, Shoketsu Kinzoku Kogyo Kabushiki Co., a.k.a. SMC Corporation ("SMC"), introduced a product that was very similar. SMC's device had two differences: it contained a single sealing ring "with a two-way lip" and the material chosen for the sleeve was nonmagnetizable. Festo filed an infringement action claiming that the SMC device infringed under the doctrine of equivalents.

The Festo case was volleyed back and forth through the federal court system. The original action occurred before the 1997 Warner-Jenkinson decision, and by the time the Supreme Court first granted certiorari in 1998, the Court remanded the case in light of the Warner-Jenkinson decision.

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61 Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 122 S. Ct. 1831, 1835-36 (2002). When it is released, the U.S. Reporter cite for this case will be 535 U.S. 722 (2002). The U.S. Reporter cite is not used in this footnote and those following because pagination is not available as of the date of publication.
62 Id. at 1835.
63 Id. at 1836.
64 Id.
65 Id.
66 Id.
67 Id. The original case was heard in the United States District Court for the District of Massachusetts, which held in favor of Festo and denied the claim of estoppel. From there, the case was appealed to the Court of Appeals for the Federal
In 2001, the Supreme Court once again granted certiorari to clear up what had apparently become a confused understanding of the *Warner-Jenkinson* standard.  

In the case under review, the Federal Court of Appeals had changed both the scope of application of prosecution history estoppel and its effect on the doctrine of equivalents when it held: (1) that prosecution history estoppel should apply to "any amendment that narrows a claim to comply with the Patent Act;" and (2) that prosecution history estoppel should act as an absolute bar to use of the doctrine of equivalents. The court rationalized this holding by claiming that it "lends certainty to the process of determining the scope of protection afforded by a patent." Nearly the same arguments were originally heard in front of the Supreme Court in *Warner-Jenkinson* just five years earlier.

After a chronological recounting of the history for the rules applicable to the case and before applying those rules to the facts, the Court reminded the appeals court of its decision in *Warner-Jenkinson* and once again quoted:

Circuit where the District Court's ruling was affirmed. The Supreme Court granted certiorari, and then vacated and remanded in light of its *Warner-Jenkinson* decision. The original panel heard the case on remand and the Court of Appeals ordered a rehearing en banc. The en banc court reversed the decision, and the Supreme Court granted certiorari. *Id.* (citations omitted).


69 *Festo*, 122 S. Ct. at 1836 (emphasis added).

70 *Festo*, 234 F.3d at 577.

71 See *Warner-Jenkinson* Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 25-26 (1997). The court summarizes the arguments in that case as follows:

In particular, petitioner argues: (1) The doctrine of equivalents is inconsistent with the statutory requirement that a patentee specifically "claim" the invention covered by a patent; (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; (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.

*Id.* (citations omitted).
"[T]he lengthy history of the doctrine of equivalents strongly supports adherence to our refusal in Graver Tank to find that the Patent Act conflicts with that doctrine. Congress can legislate the doctrine of equivalents out of existence any time it chooses. The various policy arguments now made by both sides are thus best addressed to Congress, not this Court."72

This quote, which when combined with unanimous decisions in both cases should probably be viewed more as a reprimand, is contained in both Warner-Jenkinson and Festo and clearly indicates the Supreme Court’s reluctance to disturb the delicate balance that exists in patent law.73 In fact, Justice Ginsberg, in her concurring opinion in Warner-Jenkinson, expressed concern about disturbing the balance when she discussed the ramifications of a strict rebuttable presumption standard.74 It is this concern that convinced and will continue to convince the Court not to make drastic changes to the patent system that will have far-reaching economic effects.

73 See id. at 1841. The court, recognizing the effects that such a change would make stated:

The Court of Appeals ignored the guidance of Warner-Jenkinson, which instructed that courts must be cautious before adopting changes that disrupt the settled expectations of the inventing community. In that case we made it clear that the doctrine of equivalents and the rule of prosecution history estoppel are settled law.

Id. (citations omitted).
74 Warner-Jenkinson, 520 U.S. at 41 (Ginsburg, J., concurring). Justice Ginsburg states in part:

I join the opinion of the Court and write separately to add a cautionary note on the rebuttable presumption the Court announces regarding prosecution history estoppel. I address in particular the application of the presumption in this case and others in which patent prosecution has already been completed. The new presumption, if applied woodenly, might in some instances unfairly discount the expectations of a patentee who had no notice at the time of patent prosecution that such a presumption would apply. Such a patentee would have had little incentive to insist that the reasons for all modifications be memorialized in the file wrapper as they were made. Years after the fact, the patentee may find it difficult to establish an evidentiary basis that would overcome the new presumption. The Court’s opinion is sensitive to this problem, noting that "the PTO may have relied upon a flexible rule of estoppel when deciding whether to ask for a change" during patent prosecution.

Id. (citations omitted).
A. The Scope of Prosecution History Estoppel

The first major issue addressed by the Court was the scope and application of prosecution history estoppel. Festo, as the patent owner and petitioner, argued that only narrowing amendments concerning the subject matter of a patent should be vulnerable to prosecution history estoppel. Although the Court appeared to side with the Federal Court of Appeals on this issue, close inspection of the holding indicates that the scope of prosecution history estoppel remains as it was declared in Warner-Jenkinson. In the instant case, and perhaps in an effort to offset the aggressive stance taken by the Court of Appeals, the petitioner argued for restricting application of prosecution history estoppel to limiting amendments made in order to avoid prior art. The Court suggested that this restriction was not warranted and indicated that prosecution history estoppel may apply to other amendments. They reasoned that superficial amendments would be treated as such, if in fact they were superficial, and if an amendment was deemed to have narrowed the scope of the patent, "estoppel may apply."

The description of the scope of prosecution history estoppel by the Court in Festo meshes neatly with the description given in Warner-Jenkinson. In that case, the Court acknowledged that there are situations where prosecution history estoppel clearly should be considered: when limiting amendments are made "to avoid prior art, or [ ] to address a specific concern... that arguably would have rendered the claimed subject matter unpatentable." The Court then introduced a rebuttable presumption of estoppel for amendments that limited claims but that were not explained. In Festo, the Court combined those theories, stating that estoppel may apply either for limiting changes that avoid prior art or for limiting changes made to comply with § 112 of the Patent Act. The strategic choice of the word "may" is merely an indication by the Court that the patentee then must prove that the subject matter at issue was not relinquished. In other words, the patentee must overcome a rebuttable presumption.

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75 Festo, 122 S. Ct. at 1839.
76 Id.
77 Id.
78 Id.
79 Id. at 1840.
81 See id. at 33-41.
82 Festo, 122 S. Ct. at 1840.
83 Id.
B. The Scope of the Doctrine of Equivalents

The choice of the word "may" in the discussion of the scope of prosecution history estoppel was telling in another way. It indicated that the Court would not accept the absolute bar that the Court of Appeals wished to apply to elements that were amended during prosecution. As indicated in *Warner-Jenkinson*, the Court recognized that the time for determining equivalents is at the time of infringement. The Court in fact offered that there are situations in which an amendment clearly does not relinquish territory limited in an amended claim, such as unforeseeable equivalents or equivalents that have a "tangential" relationship. The Court also left room open for other alternatives. The Court of Appeals, however, wished to hold a patentee to the literal terms used in a claim, even those that may have been arbitrarily limited. The Court disagreed, stating that an amended claim may suffer the same imperfections of word choice as an original claim. The anomaly created by the Court of Appeals' rule would be devastating to the patent process. The Supreme Court, recognizing this, strongly admonished the lower court:

The Court of Appeals ignored the guidance of *Warner-Jenkinson*, which instructed that courts must be cautious before adopting changes that disrupt the settled expectations of the inventing community. In that case we made it clear that the doctrine of equivalents and the rule of prosecution history estoppel are settled law. The responsibility for changing them rests with Congress. Fundamental alterations in these rules risk destroying the legitimate expectations of inventors in their property.

Fearing inequity, the Court, as they had done some five years earlier, reaffirmed its position of a rebuttable presumption of prosecution history estoppel for limiting amendments made during the patent application process and confirmed that prosecution history estoppel does not act as an absolute bar to application of the doctrine of equivalents. However, once again the door was left open for legislative action. Although it seems certain that the Supreme Court will not change its position in the near

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84 See supra note 60 and accompanying text.
85 *Festo*, 122 S. Ct. at 1842.
86 Id. at 1840-41.
87 Id. at 1841 (citations omitted) (emphasis added).
88 See id. at 1841-42.
89 See supra notes 72, 87.
future, they have made it clear that Congress has and may use its power to do so. Thus, attention must be paid to the effects and consequences of the Court of Appeals' position on the future of patent prosecution and the economic effects it would have on the value of patent portfolios. If Congress sees fit to make such a change—a change which would effectively remove rights from a patent holder—opponents should be prepared to lobby for increased protection in order to maintain the patent law balance.

IV. EFFECTS OF AN ABSOLUTE BAR

Although the Supreme Court has unanimously expressed its disapproval of a complete bar to the doctrine of equivalents twice, the Court has also indicated that Congress would be the better audience for such an effort. The arguments in favor of such a bar would not differ from those forwarded in Warner-Jenkinson and Festo, and they would be centered on the presumed stability that such a bar would provide.

In order to promote innovation, patent law provides both a means for protection and a source of information. The system provides the right to exclude others from making, using, or selling an invention, while at the same time it publishes in great detail the elements of that invention. Access to the patent descriptions and explanations is then granted to the public. Innovation is promoted by allowing others to improve or build upon the concepts contained within them. A necessary result, however, is that the system also allows for circumvention. By detailing the claimed territory of the invention, the patentee explicitly describes the "metes and bounds" of the area of property to which he is claiming title. The argument that proponents of the absolute-bar theory present is that these property delineations must be clear enough so that other inventors are properly informed with regard to what is and what is not claimed by the inventor.

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90 See supra notes 72, 87.
92 See supra note 16 and accompanying text.
93 See supra notes 2, 3.
94 See supra note 17.
If these delineations are not clear, the argument continues, there is too much risk for the other inventor to bear and innovation suffers as a result.\(^6\) The Federal Court of Appeals' theory thus argues that allowing prosecution history estoppel to act as an absolute bar to the application of the doctrine of equivalents would provide clarity.

Opponents of the absolute bar, however, focus on the admission that patents are an imperfect representation of an innovative device or process.\(^7\) This imperfection is born from the necessary result of using written language to describe conceptions. While it is true that permitting prosecution history estoppel to act as an absolute bar to the application of the doctrine of equivalents would make the property boundaries more clear to an inventor reviewing the patent, the effects on the patent owner are drastic. A current patent has a twenty year life,\(^8\) and may be attacked or defended at any time during this period. Any changes to the law regarding the extent to which the patent may be protected have a direct effect on the value of the patent.\(^9\) Also, as Justice Ginsberg worried, the expectations of the patentee would be reduced.\(^10\)

To underscore this point, consider the following simple example that is largely based on one proffered during oral arguments in Festo.\(^11\) The example proceeds as follows: In situation #1, a patentee changes a claim from the word "adhesives" to a more limiting word, perhaps "glue," in response to any action from the PTO regarding some other concern with the patent.

\(^6\) See Slimfold Mfg. Co. v. Kinkead Indus., Inc., 932 F.2d 1453, 1457 (Fed. Cir. 1991). The court described the claims from the prospective of a potential competitor:

Designing around patents is, in fact, one of the ways in which the patent system works to the advantage of the public in promoting progress in the useful arts, its constitutional purpose. Inherent in our claim-based patent system is also the principle that the protected invention is what the claims say it is, and thus that infringement can be avoided by avoiding the language of the claims.

\(^7\) See HARMON, supra note 15, at 332-33 (describing a patent as "one of the most difficult legal instruments to draw with accuracy").

\(^8\) See supra note 14.

\(^9\) See supra note 10.

\(^10\) See supra note 74.

patent. In situation #2, the patentee chooses the word "glue" from the outset and thus never amends the claim. Under the Federal Court of Appeals' rule, although the resulting patents would have the same specific wording, the patentee in situation #1 would not be permitted to invoke the doctrine of equivalents with regard to that element, whereas the patentee in situation #2 would be free to use the doctrine. The result is much more equitable under the Warner-Jenkinson/Festo standard. The patentee in situation #1 would be presumed to have given up the right to claim an equivalent of "glue" and would then have the burden to overcome the presumption, perhaps with an assertion that the equivalent was unforeseeable at the time of the application. The two situations also highlight the differences in economic value that would be placed on the patent in situation #1 versus that in situation #2.

Likewise, the practical effect of the Federal Court of Appeals' decision was felt as soon as it was handed down—evidenced by the fact that it immediately overruled at least eight Federal Circuit rulings. 2 In the dissenting opinions, the ominous scope of the decision was noted, and the majority's opinion was labeled as "drastic," "unjust," and termed "a profound inequity." 3 The subsequent decisions of several federal courts also contained indications of disapproval. 4 Nevertheless, if Congress is

103 Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 629, 631, 638 (Fed. Cir. 2000). Circuit Judge Linn describes the majority's decision with regard to prosecution history estoppel as follows:

I see no substantial cause for the majority's drastic action, and I must, respectfully, dissent from the pronouncement that any time a claim limitation is narrowed by amendment for any statutory purpose, regardless of the nature and extent of the change, prosecution history estoppel completely bars the application of the doctrine of equivalents. Id. at 629 (Linn, J., dissenting). Likewise, Circuit Judge Newman has the following to say with regard to the decision: "The majority recasts prosecution history estoppel in a legally incorrect and equitably unjust manner." Id. at 631 (Newman, J., dissenting). Judge Newman adds:

In addition, a profound inequity is now created between those patents that may fortuitously have managed to avoid amendment or argument as to all elements subject to imitation by insubstantial change, and those that have not. The practical significance has not been explored in the majority opinion, and indeed this aspect was not briefed or argued.

Id. at 638.
104 For example, in TM Patents, 136 F. Supp. 2d at 209, a case that was decided almost two months after the Federal Circuit's November 2000 ruling, it appears that Judge McMahon does not agree with the higher court's decision. Throughout
convinced that the benefits of claim clarity outweigh these inequities, proponents of patentee’s rights should be prepared to react. One obvious reaction would be to avoid prosecution history estoppel altogether by refusing to limit claims or by using various claims configurations that could not be viewed as limiting. The necessary consequences of this would be an increase in appeals and increased and longer correspondences between the patentee and the PTO. This would certainly delay the date of issuance for a patent, (and would actually result in less timely information for the public) because patents as a whole would not issue as quickly as they do under the current system. Another possible consequence, especially with regard to manufacturing processes, would be that companies would turn to trade secret protection. Trade secret law originated from common law and is now state-based law. Trade secrets protect products or processes from use by others by creating a veil of secrecy around the product or process. Although in theory trade secret protection could last in perpetuity, not all products or processes are best for trade secret protection and, if the invention is susceptible to discovery independently or by reverse engineering, protection would end at that point. An inventor whose product or process could be protected by either patent or trade secret protection typically weighs the benefits and risks of both systems. Therefore, if Congress were to follow the Federal Court of Appeals’ approach to prosecution history estoppel, thus diminishing the value of a patent and its marketability for licensing, more inventors might choose to keep their product or process secret. This would thereby risk independent development. Ironically, this would work to defeat the purpose that the Federal Court of Appeals had in suggesting the change, namely an increase in useful information. An alternative that does not have such a result should be sought.

the case, Judge McMachon drops subtle hints to this effect, continually stating that he is “bound to follow,” the ruling, that the court made a “cataclysmic” decision, and that he was “constrained to conclude,” as he did. Id. at 211, 214, 215.


106 See HARMON, supra note 15, at 712.

107 See, e.g., CVD, Inc. v. Raytheon Co., 769 F.2d 842, 850 (1st Cir. 1985).

108 Id. Trade Secret law is an interesting area of intellectual property law and a topic that warrants many pages of discussion, however for the purposes of this Note, it is only briefly discussed as an alternative to seeking a patent.

109 The author notes that not all products or processes fall into both categories.
V. THE "RESERVE-LIMIT" DESIGNATION

Assuming, arguendo, that Congress were to entertain such a limitation on the application of the doctrine of equivalents, how could the rights of a potential patentee be bolstered in order to even the property rights versus public access balance? This Note proposes that a new designation be introduced, as an alternative, that would be captured during the prosecution process and noted in the prosecution history. However, the reasoning behind the limitation would not become part of the history. The designation would work as follows: a patentee would be allowed the right to limit an amendment, while reserving the right to disclose the reason for the limitation if an infringement suit were to arise in the future. If an element had this reserve-limit designation, the absolute bar would not apply. This reserve-limit designation, of course, would not apply to limitations that were specifically requested by the PTO, and thus would not tie the Office's hands during the patent process. However, in situations such as those encountered in Warner-Jenkinson and Festo, where the patentee made a limitation that was not in direct response to the PTO, the reserve-limit designation would afford the patent owners the ability to subsequently argue to the court the reasons for these limitations. In the case of Warner-Jenkinson, it would have allowed the patentee the right to introduce evidence that testing had been done at pH levels well below the 6.0 limitation placed in the patent. By including reserve-limit designations in the prosecution record, a potential infringer would at least be on notice that the purported limitation may not be rigid. A potential infringer would also be on notice that those limitations that do not have a reserve-limit designation are strict boundaries.

The question then arises as to why a patentee would not just place a reserve-limit designation on all limits contained within the patent. First, as

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110 This suggested addition to the patent prosecution process was developed by the author and is intended as a preemptive suggestion should Congress decide to entertain the arguments set forth by the Federal Circuit's approach.

111 See Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 22 n.2 (1997). This footnote reads:

Petitioner contends that the lower limit was added because below a pH of 6.0 the patented process created "foaming" problems in the plant and because the process was not shown to work below that pH level. Respondent counters that the process was successfully tested to pH levels as low as 2.2 with no effect on the process because of foaming, but offers no particular explanation as to why the lower level of 6.0 pH was selected. Id. (citations omitted).
noted, if the limitation were in direct response to a specific concern of the PTO, this designation would not be available. Thus in such a situation there would be no difference from the current procedure. The difference arises when a limitation is added that was not in direct response to the PTO. The patentee at this point must document the reason for the limitation, but this information does not become part of the prosecution history—only the designation that certain elements are reserve-limited. The documented reasoning would then come into play if an infringement suit were to arise at a later point in time. If an inventor fails to document the reason for the limitation, he would then be barred from subsequently arguing the reasons during an infringement suit. If, however, the inventor did document the reasoning for the limitation, then this information could be introduced during the infringement trial.

This proposed system would provide more information for the public without forcing the patentee to give up rights unnecessarily. If a potential infringer decided to chance an infringement suit by altering an element that was designated as reserve-limited, then the potential infringer would chance that the reason for the limitation would eclipse the elements of the potentially infringing device. On the other hand, if a change were made in response to an action from the PTO, then no designation would be attached to the element and the potentially infringing device could have elements that operated outside of the non-designated limitations. To illustrate, reconsider the adhesives/glue paradox. As noted, under the Federal Court of Appeals approach, even though the resulting patents would be identical (i.e., both resulting patents include the word “glue”), protection from infringement would differ because only the patentee in situation #1 would be permitted to utilize the doctrine of equivalents. Under the proposed modification, if the change from the adhesives to glue wording was made for a reason that was not in direct response to a concern from the PTO, the patentee could then use the reserve-limit designation and maintain documentation giving the reasons for the limitation. Under this scenario, both patentees would ultimately be permitted to use the doctrine of equivalents to challenge a potentially infringing device.

To further understand the different effects that the Federal Court of Appeals’ approach and this new approach would have on the patent process, another simple example may be helpful. Consider an inventor who invents a new process for a chemical composition that may be used to treat

\[\text{112 See supra note 101 and accompanying text.}\]
the exterior of a structure in commercial building applications. Assume a critical element of this process is dependent upon heating a solution to a temperature of 400°F for a period of time, although testing has shown that the composition will work, perhaps not as well, by heating the solution to a minimum temperature of 200°F or a maximum temperature of 600°F. Assume another key element later in the process includes the use of a certain portion of alcohol in the solution and both acetyl-alcohol and ethyl-alcohol were tested with similar results.

In order to protect the invention, assume the inventor is considering trade secret protection or, as an alternative, patent protection. Under trade secret protection, the inventor must consider the ability to keep the secret in fact secret, with the risk that a competitor might develop the process independently. If it was an independent discovery, the inventor would have no recourse against his or her competitor. Under patent protection, however, the optimal situation would result in complete protection of the process.

Assume that the inventor chooses the patent route and proceeds to apply for a patent. One of the claims of the patent application contains an explanation of the heating step, including the range of temperatures of 200°F to 600°F that were possible during testing. Another claim includes the use of alcohol in the mixture. During the evaluation stage, assume the PTO notes that prior art exists with regard to the use of alcohol during the mixing stage. Specifically, the PTO indicates that a previously existing process includes the use of acetyl-alcohol. Accordingly, the patent application is changed to reflect a use of ethyl-alcohol. Additionally, because testing has recently shown that the optimal results occur at the 400°F heating temperature, the patent application is also changed to reflect the heating temperature of 400°F. The patent application then follows the process and is eventually issued. Under the Federal Court of Appeals' approach (and the current approach), both limitations become part of the prosecution history and are available to anyone who desires to reach the information.\footnote{See generally Warner-Jenkinson, 520 U.S. at 24 (discussing the facts of Graver Tank & Mfg. Co. v. Linde Air Products Co., 339 U.S. 605 (1950)). This example was inspired by the Warner-Jenkinson case, and while it may be overly simplified, it does represent what could be a real concern for inventors as evidenced by the actual facts of Warner-Jenkinson. Note that the particulars of the example are entirely hypothetical and are merely meant to serve as factual grounds for the purpose of the example.}

\footnote{See ROCHELLE COOPER DREYFUSS & ROBERTA ROSENTHAL KWALL, INTELLECTUAL PROPERTY: TRADEMARK, COPYRIGHT AND PATENT LAW 565 (1996).}
The patent owner, eager to capitalize on his new process, starts to solicit companies to whom he wishes to assign the right to use the process. Assume that, at the same time, a competitor accesses the patent description and the prosecution history, which are available to the public. The competitor completes testing and develops an identical process except that the competitor heats the solution to a temperature of 550°F. Once aware of the competitor's similar process, the inventor sues the competitor for patent infringement. Although the specific claims of the inventor's patent specify that the solution is heated to 400°F, the inventor plans to use the doctrine of equivalents to extend his protection to include the 550°F temperature that the competitor is using. Likewise, the competitor plans to use prosecution history estoppel to bar the inventor's infringement claim.

Now, consider the two approaches. Under the Federal Court of Appeals' approach, the inventor would be absolutely barred from claiming an equivalent of 550°F. Although the PTO had expressed concern about the alcohol designation, the inventor had limited the temperature claim to reflect his optimal tests. Even though the limitation was not in response to a concern of the PTO, under this approach the inventor is nevertheless barred from using the doctrine of equivalents. The detrimental effect of this approach on the value of the patent is clear.

Under the proposed approach, at the time that the inventor decided to limit the temperature range to 400°F, he could have made a reserve-limit designation with regard to this element. The prosecution history still contains the limit to ethyl-alcohol, but now indicates that the 400°F temperature is reserve-limited. Included in the patent holder's records (but not part of the prosecution history and thus not available to the public) is the evidence of the tests that showed success at ranges from 200°F to 600°F. Now, admittedly, the decision for the competitor is more difficult because the exact bounds of the claimed territory are not as clearly delineated as under the Federal Court of Appeals' approach. However, the reserve-limit approach provides the competitor with more information than is currently available while stopping short of giving him the keys to circumventing the patent's claims. With regard to the alcohol limitation, where the inventor was precluded from including a reserve-limit designation, the competitor has more information than previously available because this element will not be subject to the doctrine of equivalents. With regard to the heating temperature, the competitor is also given more information than currently available because he is on notice that this element has been limited and that the inventor claims to possess documentation as to why this limitation was made. This could possibly mean that the inventor may claim other temperatures in future litigation.
Note that the reserve-limit designation does not inequitably act to protect the inventor. To demonstrate, consider the result if the competitor had found success with a temperature of 650°F. Under the current system, the inventor may be able to claim the doctrine of equivalents in order to cover this temperature. Under the Federal Court of Appeals’ approach, the inventor would be precluded from invoking the doctrine of equivalents. Under the proposed approach, the records of the inventor (showing success only in the temperature ranges of 200°F to 600°F) would actually work against his attempt to cover the 650°F process.

VI. CONCLUSION

The history of patent protection can be traced back to authority contained in the United States Constitution. Necessary to this protection is the use of the doctrine of equivalents, and a necessary limitation to the use of the doctrine of equivalents is prosecution history estoppel. The value that an issued patent possesses can only be determined by understanding the sound principles that courts will apply in order to protect a patent owner. In its 2002 Festo decision, the Supreme Court restated its position that the doctrine of equivalents shall survive. The Court also rejected the Court of Appeals’ holding that prosecution history estoppel will operate as an absolute bar against any use of the doctrine of equivalents for any element that was limited for any reason. The Court reaffirmed the position taken in Warner-Jenkinson: that amendments that limit elements create a rebuttable presumption that prosecution history estoppel applies. Both in Festo and in Warner-Jenkinson, the Court indicated that Congress could legislate this issue if it pleased.

Although it appears from the Court’s two unanimous decisions that they will not allow such a change to affect the balance of patent protection, the door has been left open for Congressional action. If Congress were to decide to disturb the balance in this way, potential patentees could alternatively re-evaluate the use and value of the patent system, perhaps turning the patent prosecution process into a never-ending trail of appeals and amended claims, or turn to alternative means of protection. On the other hand, potential patentees could attempt to restore the balance by lobbying for further changes to the patent prosecution process.

One solution could be the addition of a new designation for claim elements that were limited for reasons other than direct requests from the PTO, termed reserve-limit claims. The reserve-limit designation would become part of the prosecution history, but the reasons for the limitations would be maintained by the patentee and not included in the prosecution
history of the patent. A potential infringer would then be on notice as to which claims are truly limited, and as to those that may not be. More importantly, the rights of the patent holder, the potential value of a patent, and the balance of patent protection would be restored.