Festo and the Future of the Doctrine of Equivalents

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I. INTRODUCTION

Patent protection in the United States is rooted in the United States Constitution, which grants Congress the 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.”[1] A patent is a “property right granted . . . to an inventor to exclude others from making, using, offering for sale, or selling the invention . . . for a limited time in exchange for public disclosure of the invention.”[2] Pursuant to this grant of authority, the Patent Act enumerates, inter alia, the procedural requirements to apply for and receive a patent and specifies the temporary monopoly received by the inventor.[3]

One of the key requirements of the Patent Act is that the inventor must describe the invention in “full, clear, concise, and exact terms.”[4] This requirement is essential for the patent holder (also called the patentee) to know what he owns and for the public to know what he does not.[5] The law attempts to balance the interest of the inventor to maintain a temporary monopoly, thereby allowing him to capitalize on his innovation, with the interest of the general public to “pursue innovations, creations, and new ideas beyond the inventor’s exclusive rights.”[6]

This requirement to describe the invention in full, clear, concise, and exact terms is hampered, however, by the difficulty in finding words to describe an invention with complete
[*2*] precision. The difficulty was aptly described by Judge Durfee of the United States Court of Claims:

An 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 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. [9]

Because of this difficulty, the Supreme Court of the United States has long recognized that patents cannot only be interpreted by their literal terms. [10] To do so would allow a competitor to make an unimportant or insubstantial change to a patented invention and thereby defeat the patent. [11] Instead, “[t]he scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described.” [12] This is the basis for the doctrine of equivalents, which was first adopted by the Supreme Court in 1854. [13]


This note discusses the Supreme Court’s (professed) continuing support of the doctrine of equivalents and ultimately concludes that, while in Festo it correctly declined to allow the Federal Circuit’s restrictive decision to stand, it made a change to the doctrine that could be quite problematic. Part II provides definitions of some key patent terms to assist a reader who is unfamiliar with patent practice. Part III explores the history of the doctrine of equivalents and its relation to prosecution history estoppel. Part IV sets out the facts, case history, and holding of Festo. Part V analyzes the Court’s interpretation of the effect of a claim amendment during prosecution on the applicability of the doctrine of equivalents. Part VI discusses the potential
The first step to obtain a United States patent for a new invention is to file an application with the United States Patent and Trademark Office (“USPTO”). The application “must include a specification, including a claim or claims; drawings, when necessary; an oath or declaration; and the prescribed filing fee.” The specification provides a written description of the invention, the manner and process of making the invention, and the claims. The specification must “enable any person skilled in the art or science to which the invention . . . appertains . . . to make and use” the invention. It must also describe a specific embodiment of the invention, as well as the “best mode contemplated by the inventor of carrying out” the invention.

The claim defines the invention and is the legally enforceable part of the patent. “The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.” A claim may be independent, wherein it may stand on its own and does not refer back to or depend on any other claim or claims, or it may be dependent, wherein the claim “refer[s] back to and further limit[s] another claim or claims in the same application.”

A multiple dependent claim is a "dependent claim which further limits and refers back in the alternative to more than one preceding independent or dependent claim. A multiple dependent claim may not depend on another multiple dependent claim, either directly or indirectly."
[*4*] After the patent application has been filed with the USPTO, the application process enters the prosecution phase. Patent prosecution consists of the actions taken after the patent application is filed and before the final rejection or allowance of the claims by the USPTO. 

During this period, the applicant may amend one or more of his claims. This may be done, *inter alia*, to avoid prior art (i.e., because the patent examiner believes that the claim or claims, as written, are not novel or non-obvious when compared with already existing patents) or to comply with technical requirements regarding the form of the application. Failure of the applicant to take any required actions during this time causes the application to be deemed abandoned.

The courts have expanded the protection the inventor receives for his invention based on the literal wording of the claims through the doctrine of equivalents. The doctrine of equivalents “prevents a person from practicing a fraud on a patent by substituting obvious equivalents for elements in the claims in order to avoid their literal language.” A patent owner may invoke this doctrine in an infringement suit if the accused device (i.e., the allegedly infringing device) “performs substantially the same function in substantially the same way to obtain the same result.”

Once an inventor has received a patent, the inventor (or his assignee) may enforce that property right in the courts by way of an infringement suit. Infringement consists of the unauthorized making, using, offering for sale, or selling of a patented device. A device will infringe a patent if it contains all of the elements or limitations of any claim of the patent. When this occurs, the patent claim is said to “read on” the device.

If the infringement suit claims infringement under the doctrine of equivalents, rather than direct infringement, the accused infringer may argue that prosecution history estoppel should limit the patentee’s use of that doctrine. Prosecution history estoppel, also called file wrapper
[*5*] estoppel, prevents a patent owner from using the doctrine of equivalents to regain, “through litigation, coverage of subject matter relinquished during prosecution” of the patent.\[36\] Subject matter may be relinquished by amendment of the application by the applicant.\[37\] The patentee may not “adopt[ ] a broad construction to establish infringement after urging a narrow one to obtain the claim in the first place.”\[38\]

At any time during the enforceable period of a patent, any person, including a patentee, may cite to the USPTO prior art pertaining to the validity of an issued patent.\[39\] The USPTO then determines whether the claims of the issued patent present a substantial new question of patentability.\[40\] If so, the claims are reexamined according to the procedures for the original examination.\[41\] The patentee may then add new or amended claims.\[42\] After reexamination concludes, the USPTO will issue a certificate cancelling unpatentable claims, confirming patentable claims, and incorporating in the patent any amended or new claims which were determined to be patentable.\[43\]

### III. HISTORY OF THE DOCTRINE OF EQUIVALENTS AND ITS RELATION TO PROSECUTION HISTORY ESTOPPEL

In approximately one and a half centuries, the Supreme Court progressed from barely having enough votes to establish the doctrine of equivalents\[44\] to unanimous support of the doctrine\[45\] and a strong statement that it is up to Congress to discard this now well-established principle.\[46\]

Three major Supreme Court cases primarily determine the contours of the doctrine of equivalents: *Winans v. Denmead*,\[47\] *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*,\[48\] and *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*\[49\]
A. Winans v. Denmead

In Winans, the plaintiff was granted a patent for an improved railroad car for carrying coal and similar materials. The invention called for the body of the car to be “in the form of a frustum of a cone . . . whereby the force exerted by the weight of the load presses equally in all directions.” This conical shape allowed the railroad car to carry far more coal than the existing “rectilinear” cars. The defendant examined and measured the plaintiff’s invention and then produced a railroad car that had a body in the form of an octagonal pyramid rather than a circular cone. At trial, the judge ruled that the patent was limited to the particular geometrical form (i.e., a circular cone) described in the specification and instructed the jury that, as a matter of law, there was no infringement.

The Supreme Court reversed the lower court, holding that the question of whether the defendant “substantially [embodied] the patentee’s mode of operation, and thereby attain[ed] the same kind of result” should have been presented to the jury. The Court noted that the evidence “tended to prove the affirmative.” The Court said that a patent is intended to cover not only the precise forms of the invention described as well as other forms which embody the invention. The Court noted that infringement exists where the accused device copies the patented mode of operation, even where the copy is “totally unlike the original in form or proportions.” The Court said that, where the patentee describes his invention and claims it “in that form which most perfectly embodies it,” he is “deemed to claim every form in which his invention may be copied, unless he manifests an intention to disclaim some of those forms.”

Four justices dissented in Winans. The dissent noted that a patentee is required by law to describe his invention in “full, clear, and exact terms,” and to “specify and point out what he claims as his invention.” The dissent argued that relaxation of this requirement for specificity will be very harmful, causing, inter alia, “oppressive and costly litigation.”
In Graver Tank, the plaintiff, Linde Air Products Company ("Linde"), owned a patent for a welding flux. The patent claimed a flux composed of “a combination of alkaline earth metal silicate and calcium fluoride.” The product sold by Linde which was based on its patent contained silicates of calcium and magnesium, both of which are alkaline earth metals. The allegedly infringing flux used a silicate of manganese, which is not an alkaline earth metal, instead of magnesium. The trial judge found that the two fluxes were “substantially identical in operation and in result.” The accused compound was “in all respects equivalent to [the patented flux] for welding purposes,” and that manganese could be “efficiently and effectively substituted” for magnesium.

The Supreme Court, noting that a “finding of equivalence is a finding of fact,” held that the trial court’s finding was adequately supported by the record and not clearly erroneous, and therefore upheld the trial court’s ruling. The Court noted that the prior art indicated that manganese could be used in welding fluxes, and that welding experts knew that magnesium and manganese were equivalent for this use. The Court provided this guidance on identifying equivalence:

What constitutes equivalency must be determined against the context of the patent, the prior art, and the particular circumstances of the case. Equivalence . . . does not require complete identity for every purpose and in every respect. In determining equivalents . . . [c]onsideration must be given to the purpose for which an ingredient is used in a patent, the qualities it has when combined with the other ingredients, and the function which it is intended to perform. An important factor is whether persons reasonably skilled in the art would have known of the interchangeability of an ingredient not contained in the patent with one that was.

Two justices dissented in Graver Tank. Justice Black expressed concern that a manufacturer will no longer be able to rely on the language of patent claims to avoid
infringement suits. Rather, the manufacturer will have to predict how far a trial court “relatively unversed in a technological field will expand the claim’s language.” Justice Douglas noted that the use of manganese was disclosed in the specification but not included in the claims. This caused the use of manganese to become “public property.” He also noted that, since the use of manganese had been covered by prior patents and it was therefore not novel, its use was unpatentable. Thus, the decision in this case meant that Linde essentially received patent protection (through the doctrine of equivalents) on an unpatentable compound.

C. Warner-Jenkinson Co. v. Hilton Davis Chemical Co.

In Warner-Jenkinson, the plaintiff, Hilton Davis Chemical Company (“Hilton Davis”), owned a patent for a process of purifying dyes using ultra-filtration through a porous membrane at pH levels between approximately 6.0 and 9.0. The defendant, Warner-Jenkinson Company (“Warner-Jenkinson”), used a similar method of ultra-filtration, but at a pH level of 5.0. Hilton Davis sued, relying solely on the doctrine of equivalents. The issue of equivalence was decided by the jury, which found that Warner-Jenkinson infringed Hilton Davis’s patent under the doctrine of equivalents. The Court of Appeals for the Federal Circuit affirmed, with five dissenting judges writing three separate dissents. The Supreme Court reversed the decision and remanded the case.

The Court, in a unanimous decision, reaffirmed its support for the doctrine of equivalents and provided guidance on several issues related to this doctrine. The Court indicated that the doctrine of equivalents was well established, and it is up to Congress, not the judiciary, to get rid of it. The Court conceded that the doctrine could be seen to conflict with prior rulings that “courts have no right to enlarge a patent beyond the scope of its claims.” The Court addressed
The Court noted that the upper limit of a pH of 9.0 was added to the patent claims to avoid prior art, but there was no clear indication why the lower limit was added. Prosecution history estoppel would prevent the patentee from using the doctrine of equivalents against a process using a pH above 9.0, but there was no prior rule on whether estoppel applies where the reason for adding the narrowing amendment (in this instance, the lower pH limit of 6.0) is not clear. The Court held that the patentee has the burden of establishing the reason for a narrowing amendment. The trial court will determine whether that reason is sufficient to prevent prosecution history estoppel from barring application of the doctrine of equivalents to the narrowed element. If the patentee is unable to establish a reason for the narrowing amendment, the trial court should presume that the amendment was for a “substantial reason related to patentability,” and, as such, the doctrine of equivalents can not be applied to that element. Justice Ginsburg, in her concurring opinion, expressed some concern about “woodenly” applying this presumption. Her concern was that, for patents prosecuted prior to this decision, the applicant would not have considered this issue and would not have taken steps to ensure there was an evidentiary basis to overcome this presumption.

Finally, the Court rejected the argument that the doctrine of equivalents should be limited to those equivalents which were known at the time the patent was issued, or, more strictly, to those that were disclosed within the patent itself. The Court held that “the proper time for evaluating equivalency . . . is at the time of infringement.”

The Court declined to decide whether the question of equivalency was for the judge or jury to decide. However, the Court did seem supportive of the Federal Circuit’s decision that equivalency is a jury question.
Festo Corporation (“Festo”) owns two patents for magnetic rodless cylinders. U.S. Patent No. 4,354,125 (the “Stoll Patent”) was filed on May 28, 1980 and issued to inventor Kurt Stoll by the USPTO on October 12, 1982. U.S. Patent No. 3,779,401 (the “Carroll Patent”) was filed on February 17, 1972, issued to inventor George Carroll by the USPTO on December 18, 1973, and issued a reexamination certificate with amended claims on October 25, 1988. Both the Stoll Patent and the Carroll Patent are directed to the same technology. In very simple terms, the magnetic rodless cylinders of the Stoll and Carroll Patents consist of a piston, a cylinder, and a sleeve. The piston is inside the cylinder and is moved by pressurized air or fluid. The sleeve surrounds the cylinder and is made of magnetizable material. The magnetic attraction between the sleeve and the piston causes the sleeve to move with the piston. This device is used in many applications, such as conveyor systems, industrial sewing equipment, and the Big Thunder Mountain Railroad ride at Walt Disney World.

During prosecution of the Stoll Patent, all of the claims were rejected under 35 U.S.C. § 112 “because the exact method of operation [was] unclear,” and several of the claims were rejected, also under Section 112, because they were “improperly multiply dependent.” In response to the patent examiner’s objections, the application was amended to add “a pair of sealing rings, each having a lip on one side, which would prevent impurities from getting on the piston assembly.” The amendment also called for the sleeve to be made of a magnetizable material. The Carroll Patent was also amended during the reexamination process to add a pair of sealing rings, as in the Stoll Patent. After Festo began selling its magnetic rodless cylinder, Shoketsu Kinzoku Kogyo Kabushiki Co. (also known as SMC Corporation) and SMC Pneumatics, Inc. (collectively, “SMC”) began selling a similar device. While Festo’s device
[*11*] utilized two one-way sealing rings and a magnetizable sleeve, SMC’s device utilized one
two-way sealing ring and a sleeve made of a non-magnetizable alloy.\[113\]

Festo sued SMC in the United States District Court for the District of Massachusetts.\[114\] SMC argued that its cylinder did not literally infringe Festo’s patents and that prosecution history estoppel prevented Festo from using the doctrine of equivalents because of the narrowing amendments made during prosecution.\[115\] The trial court judge rejected SMC’s argument, holding that Festo’s amendments were not made to avoid prior art and therefore Festo was not estopped from arguing that SMC’s cylinder was equivalent.\[116\] The trial jury rendered a verdict in favor of Festo, finding that “Festo had proven by a preponderance of the evidence that SMC’s non-magnetizable sleeve and single sealing ring performed substantially the same function in substantially the same way to obtain substantially the same result” as the patented cylinder.\[117\]

A three judge panel of the Federal Circuit affirmed the trial court’s decision.\[118\] The decision was appealed to the Supreme Court, which vacated the decision and remanded it in light of the Court’s then recent decision in *Warner-Jenkinson*.\[119\] The Federal Circuit reheard the case en banc and reversed.\[120\] The Federal Circuit held that prosecution history estoppel arises any time a narrowing amendment is made during prosecution so as to comply with the requirements of the Patent Act, not just when the amendment is made to avoid prior art.\[121\] Only one judge dissented from this holding.\[122\] The Federal Circuit also held that, when prosecution history estoppel does apply, it creates a complete bar to use of the doctrine of equivalents for that narrowed element.\[123\] This controversial holding garnered four separate dissents.\[124\]

The Supreme Court vacated the Federal Circuit decision in a unanimous ruling.\[125\] The Court held that prosecution history estoppel applies any time an amendment is made to the application for reasons of patentability, not just when the amendment is made to avoid the prior
V. ANALYSIS AND DISCUSSION

A. Unanimous Opinion

In Festo, the Supreme Court unanimously continued its support of the doctrine of equivalents. The Court agreed with the Federal Circuit that prosecution history estoppel may apply any time an amendment is made to the application for reasons of patentability, not just when the amendment is made to avoid the prior art. However, the Court rejected an attempt by the Federal Circuit to severely restrict application of the doctrine of equivalents in situations where prosecution history estoppel applies. It held that a presumption exists that prosecution history estoppel bars a finding of equivalence, but the patentee may rebut that presumption.

1. Kinds of Amendments That Give Rise to Estoppel

The petitioner in Festo argued that estoppel should arise when amendments are intended to narrow the claimed subject matter, typically to avoid prior art, but not when amendments are made to comply with statutory requirements concerning the form of the application. The Court noted that prosecution history estoppel does not arise every time a patent application is amended. Instead, an amendment creates a presumption of estoppel that the patentee may rebut. The Court also noted that, while prosecution history estoppel is most often discussed “in the context of amendments made to avoid the prior art[,] . . . it does not follow . . . that amendments for other purposes will not give rise to estoppel.” According to the Court, the test for estoppel is whether the amendment is made to secure the patent and whether the amendment narrows the patent’s scope. The Court noted that an amendment may be purely
[*13*] “cosmetic,” in which case it would not narrow the patent’s scope and therefore not raise an estoppel.[137] But regardless of the reason for the amendment, if the amendment narrows the patent’s scope then prosecution history estoppel may apply.[138]

2. Estoppel Does Not Bar Use of Doctrine of Equivalents

The Federal Circuit held that prosecution history estoppel creates a complete bar to use of the doctrine of equivalents.[139] This meant that a claim which has been narrowed during prosecution could only be enforced according to “its strict literal terms.”[140] The Supreme Court disagreed with the Federal Circuit’s “bright-line rule.”[141] The Court was concerned that the appeals court’s “fundamental alterations” of the estoppel rules would “risk destroying the legitimate expectations of inventors in their property.”[142] The Court instead held that an individualized examination was necessary to determine exactly what subject matter was surrendered by the narrowing amendment.[143] It noted that, while the narrowing amendment requires the patentee to “concede that the patent does not extend as far as the original claim,” this does not mean that the “amended claim [has become] so perfect in its description that no one could devise an equivalent.”[144] The inability of language to describe an invention with complete precision is still an issue affecting the amended claim. “The narrowing amendment may demonstrate what the claim is not, but it still may fail to capture precisely what the claim is.”[145]

3. A Rebuttable Presumption

The Supreme Court, in rejecting the Federal Circuit’s complete bar, held that prosecution history estoppel creates a rebuttable presumption that bars a finding of equivalence.[146] The Court specified two situations in which the patentee could rebut this presumption: (1) where the
“equivalent [was] unforeseeable at the time of the application,” and (2) where the “rationale underlying the amendment [bears] no more than a tangential relation to the equivalent in question.” The Court also noted that, in addition to these two specific situations, “there may be some other reason suggesting that the patentee could not reasonably be expected to have described the insubstantial substitute in question.” Essentially, the patentee can overcome his burden if he can show that “at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent.”

4. On Remand

On remand the Federal Circuit will be deciding whether Festo can rebut the presumption that their narrowing amendments bar a finding of equivalence. The Federal Circuit will also be deciding three other 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”; (2) “what role a jury should play in determining whether a patent owner can rebut the presumption”; and (3) “what factors are encompassed by the criteria set forth by the Supreme Court.”

B. Discussion

The Supreme Court’s decision in Festo to overturn the Federal Circuit’s complete bar to equivalence probably did not surprise, or disappoint, many people. Numerous amicus curiae briefs were filed with the Court, with the vast majority arguing against affirmation, including the brief filed by the United States Solicitor General. The complete bar would have had [*15*]
enormous consequences if it had been allowed to stand,. Very few patents are issued in which the claims have not been amended during prosecution.\textsuperscript{[153]}

The Court focused much of its concern on precedent, and particularly on avoiding “changes that disrupt the settled expectations of the inventing community.”\textsuperscript{[154]} The Court noted that the Federal Circuit had to disregard eight Supreme Court decisions and more than fifty Federal Circuit cases when it established a complete bar to equivalence,\textsuperscript{[155]} The Court reiterated its position, stated most recently in \textit{Warner-Jenkinson}, that the doctrine of equivalents is established law and the responsibility for changing that lies with Congress.\textsuperscript{[156]}

The Court noted that actions taken during patent prosecution, both by the applicant and the USPTO, occur “in light of” existing case law.\textsuperscript{[157]} Such a significant change in the law would risk “destroying the legitimate expectations of inventors in their property.”\textsuperscript{[158]} Inventors who amended their claims under the law as it existed prior to the Federal Circuit decision had no idea that they were conceding all equivalents.\textsuperscript{[159]} The Court noted that inventors would have taken different action had they known that.\textsuperscript{[160]} The Court also noted that it had rejected similar “bright-line” rules in the past, with the acknowledged risk of less certainty and more litigation, because of such concern.\textsuperscript{[161]}

Notwithstanding the Court’s claimed concern with precedent and the settled expectations of the inventing community, the Court changed the law concerning the doctrine of equivalents and prosecution history estoppel, albeit in a \textit{potentially} less drastic way than the Federal Circuit attempted to do. The Court changed the test for determining whether prosecution history estoppel should bar a finding of equivalence.\textsuperscript{[162]}

VI. IMPACT OF FESTO
Any Supreme Court case dealing with the doctrine of equivalents is going to have an impact on nearly every patent infringement lawsuit, as such lawsuits rarely involve literal infringement.\footnote{163} Similarly, any Supreme Court case dealing with prosecution history estoppel will have a widespread impact due to the likelihood that a patent’s claims have been amended during prosecution.\footnote{164} Anything that affects infringement lawsuits necessarily affects patent prosecution practices. All actions during prosecution should be taken with an eye toward potential future litigation. As such, the Court’s decision in \textit{Festo} will certainly have a widespread impact, but hopefully a much less drastic impact than if the Court allowed the Federal Circuit’s decision to stand.

The primary impact of the \textit{Festo} decision comes from the change of the test to determine whether prosecution history estoppel should bar a finding of equivalence. The prior test, called the “reasonable competitor” test, dates from at least 1984.\footnote{165} This test asked “whether a competitor [reading the prosecution history] would reasonably believe that the applicant had surrendered the relevant subject matter.”\footnote{166}

The new test established by the Court in \textit{Festo} asks whether one skilled in the art could have reasonably been expected to have drafted a claim that would have literally encompassed the alleged equivalent.\footnote{167} The Court said that one skilled in the art could not have been expected to have drafted a claim literally encompassing the alleged equivalent when, for example, the equivalent was “unforeseeable at the time of the application,” or when the rationale for the amendment was tangential to the equivalent in question.\footnote{168}

The first of these exceptions—when the equivalent was unforeseeable at the time of the application—\footnote{169} is the most problematic. If an equivalent was foreseeable at the time of the application then the applicant would have been expected to draft a claim literally encompassing the equivalent, otherwise he cannot rebut the presumption that prosecution history estoppel bars
[17*] use of the doctrine of equivalence. Since the hypothetical person skilled in the art is presumed to “have knowledge of all technologies pertinent to the invention,”[170] all equivalents existing at the time of the application would have been foreseeable and the applicant would have been expected to draft his claim to literally encompass those equivalents.[171] This new rule seems to essentially eliminate the doctrine of equivalents for any equivalent existing at the time of the application, at least for those claims which were amended during prosecution. What is the point of the doctrine of equivalents if you are required to literally claim all existing equivalents?

For claims which were amended during prosecution, this means that the doctrine of equivalents will only be available for use against infringing devices which utilize “after-arising technologies”—technology developed after the patent was granted.[172] Equivalents utilizing after-arising technology are arguably the only equivalents that could not have been foreseen at the time of the application.[173] Certainly being able to utilize the doctrine of equivalents where the equivalent is based on after-arising technology is still important protection, but it is much less protection than what existed prior to the Festo decision.

This change is especially surprising considering that the Court recently rejected the argument that the doctrine of equivalents should be limited to those equivalents which were known at the time the patent was issued.[174] Is there really any practical difference between equivalents known at the time the patent was issued and equivalents foreseeable at the time the patent was issued, by a person with knowledge of all technologies pertinent to the invention? The Federal Circuit will likely need to answer that question at some point in time.

It is not clear what the second exception—where the rationale for the amendment was tangential to the equivalent in question[175]—will mean in practice. It has been suggested that this is meant to protect “routine technical amendments.”[176] It has also been suggested that one type of amendment this is meant to protect is the “common practice of re-writing dependent
But the Court made it clear in *Festo* that an amendment must narrow the claim in order to implicate prosecution history estoppel. 

Exactly what type of amendment will narrow a claim yet be tangential enough to qualify for this exception is far from clear. How this change will affect patent prosecution practices will depend on how the Federal Circuit determines foreseeability of equivalents. If, as suggested, all existing equivalents are deemed to be foreseeable, the impact on prosecution could be tremendous. Practitioners will somehow need to claim all foreseeable equivalents. If, as suggested, the common practice of re-writing dependent claims into independent claims is considered tangential, then it will be critical for practitioners to submit numerous dependent claims, each slightly more narrow than the next. The goal would be to never have to add a narrowing element during prosecution, but only to convert the broadest allowable dependent claim into an independent claim. As stated, this is already common practice, but will perhaps now have to be taken to an extreme degree.

In any event, practitioners will have to be careful to ensure that the rationale for any amendments is fully and accurately reflected in the prosecution history.

The effect on infringement suits will similarly depend on how the Federal Circuit interprets the Supreme Court’s charge. Future plaintiffs may have great difficulty winning infringement cases based on the doctrine of equivalents, at least where the alleged equivalent is based on technology that existed at the time of the patent application.

**VII. CONCLUSION**

The Supreme Court was correct to reject the Federal Circuit’s bright-line rule that prosecution history estoppel was a complete bar to a finding of equivalence. The complete bar, while providing an easy to apply rule for the courts, would have greatly reduced the protection
[*19*] provided by, and hence the value of, most patents. The Court’s decision to change the

test for determining whether prosecution history estoppel should bar a finding of equivalence

seems to be ill-considered and may be nearly as damaging as the decision the Court overturned.

The Federal Circuit is urged to adopt a narrow interpretation of what equivalents are foreseeable

at the time of a patent application.

[2]. United States Patent and Trademark Office, Glossary, <

[4]. See, e.g., 35 U.S.C. § 101 (requiring that the invention be useful); id. § 102 (requiring that the invention

be novel); id. § 103 (requiring that the invention not be obvious to “a person having ordinary skill in the art”).
[5]. Id. § 154(a)(2) (setting the length of patent protection at twenty years for newly filed utility patents).
[6]. Id. § 112.
[8]. Id. at 1837.
[9]. Autogiro Co. of America v. United States, 384 F.2d 391, 397 (Ct. Cl. 1967).
[10]. See Festo, 122 S. Ct. at 1837.
[11]. Id. at 1837.
[12]. Id.
[13]. Id. at 1838. The doctrine was first adopted in Winans v. Denmead, 56 U.S. (15 How.) 330 (1854). In

that case, the Court stated that “the exclusive right to the thing patented is not secured, if the public are at liberty to

make substantial copies of it, varying its form or proportions.” Id. at 343.
[15]. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558 (Fed. Cir. 2000). The Court of

Appeals for the Federal Circuit was created in 1982, and has exclusive appellate jurisdiction over most patent cases.
1 DONALD S. CHISUM, CHISUM ON PATENTS GI-5 (2002).

[17]. Id.
[18]. United States Patent and Trademark Office, Glossary,

20. Id. § 1.71(b)
[21]. United States Patent and Trademark Office, Glossary,

[22]. Id.
[23]. See 37 C.F.R. § 1.75(c) (2002).
[24]. Id.
[*20*]


[27]. See id.

[28]. See Festo, 122 S. Ct. at 1839.


[30]. See infra Part III.


[34]. See CHISUM, supra note 15, at Gl-3.

[35]. See id.

[36]. Wang Laboratories, Inc. v. Mitsubishi Electronics America, Inc., 103 F.3d 1571, 1577–78 (Fed. Cir. 1997). Prosecution history estoppel is also called file wrapper estoppel because the record of proceedings before the USPTO on a patent application is called the file wrapper. CHISUM, supra note 15, at Gl-9. The file wrapper contains the original application, actions by the patent examiner, and any amendments or arguments made by the applicant. Id.


[38]. Id.


[41]. CHISUM, supra note 39, at § 11.07[4].

[42]. Id.

[43]. Id.

[44]. As indicated supra note 13, the doctrine was first adopted in Winans v. Denmead, in a 5-4 decision.

[45]. Both recent Supreme Court decisions upholding the doctrine of equivalents, Warner-Jenkinson Co. v. Hilton Davis Chemical Co., 520 U.S. 17 (1997), and Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., were unanimous decisions.

[46]. Festo, 122 S. Ct. at 1841.


[51]. Id. at 331.

[52]. Id.

[53]. Id. at 332.

[54]. See id. at 340.

[55]. Id. at 336.

[56]. Id. at 344.

[57]. Id. at 342.

[58]. Id.

[59]. Id. at 343.

[60]. Id. at 344.
[*21*]

[61]. *Id.* at 347 (Campbell, J., dissenting) (internal quotation marks omitted).

[62]. *Id.* (Campbell, J., dissenting).

[63]. *Graver Tank*, 339 U.S. at 606.

[64]. *Id.* at 610.

[65]. *Id.*

[66]. *Id.*

[67]. *Id.* at 611–12.

[68]. *Id.* at 609, 612, 614 n.2.

[69]. *Id.* at 612.

[70]. *Id.* at 609.

[71]. *Id.* at 612.

[72]. *Id.* at 617 (Black, J., dissenting).

[73]. *Id.* (Black, J., dissenting).

[74]. *Id.* at 618 (Douglas, J., dissenting).

[75]. *Id.* (Douglas, J., dissenting).

[76]. *Id.* (Douglas, J., dissenting).

[77]. *Id.* (Douglas, J., dissenting).

[78]. *Warner-Jenkinson*, 520 U.S. at 21–22. For the reader who has forgotten their high school chemistry class, this case contains a definition of pH. *Id.* at 22 n.1.

[79]. *Id.* at 23.

[80]. *Id.*

[81]. *Id.*

[82]. *Id.*

[83]. *Id.* at 41.

[84]. *Id.* at 21, 29, 33.

[85]. *Id.* at 28.

[86]. *Id.* at 29.

[87]. *Id.*

[88]. *Id.* at 33.

[89]. See *id*.

[90]. *Id.*

[91]. *Id.*

[92]. *Id.*

[93]. *Id.* at 41 (Ginsburg, J., concurring).

[94]. *Id.* (Ginsburg, J., concurring).

[95]. *Id.* at 37.

[96]. *Id.*

[97]. *Id.* at 38.

[98]. See *id*.


[100]. *Festo*, 234 F.3d at 579.

[101]. *Id.* at 580.

[102]. *Id.*
[*22*]

[103]. Id. at 579.
[104]. Id. at 579, 581.
[105]. Id. at 579.
[106]. Id.
[107]. Festo, 122 S. Ct. at 1835.
[108]. Festo, 234 F.3d at 583 (internal quotation marks omitted).
[109]. Festo, 122 S. Ct. at 1836.
[110]. Id.
[111]. Id.
[112]. Id.
[113]. Id.
[114]. Id.
[115]. Id.
[116]. Id.
[117]. Festo, 234 F.3d at 585.
[120]. Festo, 122 S. Ct. at 1836.
[121]. Id.
[122]. Id.
[123]. Id.
[124]. Id.
[125]. Id. at 1843.
[126]. Id. at 1839.
[127]. Id. at 1840–41.
[128]. See id. at 1838.
[129]. Id. at 1839.
[130]. Id. at 1840–41.
[131]. Id. at 1842.
[132]. Id. at 1839.
[133]. Id.
[134]. Id. at 1842.
[135]. Id. at 1839.
[136]. Id. at 1840.
[137]. Id.
[138]. Id.
[139]. Id.
[140]. Id.
[141]. Id. at 1840–41.
[142]. Id. at 1841.
[143]. Id. at 1840.
[*23*]

[144]. Id. at 1840–41.
[145]. Id. at 1841.
[146]. Id. at 1842.
[147]. Id.
[148]. Id.
[149]. Id.

[151]. Id. at 1290.


[153]. Festo, 234 F.3d at 638 n.21 (“at most 10–15% of patents are granted without claim amendment“). (note overruled on different grounds)

[154]. Festo, 122 S. Ct. at 1841.
[155]. Id. at 1837.
[156]. Id. at 1841.
[157]. Id.
[158]. Id.
[159]. Id.
[160]. Id.
[161]. Id.


163. *Graver Tank*, 339 U.S. at 607 (“Outright and forthright duplication is a dull and very rare type of infringement.”).

[164]. See supra note 153 and accompanying text.
[165]. *Leading Cases*, supra note 162, at 408 & n.65 (citing Prodyne Enterprises, Inc. v. Julie Pomerantz, Inc., 743 F.2d 1581, 1583 (Fed. Cir. 1984)).

[167]. *Festo Corp.*, 122 S. Ct. at 1842.
[168]. See id.
[169]. See id.

[170]. *Leading Cases*, supra note 162, at 411.

[171]. See id.
[172]. See id.
[173]. Id.

[175]. See *Festo Corp.*, 122 S. Ct. at 1842.
[176]. *Leading Cases*, supra note 162, at 410.

[177]. Alexander, supra note 152, at 606. The author gives an example of an independent claim with elements A, B, and C, and a dependent claim with element D (which would therefore include elements A, B, C, and D). Id. If the independent claim is not patentable but the dependent claim is, the applicant would then re-write the dependent claim as an independent claim which would then be allowed. Id.

[178]. Festo, 122 S. Ct. at 1840.
[179]. Alexander, supra note 152, at 606.