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## **PATENT AMENDMENTS AND PROSECUTION HISTORY ESTOPPEL UNDER *FESTO***

### **INTRODUCTION**

*On November 29, 2000, the Federal Circuit retroactively reduced the value of nearly 1.2 million unexpired United States patents by announcing a new rule for the somewhat obscure doctrine of prosecution history estoppel. Designed to foster clarity in patent applications, this new pronouncement in Festo Corp v. Shoketsu Kinzoku Kogyo Kabushiki Co.<sup>1</sup> allows for easy copying of some patented inventions and reduces patent owner's ability to prove infringement. This article outlines the change in the law and discusses the positive and negative consequences of the decision.*

### **BACKGROUND**

¶1 Festo examines the interface between the doctrine of prosecution history estoppel and the related principle of infringement under the doctrine of equivalents. To fully comprehend the implications of the decision, it is necessary to review the purposes and goals of each doctrine.

¶2 The doctrine of equivalents is an equitable doctrine established by the courts to protect patented inventions.<sup>2</sup> In order to find that a patent has been infringed (literal infringement), every element of the patented claim must be found in the infringing device.<sup>3</sup> Thus, a copyist can avoid literal infringement by making changes so that his or her device does not have the exact elements disclosed in the patented claim. Any discrepancy between the patented claim and the accused device will negate a finding of literal infringement.<sup>4</sup>

¶3 However, in order to protect patent owners from copyists stealing the patented invention by making small or insubstantial changes to the invention, the Supreme Court established the principle of infringement under the doctrine of equivalents.<sup>5</sup> This doctrine allows a court to find infringement if the elements of the accused device are "insubstantially" different from those disclosed in the patent.<sup>6</sup> For example, in this case Festo's patent claimed a device with a pair of sealing rings and the defendant's device only employed one sealing ring. In the

court's view, such differences were insubstantial, and thus the court found the defendant liable for patent infringement under the doctrine of equivalents.<sup>7</sup>

¶4 Because of the inherent uncertainty in the doctrine of equivalents, courts have exercised their equitable powers to limit the doctrine. An important limit is the principle of prosecution history estoppel. This doctrine relates to the amendments, statements, arguments, and representations made by the patent applicant during the course of obtaining a patent.<sup>8</sup> Any statement that limits the scope of the patent made for "a reason related to patentability" is binding and the applicant will be forbidden (estopped) from later attempting to argue that the limitation does not exist.<sup>9</sup> For example, in this case Festo limited the scope of the application by amending the application so that one of the elements had to be made of a "magnetizable material."<sup>10</sup> The Federal Circuit held that since Festo had limited the scope of its patent by requiring a "magnetizable material," it could not later go back and argue that a use of non-magnetizable material infringed its patent.<sup>11</sup>

¶5 Although both infringement under the doctrine of equivalents and prosecution history estoppel appear to complement one another, there are interesting questions regarding the interface between the two doctrines. For example, if an element has been limited by an amendment, is prosecution history estoppel a complete bar on all possible equivalents to this element, or is there a range of equivalents still available in an infringement analysis? Moreover, is an equivalent structure discovered after the submission of the amendment also barred by prosecution history estoppel, or does the estoppel apply only to those equivalents specifically disclaimed in the amendment?

¶6 The Federal Circuit has addressed these questions on various occasions and has developed two lines of cases that give conflicting answers. In about fifty cases,<sup>12</sup> the Federal Circuit has accepted the answer given in *Hughes Aircraft Co. v. United States*.<sup>13</sup> In *Hughes*, the Federal Circuit stated that prosecution history estoppel creates a "flexible bar" to the doctrine of equivalents in that if the equivalent was not directly surrendered during the application process, a patent owner may still sue for infringement under the doctrine of equivalents.<sup>14</sup>

¶7 However, three cases have reached the opposite result and applied a "complete bar" to all equivalents.<sup>15</sup> The most notable of these cases is *Kinzenbaw v. Deere & Co.*<sup>16</sup> In *Kinzenbaw*, the Federal Circuit denied any equivalent to an element that had been limited during the prosecution, even when the equivalent was not specifically disclaimed by the amendment.<sup>17</sup> In fact, the applicant is completely barred from asserting infringement under the

doctrine of equivalents.<sup>[18](#)</sup>

## FACTS

¶8 Festo sued its competitor Shoketsu Kinzoku Kogyo Kabushiki Co. (SMC) on grounds that SMC's products infringed its patented magnetically coupled rodless cylinders under the doctrine of equivalents. Festo won on all counts<sup>[19](#)</sup> and was awarded damages.<sup>[20](#)</sup> Even though the court found infringement under the doctrine of equivalents, there were notable differences between the SMC's devices and the structures disclosed in Festo's patents:

[f]irst, ... SMC devices... have only a single resilient two-way sealing ring... while the patents disclose and claim devices with a pair of sealing rings.... Second, the outer portion of the sleeves of SMC's devices is made of an aluminum alloy, a material that the parties agree is not a magnetizable material... while the... patent discloses and claims a sleeve made of a magnetizable material.<sup>[21](#)</sup>

¶9 It is noteworthy that during the application process, the applicant amended the patents to clarify (1) that the disclosed structure contained two sealing rings and (2) that the sleeve was to be constructed of a magnetizable material.<sup>[22](#)</sup>

¶10 SMC appealed the judgment to the Federal Circuit which affirmed the finding of infringement under the doctrine of equivalents.<sup>[23](#)</sup> After deciding a case that clarified infringement under the doctrine of equivalents, the Supreme Court vacated the judgment and remanded the case to the Federal Circuit for further review in light of the new precedent.<sup>[24](#)</sup> On remand, the Federal Circuit again affirmed the district court's judgment of infringement under the doctrine of equivalents.<sup>[25](#)</sup> The Federal Circuit granted SMC petition for a rehearing en banc<sup>[26](#)</sup> resulting in this opinion.

## HOLDING

¶11 The Federal Circuit first set out to clarify and expand the doctrine of prosecution history estoppel. During the application process, all amendments that narrow the scope of the patent claims,<sup>[27](#)</sup> or change the application so as to comply with one of the statutory requirements for patenting<sup>[28](#)</sup> will create a prosecution history estoppel. This estoppel will apply to all amendments, even if the applicant fails to state a reason for the amendment<sup>[29](#)</sup> or submits an amendment that is "not required by the [patent] examiner or made in response to a rejection [of the patent application]"<sup>[30](#)</sup>

¶12 More importantly, if a prosecution history estoppel applies from an amendment to a specific element, "no range of equivalents is available for the amended claim element" under a doctrine of equivalents infringement analysis.<sup>31</sup> In other words, the Federal Circuit adopted the complete bar test of Kinzebaw: if there has been an amendment creating prosecution history estoppel, the patent owner is "complete[ly] bar[red]" from asserting a claim of infringement under the doctrine of equivalents.<sup>32</sup> In determining infringement, courts are simply required to ascertain whether the amendment created prosecution history estoppel. If the court answers the question in the affirmative, the court is barred from finding infringement under the doctrine of equivalents.<sup>33</sup>

¶13 Applying these principles to the specifics of the case, the Federal Circuit held that since Festo had amended both the elements during the application process, the doctrine of prosecution history estoppel completely barred Festo from asserting infringement under the doctrine of equivalents for these elements.<sup>34</sup> Thus, the district court erred in deciding that a "non-magnetizable material" was equivalent to a "magnetizable material" and that use of one sealing ring was equivalent to the use of two sealing rings.<sup>35</sup>

¶14 In dissent, many of the judges argued that adoption of a complete bar against all doctrine of equivalent infringement analyses would unfairly prejudice many industries and would alter the value of unexpired patents.<sup>36</sup>

## CONSEQUENCES

¶15 The effects of this decision will be monumental, fostering a change in the way that practitioners file patent applications. Prior to Festo, past practice has been to claim broadly in the initial application for a patent, and then negotiate with the United States Patent and Trademark Office through one or more rejections until arriving at a mutually acceptable set of claims. However, since most amendments will create a full prosecution history estoppel regarding every limitation that is amended for patentability purposes, many practitioners will not risk amending their applications. Rather they will draft narrow, more specific claims that will be more easily understood and interpreted. This increase in clarity may speed the prosecution process.<sup>37</sup>

¶16 More importantly, the increase in clarity will protect a second-comer to an industry. Since the claims will be more narrowly drafted, it will be more difficult to claim patent infringement. This change will allow the second-comer to explore technological advances that would have been discarded or undeveloped due to fear of litigation.<sup>38</sup> As stated by Judge Schall:

the [second comer] will be free to improve on the patented technology and design around it without being inhibited by the threat of a lawsuit because the changes could possibly fall within the scope of equivalents left after a claim element has been narrowed by amendment for a reason related to patentability. This certainty will stimulate investment in improvements and design-arounds because the risk of infringement will be easier to determine.<sup>39</sup>

¶17 At the same time, Festo drastically diminishes the rights of the patent owner. For example, Festo establishes an easy and foolproof method for a copyist to appropriate patented technology.<sup>40</sup> All the copyist is required to do is (1) search the published prosecution history of a patent and identify an element of the invention that was amended for a reason related to patentability; (2) copy the elements of the invention exactly as they appear in the patent, except for the element that was amended; (3) for the element that was the subject of the amendment, substitute the disclosed element with another element that is known to be the equivalent of the disclosed item.<sup>41</sup> It does not matter that the change to the disclosed element is "unimportant or insubstantial."<sup>42</sup> Since the new doctrine of prosecution history estoppel will completely bar the patent owner from asserting infringement under the doctrine of equivalents, there is no way for the patent owner to protect his or her invention.

¶18 The effects of this of this easy means for copying patented technology is compounded by the fact that this decision applies to all patents, including 1.2 million patents procured by practitioners before implementation of the new rule.<sup>43</sup> Patent owners who submitted amendments during the application process under the belief that the amendment would not harm their future rights will now find that by retroactively changing the rules, the Federal Circuit has drastically reduced the value of their patents because these patent owners cannot stop copyists from stealing their inventions. Businesses, which licensed patents under the belief that they would be able to exclude others from using the invention, will now find that the Federal Circuit has likewise taken from them their ability to obtain a return on their investment.<sup>44</sup>

¶19 Moreover, while it is clear that this decision will reduce the number of amendments submitted and change the way that many practitioners apply for patents, such changes may not lead to positive or beneficial results. Rather than causing practitioners to submit applications that are more concrete and understandable, Festo will actually cause practitioners to either (1) not disclose the invention and opt to treat the invention as a trade secret (thus defeating the patent system's goal of fostering public disclosure); or (2) submit applications that will be allowed without amendment, but whose claims are so narrow that they cannot fully protect the invention

(thus defeating the patent system's goal of providing incentives to invent). In either case, the public loses.

## **CONCLUSION**

¶20 Only time will tell the exact consequences of Festo and whether the benefits of clarity outweighs the substantial loss to patent owners. Yet, two results are certain: (1) the once obscure doctrine of prosecution history estoppel will now be brought to the center of many patent disputes; and (2) many unresolved questions remain as to the exact limits of the doctrine of prosecution history estoppel. For example:

1. What about argument-based estoppel? Do arguments made to the Federal Circuit also constitute a complete bar any analysis of infringement under the doctrine of equivalents?
2. Does cancellation of a claim constitute an amendment made for a substantial reason related to patentability, and thus invoke the complete bar?
3. What about a claim that is amended into a means-plus-function claims? Normally, infringement of such a claim is analyzed under the doctrine of equivalents. However, if there is a complete bar caused by the amendment, how can any doctrine of equivalents analysis occur?
4. What about where there are multiple claims covering the same invention and one of the claims is amended and the other is not? Does the complete bar created by the amendment apply only to that specific claim, or does it apply to the invention in general?

¶21 Hopefully, the Federal Circuit will continue answer these questions and further clarify the doctrine of prosecution history estoppel.

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## **Footnotes**

[1.](#) 234 F.3d 558 (Fed. Cir. 2000).

[2.](#) See Warner-Jenkinson Co. v. Hilton-Davis Chemical Co., 520 U.S. 17, 24-25 (1997) (citing Graver Tank Mfg. Co. v. Linde Air Products Co., 339 U.S. 605, 609 (1950)).

[3.](#) See Southwall Technologies Inc. v. Cardinal IF Co., 54 F.3d 1570, 1575 (Fed. Cir. 1995).

[4.](#) See id.

[5.](#) See Warner-Jenkinson, 520 U.S. at 21-22.

[6.](#) See id. at 39-40; see also Festo Corp v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 564 (Fed. Cir. 2000).

[7.](#) See Festo, 234 F.3d at 578-79.

[8.](#) See id. at 564 (quoting Phamacia & Upjohn Co. v. Mylan Pharmaceutical Inc., 170 F.3d 1373, 1376-77 (Fed. Cir. 1999)).

[9.](#) Warner-Jenkinson, 520 U.S. at 44; see also Phamacia & Upjohn Co. v. Mylan Pharmaceutical Inc., 170 F.3d 1373, 1376 (Fed. Cir. 1999).

[10.](#) Festo, 234 F.3d at 583.

[11.](#) See id. at 587-88.

[12.](#) For a complete list see Festo, 234 F.3d at 613-15 (Michel, J. dissenting).

[13.](#) 717 F.2d 1351 (Fed. Cir. 1984).

[14.](#) Festo, 234 F.3d at 572.

[15.](#) Id.

[16.](#) 741 F.2d 383 (Fed. Cir. 1984)

[17.](#) See Festo, 234 F.3 at 572.

[18.](#) See id.

[19.](#) For some of the counts, the district court granted Festo's motion for summary judgment, and the jury found infringement under the doctrine of equivalents for the remaining counts.

[20.](#) See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, No. 88-1814-PBS, slip op. At 2-3 (D. Mass. Oct. 27, 1994) (Judgment) ("Festo I") 234 F.3d at

[21.](#) See *Festo*, 234 F.3d at 582.

[22.](#) See *id.*

[23.](#) See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 72 F.3d 857 (Fed. Cir. 1995) ("Festo II").

[24.](#) See *Shoketsu Kinzoku Kogyo Kabushiki Co v. Festo Corp.*, 520 U.S. 1111 ("Festo III").

[25.](#) See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 172 F.3d 1361 (Fed. Cir. 1999) ("Festo IV").

[26.](#) See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 187 F.3d 1381 (Fed. Cir. 1999) ("Festo V").

[27.](#) See *Festo*, 234 F.3d at 568.

[28.](#) See *id.* at 566-67.

[29.](#) See *id.* at 578.

[30.](#) See *id.* at 568.

[31.](#) *Id.* at 569.

[32.](#) *Id.* at 575.

[33.](#) For a case applying Festo see *ACLARA Biosciences, Inc. v. Caliper Technologies Corp.*, 125 F.Supp.2d 391, 398-99 (N.D. Cal. 2000).

[34.](#) See *id.* at 588-89.

[35.](#) *Id.*



[36.](#) Id. at 617-19 (Michel, J. dissenting).

[37.](#) See id. at 577.

[38.](#) See id.

[39.](#) Id.

[40.](#) See id. at 616 (Michel, J. dissenting).

[41.](#) See id.

[42.](#) Id.

[43.](#) See id. at 618 (Michel, J. dissenting).

[44.](#) See id. at 619 (Michel, J. dissenting).