

**FEDERAL CIRCUIT TO DECIDE EN BANC
WHEN PROSECUTION HISTORY ESTOPPEL APPLIES, AND THE RANGE OF
EQUIVALENTS UNDER WARNER-JENKINSON**

By: Robert H. Resis and Christopher Roth

I. INTRODUCTION

On August 20, 1999, the Federal Circuit granted the petition to rehear en banc Festo Corp. v. Shoketsu Kinzoku Kabushiki Co., 51 U.S.P.Q.2d 1959-60 (Fed. Cir. 1999). In accordance with the court's order granting the rehearing, the panel opinion reported at 172 F.3d 1361 (Fed. Cir., April 19, 1999) was vacated. On rehearing en banc, the Federal Circuit stated that the following questions may be addressed in the briefs.

1. For the purposes of determining whether an amendment to a claim creates prosecution history estoppel, is “a substantial reason related to patentability,” Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 33 (1997), limited to those amendments made to overcome prior art under § 102 and § 103, or does “patentability” mean any reason affecting the issuance of a patent?
2. Under Warner-Jenkinson, should a “voluntary” claim amendment - one not required by the examiner or made in response to a rejection by an examiner for a stated reason - create prosecution history estoppel?
3. If a claim amendment creates prosecution history estoppel, under Warner-Jenkinson what range of equivalents, if any, is available under the doctrine of equivalents for the claim element so amended?
4. When “no explanation [for a claim amendment] is established,” Warner-Jenkinson, 520 U.S. at 33, thus invoking the presumption of prosecution

history estoppel under Warner-Jenkinson, what range of equivalents, if any, is available under the doctrine of equivalents for the claim element so amended?

5. Would a judgment of infringement in this case violate Warner-Jenkinson's requirement that the application of the doctrine of equivalents "is not allowed such broad play as to eliminate [an] element in its entirety," 520 U.S. at 29. In other words, would such a judgment of infringement, post Warner-Jenkinson, violate the "all elements" rule?

As explained below, the answers to the above questions will impact patent prosecution. Before addressing the impact of the upcoming en banc decision, the panel opinion is instructive.

II. SUMMARY OF PANEL DECISION IN FESTO

A. Introduction

The panel decision in Festo involved two patent claims, Claim 9 of the Carroll patent (U.S. Patent No. 3,779,041), and Claim 1 of the Stoll patent (U.S. Patent No. 4,354,125).

Claim 9 of the Carroll patent stated in pertinent part, "A device for moving articles, which comprises and a pair of resilient sealing rings situated near opposite axial ends of the central mounting member and engaging the cylinder to effect a fluid-tight seal therewith;"

Claim 1 of the Stoll patent stated, in pertinent part, "In an arrangement having a hollow cylindrical tube and driving and driven members movable thereon for conveying articles, the improvement comprising ... first sealing rings located axially outside said guide rings for wiping said internal wall as said piston moves along said tube to thereby cause any impurities that may be present in said tube to be pushed along said tube so that said first annular magnets will be free of interference from said impurities, wherein said driven member includes a cylindrical sleeve

made of a magneticizable material and encircles said tube, ...”

B. All-Elements Rule Applied to Carroll Patent

The first issue before the panel regarding Claim 9 of the Carroll patent was whether the all-elements rule of the doctrine of equivalents was violated by the district court grant of summary judgment that SMC infringed this claim by using a single two-way sealing ring at the end of the piston that is in contact with the pressure fluid, as opposed to the claimed “pair” of sealing rings.

The panel held that the all-elements rule was properly applied with regard to the Carroll patent. The panel reasoned that in Warner-Jenkinson, the Supreme Court affirmed the precept of the doctrine of equivalents when they stated “a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 21, 117 S.Ct. 1040, 1045, 41 U.S.P.Q.2d (BNA) , 1865 (1997).

The panel reasoned that the Supreme Court balanced concerns to limit opportunity for “fraud on the patent,” while guarding against undue breadth of the doctrine when it stated “[e]ach element contained in a patent claim is deemed material to defining the invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole.” 520 U.S. at 29, 117 S.Ct. at 1049, 41 U.S.P.Q.2d at 1871. The panel further noted that the Supreme Court did not intend to overturn years of Federal Circuit decisions on the all-elements rule. The panel stated that the Supreme Court explained that in applying the rule it is appropriate to identify “the role played by each element in the context of the specific patent claim.” 520 U.S. at 40, 117 S.Ct. at 1054, 41 U.S.P.Q.2d at 1875. The panel also stated

that this analysis “will thus inform the inquiry as to whether a substitute element matches the function, way, and result of the claimed element, or whether the substitute element plays a role substantially different from the claimed element.” Id.

The panel decision held that compliance with the all-elements rule is determined at the threshold of the equivalency analysis and that compliance is determined by first identifying the claim elements as a matter of claim construction and then determining whether each claim element has a counterpart in the allegedly infringing device.

Applying these teachings of Warner-Jenkinson, the court held that the role of the claimed pair of sealing rings is to “effect a fluid tight seal with the cylinder.” The court also found that the single two-way sealing ring of SMC had the same role, thereby meeting the all-elements rule. Subsequently, the court found equivalency in fact based on Festo’s unchallenged evidence of interchangeability and technologic equivalency showing that the accused two-way sealing ring performs the same function, in the same way, with the same result as Festo’s claimed pair of sealing rings.

C. Prosecution History Estoppel Applied to the Carroll Patent

The panel also noted that the Supreme Court in Warner-Jenkinson upheld the importance of prosecution history estoppel in applying the doctrine of equivalents. The panel stated that while prosecution history estoppel arises from amendments required for reasons of patentability and when the record is not clear why an amendment was made, there is a rebuttable presumption that the amendment was made for reasons of patentability, the Supreme Court rejected the argument that any amendment creates an estoppel. 520 U.S. at 32-33, 117 S.Ct. at 1050-51, 41 U.S.P.Q.2d at 1872-73.

SMC argued that since Festo did not originally claim the sealing rings, but instead added

that claim during reexamination, the new presumption of estoppel bars all recourse to the doctrine of equivalents, because any change to claims is necessarily related to patentability. The panel rejected SMC's argument and held that prosecution history estoppel did not bar application of the doctrine of equivalents to the sealing rings because the prosecution history shows that the amendment claiming the sealing rings made during reexamination was voluntary and not required by an examiner's rejection. Further, the panel noted that the prosecution history is clear that neither Festo nor the Examiner distinguished the prior art in reexamination based on the sealing rings.

D. All-Elements Rule as Applied to the Stoll Patent

1. Sealing Rings

The panel held that the jury's verdict of infringement of Claim 1 of the Stoll patent under the doctrine of equivalents was in accordance with law and that there was substantial evidence to support that verdict. The panel noted that the issues as to the Stoll patent, with respect to the sealing rings, are not the same as for the Carroll patent. Specifically, the panel stated that the Stoll claimed element of the "first sealing rings" is associated with the additional function of the wiping of impurities to avert contamination of the magnets. SMC argued that when one of the sealing rings is absent this function is not performed.

The panel noted that under Warner-Jenkinson, the inquiry for the all-elements rule is "an analysis of the role played by each element in the context of the specific claim" and that no claimed element can be eliminated entirely. The panel found that there was substantial evidence, established by undisputed expert testimony, for the jury to find that the Stoll claim element of "first sealing rings" associated with the additional function of wiping away impurities was found in SMC's two-way sealing ring in combination with SMC's guide rings performing the wiping

function. Additionally the panel held that the undisputed testimony regarding the interchangeability of the ring structures and the substantial identity of function, way and result provided the substantial evidence necessary to sustain a verdict of infringement under the doctrine of equivalents.

2. Magnetizable Sleeve Material

The panel also found the cylindrical sleeve of SMC's device was made of an aluminum alloy that is not magnetizable. SMC argued that the magnetizable material was a separate claim element. The panel, however, agreed with Festo, which argued that Corning Glass Works v. Sumitomo Electric U.S.A. Inc. stands for the proposition that "a patentee is, for example, free to frame the issue of equivalency if it chooses, as equivalency to a combination of limitations." Corning Glass Works v. Sumitomo Electric U.S.A. Inc., 868 F.2d 1251, 1259 n.6, 9 U.S.P.Q.2d (BNA) 1962, 1968 n.6 (Fed. Cir. 1989). The panel reasoned that although a change of the material or properties of a component may defeat equivalency as a matter of fact, it does not bar access to the doctrine of equivalents as a matter of law. The panel concluded that although there was a factual dispute at trial regarding the equivalence of the aluminum alloy and the magnetizable material, there was substantial evidence for a jury to find in favor of Festo. SMC did not present data or test evidence on its behalf.

E. Prosecution History Estoppel as Applied to the Stoll Patent

The panel found that the Stoll application was filed in the U.S. as a counterpart to a German application. The prosecution history of the Stoll patent showed that there was no prior art rejection, and the only comment in the first U.S. Office Action was under 35 U.S.C. §112 regarding the method being unclear, and the objection that some claims were drafted in improper multiple dependent form. In response, Festo included in its independent Claim 1 the subject

matter relating to the sealing means and the magnetizable material from initially dependent claims. Festo provided no reason for making such amendments and submitted two German patents cited during examination of the corresponding German application, stating only that the subject matter of the present U.S. application was clearly distinguishable over these German patents.

SMC argued to the panel that by simply voluntarily amending the claims, for whatever reason, Festo is estopped or presumed to be estopped from relying on the doctrine of equivalents to find infringement for the amended claims. The panel held that this argument was not in accordance with the rulings of Warner-Jenkinson because the Supreme Court particularly directed that the presumption of estoppel is limited to amendments made for a limited set of reasons required during prosecution. 520 U.S. at 33, 117 S.Ct. at 1051, 41 U.S.P.Q.2d at 1873 (see 520 U.S. at 33-34, 117 S.Ct. at 1050-51, 41 U.S.P.Q.2d at 1872 for limited set of reasons of patentability). The panel held that the applicant's reference to the wiping function, in the letter accompanying the amendment, raises the issue of whether this amendment was made for reasons of patentability, or whether the Warner-Jenkinson presumption arises and can, or can not, be rebutted. The panel further stated that this issue was not before the district court, and the record is insufficient for appellate determination ab initio, therefore requiring remand to the district court.

III. EFFECT OF EN BANC DECISION ON PROSECUTION AND LITIGATION

A. Substantial Reason Related to Patentability

The Federal Circuit en banc decision could have a dramatic effect on the prosecution and litigation of patents in the future. As to the first en banc question, the phrase “substantial reason

related to patentability” has been typically interpreted to be limited to amendments made to overcome prior art under 35 U.S.C. §§102 and 103. If however, the court decides to now hold that “substantial reason to related to patentability” means amendments made to overcome any rejection by examiners there will be a substantial effect on future prosecution of patent applications.

One possible effect could be an increased resistance in making amendments to cure §112 rejections (e.g., to clarify claim language), which could delay and increase costs in prosecution. The increased delay could come as a result of practitioner’s arguing more rejections with examiners instead of simply amending the claim to cure rejections. For example, if in the past, an examiner rejected the claim because it was unclear or ambiguous a practitioner might simply amend the claim so as to clarify it and satisfy the examiner.

If “substantially related to patentability “ is now extended to include amendments made to cure §112 rejections, a practitioner would have little choice but to respond to the examiner’s rejection by arguing that the claim is clear and support that argument from definitions, descriptions and examples in the specification, in order to avoid prosecution history estoppel. To foresee these types of rejections is difficult as each examiner’s definition of unclear or ambiguous is slightly different. Therefore, not only will there be an increase in time due to arguing with examiners, there will be delays in the drafting of the original application as practitioners try to include increasingly more and longer definitions, descriptions, or examples.

More narrowly tailored claims could be another possible effect of an expansion of the definition of “substantially related to patentability.” As practitioners try to protect against any §112 rejections, they will probably start drafting more and more claims that are narrower than those presently used. These narrower claims are easier to support by the increased use of the

longer descriptions, definitions and examples used in the specification. The increased use of narrower claims would increase the time needed to prepare and examine an application, due to attorneys and clients wanting to disclose in the specification more operating ranges or elements for the claimed invention and more information, even if it is preliminary information, well-known in the art so that enablement and best-mode issues are completely avoided.

Further, if any amendment supports a prosecution history defense, litigation issues and costs will increase to resolve the estoppel effect of amendments that were not previously considered to give rise to estoppels.

B. Creation of Prosecution History Estoppel by Voluntary Amendments

In regard to the second en banc question, if the court holds that all amendments, even voluntary amendments, create prosecution history estoppel, the increased effect on future prosecution and litigation will not be as significant as compared to the increased effect of the expansion of the definition of “substantial reason related to patentability.” Prudent practitioners already are careful to state the reason for all amendments. Further, it has been previously held that arguments made by an applicant in an information disclosure statement or otherwise during prosecution may form the basis of an estoppel without regard to whether the argument was made in response to a rejection or the prior art was cited by the examiner. See e.g. Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1575 (Fed. Cir. 1997); Ekchian v. Home Depot, Inc., 104 F.3d 1299, 1304 (Fed. Cir. 1997); Hormone Research Found., Inc. v. Genentech, Inc., 904 F.2d 1558, 1564-65, 15 U.S.P.Q.2d 1039, 1044-45 (Fed. Cir. 1990); and Coleco Indus. v. U.S. Int’l Trade Comm’n, 573 F.2d 1247, 1257-58, 197 U.S.P.Q. 472, 478-80 (C.C.P.A. 1978). Thus, it would appear that if an amendment is made to overcome prior art, it should not make any difference whether the amendment was voluntary or in response to a rejection. All that matters

is whether “claim scope is relinquished during prosecution on grounds of patentability.” Merck & Co. v. Mylan Pharmaceuticals Inc., 51 U.S.P.Q.2d 1954, 1957 (Fed. Cir. September 3, 1999) (citing Warner-Jenkinson). Of course, prosecution history estoppel as to voluntary amendments will likely be more difficult to prove in litigation.

C. Range of Equivalents for Amended Claims

In regard to the third and fourth issues, the en banc holding by the Federal Circuit regarding the range of equivalents available for amendments that create both actual or presumed (due to no explanation for the amendment) prosecution history estoppel will have a substantial effect on future prosecution and litigation. While over the past years the range of allowed equivalents has been narrowed by the Federal Circuit’s decisions, a complete elimination of the doctrine of equivalents to amendments creating prosecution history estoppel would force practitioner’s to avoid amendments at all costs.

In order to avoid amendments, the time and cost needed to prepare the application would be significantly increased, as practitioners would either need to anticipate rejections before they were made and include detailed explanations that distinguish the invention over the closest prior art in the specification or draft entirely new claims that correspond to what would have been the amended claim while maintaining the original claims.

If practitioners try to anticipate rejections, then this will force them to draft claims narrower in scope than what is presently done. Practitioners will not easily be able to draft claims that go right up to but don’t include the prior art, as they will be unable or unwilling to risk eliminating all ranges of equivalents for amended claims in a future litigation if the original claims are rejected by examiners.

Should the Federal Circuit hold en banc that the doctrine of equivalents ends at the

amended claim language, resulting in likely increased prosecution costs, litigation costs would likely decrease because of the “brighter” line on what does and what does not fall within the “doctrine of equivalents.”

If on the other hand the court broadens the range of infringing devices or methods under the doctrine of equivalents to amended (voluntary or not) claims, this would allow practitioners to take a more aggressive approach to drafting. Originally filed claims would be able to go right up to the edge of the prior art and be amended with no remarks describing the reasons for the amendment unless the remarks were absolutely necessary to obtain an allowance.

Should the Federal Circuit hold en banc that the doctrine of equivalents does not end at the amended claim language, litigation costs would likely increase because of the less clear line on what does and what does not fall within the “doctrine of equivalents.”

D. An Infringement Finding in Festo Would Not Violate the All-Elements Rule in Warner-Jenkinson

The Federal Circuit en banc decision of non-infringement to the fifth *Festo* question would greatly effect future patent prosecution and litigation. Patent applicants would need to expressly describe in the specification, and possibly claim, virtually all possible embodiments or face being limited to patent protection for only the embodiments described and claimed. Competitors, like SMC in *Festo*, could rely on any substitute in the accused device or method without having to prove that the substitute was a substantial difference from the claimed element.

It appears that a finding of infringement of either patent claim in *Festo* would satisfy the all-elements rule in *Warner-Jenkinson*. As noted above, the claim at issue in the Carroll patent stated, “and a pair of resilient sealing rings situated at near opposite axial ends of the central mounting member and engaging the cylinder to effect a fluid-tight seal therewith.” The accused

infringing device used a single two-way sealing ring at the end of the central mounting member that contacts the pressure fluid thereby affecting a fluid-tight seal of the central mounting member. Warner-Jenkinson stressed determining what the role of the claim element was and then determining whether the alleged infringing device performed that role in substantially the same function, way and with substantially the same result. At trial, SMC did not dispute any of the evidence presented by Festo that the two-way sealing ring performs the same function as the pair of sealing rings, in substantially the same way and with the same result. Thus, based on the evidence, summary judgment for Festo is appropriate as it presented uncontroverted evidence meeting each one of the steps of Warner-Jenkinson's "all-elements" rule.

A holding of infringement of the Stoll patent would also support Warner-Jenkinson's "all-elements" rule. The issue of infringement of the Stoll patent was determined by a jury in the district court and the Federal Circuit's analysis of that jury decision is limited to whether the verdict was in accordance with the law and whether there was substantial evidence to support the jury's verdict. Since both sides presented substantial evidence in support of their positions, the remaining question is whether the jury was given the correct instructions regarding the law of the doctrine of equivalence.

The district court gave instructions consisting of "[l]iability for infringement requires that an accused device contain every limitation of a claim or its substantial equivalent" and "[i]t is insufficient for proof of infringement under the doctrine of equivalence that the accused devices are equivalent overall to the claimed invention." As found by the Festo panel, while these instructions do not contain the exact wording of the Warner-Jenkinson's "all-elements" rule, they do state the "all-elements" rule and its limitations in a direct manner understandable to a jury.

IV. ADVICE FOR PRACTITIONERS

A. **Claim Drafting**

Based on the panel decision in Festo, there are some methods that practitioners can draft claims that will be broadly interpreted. The Federal Circuit has indicated that it is going to accept a rationally defined functional limitation that is provided by the inventor. While the inclusion of the functional language may seem to limit claims, it may actually provide broader scope in some circumstances and therefore is more helpful than hurtful to the patentee.

Since the court indicated that it is going to accept the patentee's defined functional language, a broad functional claim will help insure that if the court applies the all-elements test to your claim language, the function of the element selected by the court will be the same function that the patentee ascribes to the claim element. Using the Carroll patent as an example, if the claim language had simply stated "and a pair of rings situated near opposite axial ends of the central mounting member and engaging the cylinder," the role of those rings as applied to the all-elements rule is then a question of fact and summary judgement not appropriate. The patentee then would have to go through a complete trial and prove that the function of the rings is to effect a fluid-tight seal and that the function of the allegedly infringing claim element performs that same role in order to meet the requirements of the all-elements rule in Warner-Jenkinson.

Regardless of the en banc decision in Festo, there may be several methods in which to use the functional language to expand the scope of your claimed invention. A first method might be to claim the function as a definition of the structure. For example with the disputed Festo claim, a possible rewording might look be "a central mounting member that affects a fluid-tight seal when engaging the cylinder." This type of drafting has the benefit of being more general

then the original claim in that an element, namely the pair of rings is eliminated. A claim drafted such as this, would probably not have affected the panel decision in Festo, but might have a broader range of equivalents.

A second method might be a complete elimination of the literal structural component in the independent claim by invoking the benefit of 35 U.S.C. §112, paragraph 6. The independent claim can then be followed the by dependent claims that further specify the structure. In Festo, for example, the disputed language in the Carroll patent was “and a pair of resilient sealing rings situated near opposite axial ends of the central mounting member and engaging the cylinder to effect a fluid-tight seal therewith.” A possible rewording of this language might be a “and a means of effecting a fluid-tight seal between the central mounting member and the cylinder when said central mounting member engages said cylinder,” followed by a dependent claim of “the structure of independent claim 1 wherein the means of effecting a fluid-tight seal between the central mounting member and the cylinder when said central mounting member engages said cylinder is selected from the group consisting of a pair of sealing rings,”

However, drafting a means plus function claim such as this has drawbacks. The courts in the past few years have greatly diminished the scope of what is an equivalent means of performing a function. To combat this diminished scope, practitioners choosing to write claims in this manner will have to expand the depth of their specifications in order to include all presently known means, but still run the risk of new, non-equivalent means being developed in the future that will not infringe.

A third solution may be in being your own lexicographer and simply defining terms in the specification to include all necessary elements. Using the Carroll patent again, the claim could have read “A device for moving articles, which comprises a seal interplaced between

the central mounting member and the cylinder when the member engages said cylinder;” however, the specification would then have to define the term “seal.” In this case a definition in the specification might be “the term seal as used in this invention is any size, shape, orientation, or composition of material that prevents the flow of fluid from one region to the other.”

B. Avoiding Estoppel Issues

Regardless of how the Federal Circuit en banc decides Festo, the general advice of avoiding amendments as much as possible is still a preferred way of avoiding prosecution estoppel issues. While amendments that are not made to overcome prior art do not create prosecution history estoppel under current law, a future thinking practitioner would be wise to avoid them.

C. Litigation Lessons

As noted in Festo, the defendant SMC did not challenge the patent owner’s evidence of technological equivalency. More specifically, SMC did not dispute that its two-way sealing ring performed the function of providing a fluid-tight seal, in the same way, with the same result, as the pair of sealing rings claimed in the Carroll patent. Further, SMC apparently did not point to any prior art, either cited or not cited during prosecution of the Carroll patent, that showed a two-way sealing ring like its accused structure.

Similarly, as to the Stoll patent, SMC did not present any contrary evidence or witnesses to Festo’s mechanical expert who testified to the facts of interchangeability of the ring structures, and the substantial identity of function, way, and result. Regarding the claimed magnetizable material of the sleeve, Festo’s physics and magnetism expert explained the purpose of the

material and his tests showed that the SMC sleeve served substantially the same purpose “the same way with the same result.” Further, SMC presented no data or test evidence on its behalf at trial, but only challenged the significance of Festo’s expert. It appears that SMC did not point to any prior art, either cited or not cited during prosecution of the Stoll patent, that showed a sleeve like that in its accused structure.

The above reasoning and analysis by the panel in Festo, regardless of the outcome en banc, is that an accused infringer better have evidence of that its accused structure has substantial differences in function, way, and result, and cannot avoid liability based on any difference.

Similarly, an accused infringer better have evidence that the difference(s) in the accused structure from the claimed invention was known prior to the invention of the asserted patent in order to have a persuasive argument that prosecution history estoppel and/or the prior art bars a finding of infringement under the doctrine of equivalents.