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# FILE WRAPPER ESTOPPEL AND THE FEDERAL CIRCUIT

GLENN K. BEATON\*

## I. INTRODUCTION

File wrapper estoppel is a doctrine that limits the extent to which a patent can be broadened by the doctrine of equivalents. This article reviews the policy of file wrapper estoppel and considers the application of that policy by the United States Court of Appeals for the Federal Circuit (Federal Circuit) to a few typical fact patterns. The conclusion is that a few recent Federal Circuit decisions have undermined file wrapper estoppel in a way that is detrimental to the patent system.

The breadth of a patent is measured by what infringes it. Many different devices will infringe broad patents while relatively few will infringe narrow patents. Whether a given device infringes a patent is determined by reference to the formal claims. Under patent law, every element of a claim must be present in a device for the device to infringe the claim literally. Therefore, under patent law claim interpretation, a claim with elements A, B, and C is broader than a claim with elements A, B, C, and D. This is because a device with only elements A, B, and C will infringe the first claim but not the second because it lacks element D.

The doctrine of equivalents states that a device may infringe a patent claim, even if it lacks an element of the claim, if it contains a substitute element that is "equivalent" to the missing element.<sup>1</sup> Therefore, a device with elements A, B, and C may infringe a claim with elements A, B, C, and D if the device contains a substitute element that is equivalent to D. The substitute element is equivalent to the missing element if it performs substantially the same function in substantially the same way to achieve the same result.<sup>2</sup>

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1. See generally *Graver Tank & Mfg. Co. v. Linde Air Prod. Co.*, 339 U.S. 605 (1950). The Court of Appeals for the Federal Circuit (hereinafter the "federal circuit") appeared at one time to apply equivalents to entire claims rather than only to elements of claims, but now seems to have withdrawn from that expansive approach. Compare *Hughes Aircraft Co. v. United States*, 717 F.2d 1351 (Fed. Cir. 1983) with *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528 (Fed. Cir. 1987). The confusion that resulted from those two competing approaches is well documented. See *Valmont Indus., Inc. v. Reinke Mfg. Co.*, 14 U.S.P.Q.2d (BNA) 1374, 1380 (D.C. Neb. 1990); Harris, *Three Ambiguities in the Doctrine of Equivalents*, 69 J. PAT. TRADEMARK & OFF. SOC'Y 91 (1987); Hartman, *Doctrine of Equivalents*, 70 J. PAT. TRADEMARK & OFF. SOC'Y 511 (1988); Nieman, *The Federal Circuit Resolves Ambiguities in the Doctrine of Equivalents*, 70 J. PAT. TRADEMARK & OFF. SOC'Y 153 (1988).

2. *Graver Tank*, 339 U.S. at 608. It is not clear why the doctrine was originally enunciated so that the function and way must only be "substantially" the same, while the result must apparently be exactly the same. A number of cases have allowed the result, function and the way to be only substantially the same. See, e.g., *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 869 (Fed. Cir. 1985); *Atlas Powder Co. v. E.I. DuPont DeNemours & Co.*, 750 F.2d 1569, 1579 (Fed. Cir. 1984).

There are two limitations on the doctrine of equivalents. The first limitation is that equivalents cannot be used to expand the claims to cover the prior art.<sup>3</sup> The other limitation, the subject of this article, is file wrapper estoppel.<sup>4</sup> The law of file wrapper estoppel is unpredictable. In its broadest formulation, file wrapper estoppel has been held to mean that the patentee cannot use equivalents to expand the claim scope in an infringement action in a way that is inconsistent with his position on claim scope before the Patent Office as reflected in the patent file wrapper.<sup>5</sup> In its narrowest formulation, file wrapper estoppel has been held to mean that a patentee cannot use the doctrine of equivalents to expand the claim scope to embrace the prior art.<sup>6</sup> The correct formulation of file wrapper estoppel is somewhere between these two extremes.

## II. POLICY CONSIDERATIONS

File wrapper estoppel under the 1952 Patent Act<sup>7</sup> goes back at least as far as *Graham v. John Deere*,<sup>8</sup> where the Supreme Court stated:

It is, of course, well settled that an invention is construed not only in the light of the claims, but also with reference to the file wrapper or prosecution history in the Patent Office. Claims as allowed must be read and interpreted with reference to rejected ones and to the state of the prior art; and claims that have been narrowed in order to obtain the issuance of a patent by distinguishing the prior art cannot be sustained to cover that which was previously by limitation eliminated from the patent.<sup>9</sup>

At least three justifications can be advanced for this rule that came to be called file wrapper estoppel, although these justifications are rarely articulated. The first justification is the same as for any rule of estoppel: it is inequitable to allow a person to take inconsistent positions as circumstances suit him.<sup>10</sup> This justification parallels the justification for

3. See *Loctite*, 781 F.2d at 870; *Carman Indus., Inc. v. Wahl*, 724 F.2d 932, 942 (Fed. Cir. 1983). See *infra* notes 19 and 36 and accompanying text.

4. File wrapper estoppel is now sometimes called "prosecution history estoppel." Compare *Allied Iron Co. v. Foundry Metal Specialties, Inc.*, 217 U.S.P.Q. (BNA) 1017 (E.D. Mich. 1981) with *Hughes Aircraft*, 717 F.2d 1351.

5. See, e.g., *Allied Iron*, 217 U.S.P.Q. (BNA) at 1019 ("Stated in other words, file wrapper estoppel prevents a party from taking inconsistent positions in different transactions.") (dicta); *Hughes Aircraft*, 717 F.2d at 1362 ("[File wrapper] estoppel applies to claim amendments to overcome rejections based on prior art and to arguments submitted to obtain the patent.") (citing *Coleco Indus., Inc. v. ITC*, 573 F.2d 1247, 1257 (C.C.P.A. 1978) and *Dwyer v. United States*, 357 F.2d 978, 984 (Ct. Cl. 1966)).

6. See, e.g., *Hughes*, 717 F.2d at 1351.

7. 35 U.S.C. §§ 1-376 (1988).

8. 383 U.S. 1 (1966).

9. *Id.* at 33 (citing *Powers-Kennedy Co. v. Concrete Co.*, 282 U.S. 175, 185-86 (1930); *Crawford v. Heysinger*, 123 U.S. 589 (1887); *Hogg v. Emerson*, 52 U.S. (11 How.) 587 (1850)).

10. See *Black & Decker, Inc. v. Hoover Serv. Center*, 886 F.2d 1285, 1295 (Fed. Cir. 1989) ("The doctrines of prosecution history estoppel and equivalents are equitable in nature, requiring courts to engage in a balancing analysis 'guided by equitable and public policy principles underlying the doctrines involved and by the facts of the particular case.'" (quoting *Loctite Corp. v. Universal Ltd.*, 781 F.2d 861, 871 n.7 (Fed. Cir. 1985)));

the doctrine of equivalents. The often quoted *Graver Tank* rationale for equivalents is that:

The essence of the doctrine is that one may not practice a fraud on a patent. . . . 'To temper unsparing logic and prevent an infringer from stealing the benefit of an invention' a patentee may invoke this doctrine to proceed against the producer of a device 'if it performs substantially the same function in substantially the same way to obtain the same result.'<sup>11</sup>

If the roots of equivalency are in equity, and the *Graver Tank* language of "fraud" and "stealing" suggest that it is, then it seems natural that the roots of the file wrapper estoppel limitation to equivalency should be there too. However, neither the equitable formulations for equivalency nor the equitable formulations for its limitation, file wrapper estoppel, provide much guidance in determining exactly where one has crossed the line from equivalency into file wrapper estoppel. Moreover, equitable notions against taking inconsistent positions do not seem sufficient alone to justify the file wrapper estoppel rule. It is common in the law to allow a party to take inconsistent positions, such as pleading in the alternative.<sup>12</sup>

A second justification given for file wrapper estoppel relates to the concept that the scope of the patent should correspond to the scope intended by the patentee and the Patent Office. This justification is analogous to the rule that a contract should be construed in accordance with the intent of the parties at the time it was entered into or the rule that legislation should be construed in accordance with the intent of the legislators. Reviewing the file wrapper in this sense is a logical extension of the ancient practice of reviewing the specification and the drawings;<sup>13</sup> the reviewer is merely ascertaining the intended meaning of the claims.

If the "intent" being ascertained is that of the Patent Office rather than the patentee, then this is a legitimate justification. The presumption of validity that attaches to patents based on the specialized knowledge of the Patent Office<sup>14</sup> should apply only to that which the Patent Office intended to fall within the patent. However, if this is the justification for file wrapper estoppel, then file wrapper estoppel should not prevent the doctrine of equivalents from expanding the claim scope to

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*Mannesmann Demag Corp. v. Engineered Metal Prod. Co.*, 793 F.2d 1279, 1284 (Fed. Cir. 1986) ("The doctrine of prosecution history estoppel is 'an equitable tool for determining the permissible scope of patent claims' as against a specific structure accused of infringement." (quoting *Builders Concrete, Inc. v. Bremerton Concrete Prod. Co.*, 757 F.2d 255, 258 (Fed. Cir. 1985)); *Standard Oil Co. v. American Cyanamid Co.*, 585 F. Supp. 1481, 1489 (E.D. La. 1984) (Failure to apply file wrapper estoppel would be "unrealistic and fundamentally unfair."); *POMEROY'S EQUITY JURISPRUDENCE* §§ 801-821 (5th ed. 1942).

11. *Graver Tank & Mfg. Co. v. Linde Air Prod. Co.*, 339 U.S. 605, 608 (1950) (quoting *Sanitary Refrig. Co. v. Winters*, 280 U.S. 30, 42 (1929)).

12. See Fed. R. Civ. P. Rule 8(e); *MOORE'S FEDERAL PRACTICE* § 8.32 (1990).

13. *Hogg v. Emerson*, 52 U.S. (11 How.) 587, 606 (1850) ("The Court did right, too, in holding to the propriety of looking to the whole specification, and also to the drawings, for explanation of any thing obscure.").

14. 35 U.S.C. § 282 (1988).

cover that which the Patent Office did not intend the claim scope to cover; it should merely remove the presumption of validity from that expanded claim scope. It is always possible that the patentee is entitled to a claim scope broadened by the doctrine of equivalents even if the Patent Office did not intend to allow that broadened claim scope. In fact, it is possible that the patentee is entitled to a claim scope broadened by the doctrine of equivalents even if the Patent Office affirmatively intended not to allow that broadened claim scope. The Patent Office makes mistakes, and the patentee should not be penalized for those mistakes. Courts should correct the Patent Office's mistakes, although the corrections should not be granted the presumption of validity that is based on the Patent Office's specialized knowledge.

On the other hand, if the intent being ascertained is really the intent of the patentee rather than the Patent Office, as the cases suggest,<sup>15</sup> then this second justification for file wrapper estoppel carries little weight. Analogizing the patentee and the Patent Office to parties to a contract has little validity in this context. The patentee is not a party to a contract whose intent should control the interpretation of the contract. The patentee is a person receiving his statutory reward from the government for developing and disclosing an advancement in the sciences and useful arts. As such, the patentee presumably "intends" that his reward be as great as possible and that the limits to his reward be as small as possible. He does not "intend" to give up any claim scope at all; he only "intends" that the patent be issued. There is no negotiation between the patentee and the Patent Office in the contract sense because neither has any consideration to offer. The patentee has already given up his consideration, for he has already developed his advancement in the sciences and useful arts. The Patent Office never had any consideration to begin with, because it has no discretion to give anything other than what the Patent Act requires it to give. For the same reason, the analogy between the Patent Office issuing a patent and legislators enacting legislation breaks down; unlike legislators, the Patent Office has no discretion.

One might argue that, although the patentee has already developed his advancement, he has not yet disclosed it until the patent issues. The patentee, therefore, still has some consideration to give in negotiating the scope of the claims with the Patent Office because he could abandon the application and maintain it as a trade secret. As a practical matter, this argument generally fails because trade secret protection is inferior to even narrow patent protection for most inventions. Further, trade secret protection may be lost by the time the patentee is in a position to threaten to abandon the application, because the invention has already been commercialized, published in foreign applications, or otherwise

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15. See *DuPont v. Phillips Petroleum Co.*, 849 F.2d 1430, 1438 (Fed. Cir. 1988) ("[A]rguments made during prosecution shed light on what the applicant meant by its various terms."); *Hughes Aircraft Co. v. United States*, 717 F.2d 1351, 1363 (Fed. Cir. 1983) ("Depending on the nature and purpose of an amendment, it may have a limiting effect within a spectrum ranging from great to small to zero."); cf. 4 D. CHISUM, PATENTS § 18.05 [1] (2d ed. 1990) (referring to "mutually held construction" of the claims).

disclosed. Finally, the patentee's threat to abandon the application is an idle one; the Patent Office does not care if an application is abandoned and its contents are kept as trade secrets.

The third justification for file wrapper estoppel is a practical one based on the public's need to determine the claim scope of a patent. The doctrine of equivalents frustrates the public's ability to rely on the claims in determining the breadth of a patent, because it requires the public to consider matters outside the four corners of the patent in making that determination. File wrapper estoppel says that if the doctrine of equivalents requires the public to consider matters outside the four corners of the patent in determining the patentee's rights, then the public should be able to rely on the patentee's own interpretation of those matters. This justification, similar to the detrimental reliance aspect of promissory estoppel in equity,<sup>16</sup> was expressed well by the Federal Circuit in *Texas Instruments, Inc. v. United States International Trade Commission*:<sup>17</sup>

The determination of equivalency by its nature is inimical to the basic precept of patent law that the claims are the measure of the grant. This constitutes a deviation from the need of the public to know the precise legal limits of patent protection without recourse to judicial ruling. We caution that the incentive to innovation that flows from "inventing around" an adversely held patent must be preserved.<sup>18</sup>

The principle objection to this justification is that it is circular. This justification for the rule of file wrapper estoppel is that the public relies on the file wrapper; but the public would not rely on the file wrapper if there were no rule of file wrapper estoppel. However, it is not exactly circular, for the fact is that the public looks at file wrappers for a variety of reasons, and always will, even without the rule of file wrapper estoppel. Inevitably, inferences about the claim scope will be drawn from the file wrapper, and the public should be entitled to rely on those inferences if they are fairly drawn. Therefore, reliance by the public as a justification for file wrapper estoppel has considerable weight. In combination with the other two justifications which have less weight, it suggests that as long as the doctrine of equivalents is part of patent law, file wrapper estoppel should be a limitation on it.<sup>19</sup>

The important point to learn from a review of the policy considera-

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16. See *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528 (Fed. Cir. 1987); *Texas Instruments, Inc. v. United States Int'l. Trade Comm'n*, 805 F.2d 1558 (Fed. Cir. 1986); *Prodyne Enter., Inc. v. Julie Pomerantz, Inc.*, 743 F.2d 1581 (Fed. Cir. 1984); *Kinzenbaw v. Deere & Co.*, 741 F.2d 383 (Fed. Cir. 1984), *cert. denied*, 470 U.S. 1004 (1985); POMEROY'S EQUITY JURISPRUDENCE § 805 (5th ed. 1942). Clearly, however, file wrapper estoppel applies even if the particular defendant never saw the file wrapper.

17. 805 F.2d 1558 (Fed. Cir. 1986).

18. *Id.* at 1572.

19. One might argue that the doctrine of equivalents is used less now than it once was, because now 35 U.S.C. § 112(6) allows expansive functional elements in place of narrow structural elements in a claim. For a discussion of the evolution of the doctrine of equivalents and the interplay between the doctrine and § 112(6), see Hartman, *Doctrine of Equivalents*, 70 J. PAT. TRADEMARK & OFF. SOC'Y 511 (1988).

tions is that both the doctrine of equivalents and file wrapper estoppel are rules of equity. As such, they do not lend themselves to inflexible rules of application. Like any rule of equity, they depend on the subtle weighing of a number of different factors. Some of the factors that may be present in some typical circumstances are discussed in the following section.

Before leaving the discussion of policy considerations, it should be noted that there is one argument that is clearly not a justification for file wrapper estoppel. That argument is that file wrapper estoppel is necessary to prevent the doctrine of equivalents from expanding the claims to cover the prior art. The doctrine of equivalents certainly cannot be used to expand the claims to cover the prior art, but this is a separate limitation on the doctrine of equivalents that has nothing to do with file wrapper estoppel. This is a limitation imposed by section 102 of the Patent Act;<sup>20</sup> claims that are expanded to embrace the prior art are invalid under the rules of anticipation. The better-reasoned cases are explicit in stating that the file wrapper estoppel limitation on the doctrine of equivalents is distinct from the section 102 limitation on the doctrine of equivalents.<sup>21</sup>

This misjustification for file wrapper estoppel has spawned some unfortunate case law, some of which is mentioned in the fact patterns discussed below. Briefly, these cases seem to state that the only limitation on the doctrine of equivalents is that the claims cannot be expanded to cover the prior art. If the allegedly infringing device is not actually in the prior art, then according to these cases file wrapper estoppel will never preclude a holding of infringement by equivalents. Under these cases, there is a section 102 limitation on equivalents, but there is no separate file wrapper estoppel limitation on equivalents.

### III. FACT PATTERNS

Discussed below are several typical fact patterns in which file wrapper estoppel may be an issue. The discussion proceeds from fact patterns where file wrapper estoppel is more likely to apply to those where file wrapper estoppel is less likely to apply.

#### A. *Amendments Necessary to Overcome Prior Art That Would Have Barred the Claim*

The first and easiest fact pattern involving the application of file wrapper estoppel is one where the patentee narrows his claim to overcome prior art that would have barred the broader claim. In this case,

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20. 35 U.S.C. § 102 (1988).

21. See *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 870 (Fed. Cir. 1985); *Carman Industries, Inc. v. Wahl*, 724 F.2d 932, 942 (Fed. Cir. 1983); *Sarkisian v. Sign-Up Corp.*, 220 U.S.P.Q. (BNA) 802, 806 (D. Or. 1983). See also *Haworth v. Steelcase, Inc.*, 685 F. Supp. 1422, 1440 (W.D. Mich. 1988) ("The alleged infringer need not be practicing the prior art for the doctrine of equivalents to be barred." (quoting *Texas Instruments*, 805 F.2d at 1558)), *cert. denied*, 490 U.S. 1067 (1989).

the patentee should not be allowed to expand the claim scope by the doctrine of equivalents in an infringement action to recover the scope surrendered before the Patent Office. However, as discussed above, this is not an application of the file wrapper estoppel limitation to equivalents, but is an application of the section 102 limitation to equivalents.<sup>22</sup> The ambiguous judge-made rules of file wrapper estoppel are not necessary when the Patent Act itself supplies concrete and often-construed rules of anticipation under section 102.

Patent rights are sometimes analogized to property rights. Under that analogy, there is no need to resort to subtle and complex principles of equity such as estoppel to arrive at the holding that the metes and bounds description of property (the claim scope) cannot be expanded to cover that which is clearly owned by someone else (the prior art). Application of estoppel should be reserved for hard cases where the disputed territory is neither covered by the literal metes and bounds (the claims) nor owned by someone else (the prior art).

#### B. *Amendments to Overcome Prior Art Rejections That Would Not Have Barred the Claim*

The answer to the question of whether file wrapper estoppel applies is less certain when the patentee narrows a claim to overcome a prior art rejection which was improper or when the patentee amends his claim more than necessary to avoid a proper prior art rejection. The patentee clearly cannot use equivalents to recover the claim scope portion that was necessary to surrender to avoid the prior art, for that would violate the section 102 limitation on equivalents and would render the claim invalid. But may the patentee recover the claim scope portion that was surrendered, but was not necessary to surrender, to avoid the prior art?

File wrapper estoppel may bar the patentee from recovering the surrendered claim scope in these circumstances.<sup>23</sup> Otherwise, file wrapper estoppel only prevents the patentee from recovering claim scope that would have been barred by the prior art. File wrapper estoppel would then be meaningless, for it would be superfluous to section 102 in merely preventing the patentee from recovering a claim scope that is invalid as anticipated.

Whether file wrapper estoppel actually applies in such circumstances will depend, of course, on a number of equitable factors. Some of these factors will be peculiar to the particular case under consideration, but some are common to all such cases. Militating in favor of file

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22. See *Carmen Industries*, 724 F. 2d 932; *Sarkisian*, 220 U.S.P.Q. (BNA) 802.

23. See *Fortel Corp. v. Phone-mate, Inc.*, 825 F.2d 1577 (Fed. Cir. 1987); *Prodyne Enter., Inc. v. Julie Pomerantz, Inc.*, 743 F.2d 1581 (Fed. Cir. 1984); *Kinzenbaw v. Deere & Co.*, 741 F.2d 383 (Fed. Cir. 1984), cert. denied, 470 U.S. 1004 (1985); *Pero v. General Motors Corp.*, 230 U.S.P.Q. (BNA) 719 (E.D. Mich. 1986). But see *Hi-Life Prods., Inc. v. American Natural Water-Mattress Corp.*, 842 F.2d 323 (Fed. Cir. 1988); *Great Northern Corp. v. Davis Core & Pad Co.*, 782 F.2d 159 (Fed. Cir. 1986); *Datascope Corp. v. SMEC, Inc.*, 776 F.2d 320 (Fed. Cir. 1985); *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 721 F. Supp. 28 (D. Conn. 1989).

wrapper estoppel is that the public's effort to determine the scope of the patent in the absence of file wrapper estoppel could become difficult because it could require an extensive review of all relevant prior art to determine whether the rejection that precipitated the claim amendment was erroneous and whether the patentee surrendered more claim scope than was necessary. Also, it is difficult to sympathize with the patentee who erroneously surrendered more claim scope than was necessary to avoid the prior art. The patentee already had ample opportunity to dispute an erroneous rejection by reviewing the prior art himself, by communicating his position to the Patent Office, and by appealing the Patent Office decision if necessary. Patent Office procedures allow amendment, argument, and appeal precisely for this purpose. There would have to be strong reasons to allow the patentee a second opportunity to expand the patent monopoly, especially when the result is to deceive the public as to the scope of his patent.<sup>24</sup>

The unpredictable results of an inflexible rule that file wrapper estoppel does not limit equivalents if the rejections were improper or the amendment was too limiting are illustrated in *Hughes Aircraft Co. v. United States*.<sup>25</sup> The patentee in *Hughes Aircraft* amended the claims to overcome certain prior art cited by the examiner. For the dissent, this presented a classic case of file wrapper estoppel: "The accused S/E spacecraft do not contain those elements which were expressly included to overcome prior art. . . . An infringing article must embody the two elements I have mentioned, either literally or through an appropriate equivalent. Those elements show the invention which was patented."<sup>26</sup>

The majority asserted that this application of estoppel, to which patent attorneys and courts had adhered for generations, was "wooden" and amounted to a "view that virtually any amendment of the claims creates a 'file wrapper estoppel' effective to bar all resort to the doctrine of equivalents, and to confine patentee 'strictly to the letter of the limited claims granted.'"<sup>27</sup> The majority rejected that view and asserted

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24. See *Texas Instruments*, 805 F.2d at 1558; *Haworth*, 685 F. Supp. at 1441 ("Indeed, a fundamental purpose of the claims is to precisely demarcate where others may or may not endeavor." (quoting *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (1938))).

25. 717 F.2d 1351 (Fed. Cir. 1983). *Hughes* is currently somewhat discredited for its application of the "entirety" approach to equivalents. See *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 941 (Fed. Cir. 1987) ("The majority's departure from our recent precedents is illustrated by an examination of [*Hughes*] which is clearly being overruled by the majority, despite not even being mentioned in its opinion.") (Bennet, J., dissenting), cert. denied, 485 U.S. 961 (1988); *Kinzenbaw*, 741 F.2d 383. But see *Sun Studs, Inc. v. ATA Equip. Leasing, Inc.*, 872 F.2d 978 (Fed. Cir. 1989). However, *Hughes* is still cited frequently for its view of file wrapper estoppel. See, e.g., *Black & Decker, Inc. v. Hoover Serv. Center*, 886 F.2d 1285 (Fed. Cir. 1989); *LaBounty Mfg., Inc. v. ITC*, 867 F.2d 1572 (Fed. Cir. 1989).

26. *Hughes*, 717 F.2d at 1366. The majority disregarded the dissent's reasoning that each element must be present for there to be infringement with the "entirety" test. Under that test, equivalents is applied "to the entirety of the accused S/E spacecraft." *Id.* at 1363-64.

27. *Id.* at 1362 (citing *Nationwide Chemical Corp. v. Wright*, 584 F.2d 714, 718-19 (5th Cir. 1978)); *Ekco Products Co. v. Chicago Metallic Mfg. Co.*, 347 F.2d 453, 455 (7th Cir. 1965).

that the Supreme Court had rejected it also.<sup>28</sup>

The *Hughes* majority mischaracterized the dissent, apparently so that the holding in *Hughes* would appear consistent with Supreme Court precedent or at least *Graver Tank* dicta. The dissent did not assert that any claim amendment limits the patentee to the literal scope of the claim. Such a holding would not only be wooden, but would be wrong because it would prevent the patentee from relying on equivalents to broaden the claim in ways unrelated to the amendment. Instead, the dissent merely asserted the general rule that if a patentee surrenders a claim scope to avoid prior art during the prosecution, then there must be strong countervailing reasons to allow him to recover that same claim scope in litigation.<sup>29</sup> In view of the non-pioneering status of the invention in this case, there were no such strong reasons.<sup>30</sup>

The *Hughes* majority diverged from the long-standing rule of file wrapper estoppel by shifting the focus from the amendment itself and the other legitimate equitable considerations, to the prior art that precipitated the amendment:

The government is not claiming that its S/E spacecraft are built and operated in accord with the prior art, or that it is merely following the teachings of [the prior art]. If it had followed those teachings in constructing its S/E spacecraft, there is no question that the range of equivalents to which [the patent] is entitled could not be broad enough to encompass such spacecraft.<sup>31</sup>

The majority's statement suggests that the doctrine of equivalents cannot be used to broaden the claims to encompass the prior art. That statement merely restates the rule that section 102 invalidates claims that read on the prior art. The question remains: What is the effect of the amendment to the claims? According to *Hughes*, the answer is that the amendment to the claims has no effect because the claims themselves are no longer important. The court proceeds to ignore the claims and to construct its own fictitious claims.<sup>32</sup> The court then holds that the fictitious claims were infringed (which was unfortunate for the de-

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28. *Hughes*, 717 F.2d at 1362.

29. See, e.g., *Keystone Driller Co. v. Northwest Eng'g Corp.*, 294 U.S. 42, 48 (1935); *Borg-Warner Corp. v. Paragon Gear Works, Inc.*, 355 F.2d 400, 406 (1st Cir. 1965).

30. *Hughes*, 717 F.2d at 1366.

31. *Hughes*, 717 F.2d at 1362.

32. *Id.* at 1364.

There are striking overall similarities between Williams' claimed satellite and the S/E spacecraft: (1) each is spin-stabilized; (2) each contains a jet on the periphery, connected by a valve to a tank containing fluid for expulsion substantially parallel to the spin axis; (3) each employs sun sensors to sense ISA position; (4) each requires knowledge of orientation relative to a fixed external coordinate system; (5) each contains radio equipment for communicating with the ground; (6) each transmits spin rate and sun angle information to a ground crew; and (7) in each, jet firing is synchronized with ISA position to effect controlled precession and thus to achieve a desired orientation. . . . Clearly, the S/E spacecraft are much closer to Williams' satellite than they are to [the prior art] space vehicle. It is clear also that, in constructing its S/E spacecraft, the government followed the teachings of Williams' much more than it did those of [the prior art].

*Id.* While the majority prefaces this list of comparisons with a reference to Williams'

fendant and the rest of the public that had lacked the prescience to predict the court's fictitious claims and had instead relied on the actual claims).

*Hughes* apparently holds that if a fictitious claim can be constructed to establish literal infringement, and the fictitious claim is not invalid under section 102, then there is equivalence. This rule implies that not only do amendments to the claims have no effect, but the claims themselves also have no effect.

It should be noted in passing that formulating fictitious claims is not necessarily a bad approach to equivalents,<sup>33</sup> but the wisdom of that approach is beyond the scope of this article. For purposes of this article, the point is that if fictitious claims are to be the approach, they are subject to both section 102 and file wrapper estoppel limitations. If the fictitious claims read on the prior art, then they should be disallowed under section 102. If the fictitious claims are inconsistent with the file wrapper, then they should be disallowed under file wrapper estoppel if the equitable factors so dictate.

Notwithstanding the general erosion of *Hughes*, some courts continue to adhere to the notion that the only limitation to the doctrine of equivalents is that the claims cannot be expanded to read on the prior art. In *Black & Decker, Inc. v. Hoover Service Center*,<sup>34</sup> another opinion by the author of *Hughes*, the court extravagantly criticized the district court opinion that denied a motion for preliminary injunction on file wrapper estoppel grounds. In response to the district court's statement that a particular limiting amendment to overcome prior art estopped the patentee from asserting the doctrine of equivalents to expand the claims beyond the limitation, the court said:

The amendment cited by the [district] court would be fatal to a range of equivalents that would encompass (the prior art) or a similar device . . . ; it would not be 'fatal to application of the doctrine itself.' Considering that virtually every patent application is amended, acceptance of the [district] court's statement as a proper application of prosecution history would read the doctrine of equivalents out of the law.<sup>35</sup>

Even if the district court had adapted an inflexible rule that the patentee could never recover a claim scope given up by amendment (and it is not clear that it did adopt such a rule), such a rule still does not read the doctrine of equivalents out of the law. Although it is true that most claims are amended, not all claim limitations arise by amendment; in

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*claimed* satellite, the comparison is not with the claims at all, for it ignores at least three elements in the claim. *Id.* at 1366 (Davis, J., dissenting).

33. See, e.g., *Insta-Foam Prod., Inc. v. Universal Foam Sys., Inc.*, 906 F.2d 698 (Fed. Cir. 1990); *Wilson Sporting Goods Co. v. David Geoffrey & Assoc.*, 904 F.2d 677 (Fed. Cir. 1990).

34. 886 F.2d 1285 (Fed. Cir. 1989).

35. *Id.* at 1295. (quoting *LaBounty Mfg., Inc. v. Dudley Shearing*, 867 F.2d 1572, 1576 (Fed. Cir. 1989)).

fact, most claim limitations are in the claims from the outset. The doctrine of equivalents would still apply to those limitations.

It is ironic that the district court is falsely accused of reading equivalents out of the law, for that is precisely what the Federal Circuit proceeds to do to file wrapper estoppel in *Black & Decker*. The Federal Circuit's analysis was similar to the formulation of fictitious claims in *Hughes*. The court made a comparison showing that the claimed invention and the infringing device were similar in ways that did not read on the prior art. Therefore, there was infringement by equivalents. The prosecution history is irrelevant in this analysis.

The language of the opinion is more subtle than that, duly citing *Hughes* and *Loctite* for the propositions that:

[t]he doctrines of prosecution history estoppel and equivalents are equitable in nature, requiring courts to engage in a balancing analysis 'guided by equitable and public policy principles underlying the doctrines involved and by the facts of the particular case.' Hence this court has held that the mere fact of amendment does not necessarily preclude application of the latter doctrine, pointing out that an amendment may result in a limiting effect on the range of equivalents 'within a spectrum ranging from great to small to zero.'<sup>36</sup>

Notwithstanding this language suggesting a sensitive weighing of the equitable considerations, the answers to these questions are irrelevant according to the analysis actually applied by the court. The only relevant issue in the court's analysis is whether the equivalent claim reads on the prior art. If it does not, this court says there can be infringement by equivalents, regardless of the prosecution history.

### C. *Amendments for Purposes Other Than to Overcome Prior Art*

The question here is whether file wrapper estoppel should apply to limit application of the doctrine of equivalents when the claims were amended for some reason other than a prior art rejection, such as a section 112<sup>37</sup> rejection. In principle, one can argue that file wrapper estoppel should not apply in such circumstances. The patentee made no admission concerning the extent of his improvement over the prior art, and so he cannot be estopped from expanding the scope of his claims. On the other hand, it may be difficult for the public to determine the purpose of an amendment in the context of an infringement analysis. Often there are multiple purposes and sometimes the purpose is not apparent from the file wrapper without deposing the prosecuting patent attorney, the applicant, or the examiner. Further, patent attorneys sometimes amend a claim to avoid prior art under the pretense of some other purpose. Encouraging this practice does nothing to advance the sciences and useful arts.

The cases occasionally assert that the purpose of an amendment

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36. *Id.*

37. 35 U.S.C. § 112 (1988).

was merely to make the claim "more definite" rather than to narrow it, and that therefore file wrapper estoppel should not apply.<sup>38</sup> An amendment may perhaps make a claim more definite without narrowing it if the amendment has language with the effect of narrowing certain limitations while broadening others. Unfortunately, a few cases have held that file wrapper did not apply because an amendment merely made a claim more definite when, in fact, the amendment clearly narrowed the claim. For example, in the *Andrew*<sup>39</sup> case the court found that a phrase was a "material limitation because it was added during prosecution" and, therefore, it precluded literal infringement.<sup>40</sup> The court inexplicably held that there was still infringement by equivalents and there was no file wrapper estoppel effect because "it seems more appropriate to characterize the [addition] as a clarification . . . [W]here the amendments were made for the purposes of explication and clarity, the court does not think it appropriate to invoke estoppel against the doctrine of equivalents."<sup>41</sup> The Court does not indicate what it was about the addition that made it "more appropriate" to characterize it as a "clarification" rather than a limitation.

There may be a good reason, but the court should articulate it so that the rest of us can keep it in mind next time. It is more likely that there is no reason, but the court believed that equitable considerations of the case precluded the application of file wrapper estoppel. That is an acceptable analysis but, again, the equitable considerations should be articulated.

A few special circumstances will arise where claim amendments or cancellations clearly do not give rise to file wrapper estoppel, for example, the cancellation of claims in response to a restriction requirement.<sup>42</sup> Such special circumstances are readily distinguishable from others involving claim amendments and cancellations, and should easily preclude any file wrapper estoppel effect.<sup>43</sup>

#### IV. CONCLUSION

The doctrine of equivalents undermines the important policy that the public should be able to determine the scope of a patent, a policy that is crucial to the integrity and respect of the patent system. Depending on the equitable considerations, file wrapper estoppel may limit the doctrine of equivalents, and thereby limit the undermining of that important policy as well. This limitation arises only occasionally but is ra-

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38. *E.g.*, *Andrew Corp. v. Gabriel Elec., Inc.*, 847 F.2d 819, 825 (Fed. Cir. 1988), *cert. denied*, 488 U.S. 927 (1988); *Caterpillar Tractor Co. v. Berco, S.P.A.*, 714 F.2d 1110 (Fed. Cir. 1983).

39. *Andrew Corp.*, 847 F.2d at 819.

40. *Id.* at 824.

41. *Id.* at 825.

42. *See, e.g.*, *Bayer Aktiengesellschaft v. Duphar Int'l. Research B.V.*, 221 U.S.P.Q. (BNA) 1056, (D.C.D.C. 1983), *vacated*, 738 F.2d 1237 (Fed. Cir. 1984).

43. In the case of a cancellation in response to a restriction requirement, for example, file wrapper estoppel should not apply to the reinstated claims in the divisional application since the cancellation was in the parent patent.

tional and fair. Unfortunately, some recent cases have applied or failed to apply file wrapper estoppel without an intelligible discussion of the equitable factors involved.

The most distressing of the recent cases are those that have suggested that what the patentee did in the prosecution of the patent is irrelevant and is no limitation at all on the doctrine of equivalents. The only limitation, according to these cases, is that the doctrine of equivalents cannot be used to expand the patent to cover the prior art. That limitation, although valid, is a separate limitation based on section 102 and is not related to file wrapper estoppel. The faulty reasoning of these cases would effectively extinguish the doctrine of file wrapper estoppel.

