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Legal Update

Hilton-Davis Chemical Co. v. Warner-Jenkinson Co.^{†*}

1. *Introduction*

Due the uncertainty surrounding the application of the doctrine of equivalents, used to determine non-literal infringement of a patent, the United States Court of Appeals for the Federal Circuit (“CAFC”) reviewed this case *en banc* to settle unresolved issues surrounding the doctrine. In its *per curiam* opinion, the majority held that the proper test under the doctrine of equivalents is the substantiality of the difference between the accused and patented product or process, assessed according to an objective standard.¹ The majority noted that other tests that have arisen under the doctrine, such as the function-way-result test and whether one skilled in the art would have known of the interchangeability of an ingredient not contained in the patent with one that was, are applicable under the test, but are not dispositive of the test.² Also, other evidence may be considered under the doctrine, such as evidence of copying and designing around. Evidence of independent development may be admitted in order to rebut evidence of copying. In addition, the majority held that application of the doctrine is an issue of fact to be decided by a jury, or by a judge in a bench trial, and not an issue of law.³ Finally, the

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* 35 U.S.P.Q.2d (BNA) 1641 (Fed.Cir. 1995).

1 *Hilton-Davis*, 35 U.S.P.Q.D2d (BNA) at 1645-46.

2 *Id.*

3 *Id.*, 35 U.S.P.Q.2d at 1648.

majority held that the application of the doctrine is not at the trial judge's discretion when there is no literal infringement. [1]

2. *Facts*

Hilton-Davis Chemical Co. ("Hilton-Davis") and Warner-Jenkinson Co. ("Warner-Jenkinson") manufacture dyes used in food coloring, including FD&C Yellow Dye #6 and Red Dye #40. To meet governmental requirements for food and drug purity, the manufacturers must remove impurities from the dyes. The traditional way to remove these impurities is known as "salting out." By contrast to this wasteful and expensive method, U.S. Patent No. 4,560,746 ("746 patent") granted to Hilton-Davis, taught an improved method of purifying the dyes, utilizing a process known as "ultrafiltration." Ultrafiltration draws the impurities of the dye through a membrane at specified pressures, acidity measured in pH, and pore diameters, thereby yielding a purified dye. The '746 patent specifically claimed "ultrafiltration through a membrane having a nominal pore diameter of 5-15 Angstroms⁴ under a hydrostatic pressure of approximately 200 to 400 p.s.i.g.,⁵ at a pH⁶ level from approximately 6.0 to 9.0[.]" The phrase "approximately 6.0 to 9.0" was added during prosecution to distinguish the '746 patent from actual prior art that discloses an ultrafiltration process operating at pH levels above 9. The '746 patent was issued to Hilton-Davis in 1985. [2]

Warner-Jenkinson developed the accused ultrafiltration process and began using it commercially in 1986. Warner-Jenkinson did not learn of the '746 patent until October of that year. Hilton-Davis learned of Warner-Jenkinson's use of the ultrafiltration process in 1989, and sued for patent infringement in federal court in 1991. At trial, Hilton-Davis showed that the accused process operated at pressures between 200 to approximately 500 p.s.i.g. and at a pH level of 5. Experts testified that although actual pore size in Warner-Jenkinson's process was unknown, it would be between 5 and 15 Angstroms. [3]

Based on this evidence, the jury found that Warner-Jenkinson had infringed the '746 patent under the doctrine of equivalents. The jury did not, however, find willful infringement. The trial judge entered a permanent injunction prohibiting Warner-Jenkinson from using its ultrafiltration process except at pressures above

4 10^{-10} m.

5 Pounds per square inch gage.

6 This term measures alkalinity on a scale from 0 to 14.

500 p.s.i.g. and pH levels above 9.01, which would take the variable parameters beyond those claimed in the '746 patent. [4]

3. *Procedural Background*

Hilton-Davis sued Warner-Jenkinson for infringement of the '746 patent. The jury found the patent valid and found that Warner-Jenkinson infringed the patent under the doctrine of equivalents. The CAFC reviewed this case *en banc* to resolve specific questions concerning the doctrine of equivalents. In a separate panel opinion, the CAFC also decided the issue of patent validity, affirming the District Court's finding that Hilton-Davis's patent was valid.⁷ [5]

The court requested the parties to brief three questions: (1) does a finding of infringement under the doctrine of equivalents require anything in addition to proof of the facts that there are the same or substantially the same (a) function, (b) way, and (c) result? If yes, what; (2) is the issue of infringement under the doctrine of equivalents an equitable remedy to be decided by the court, or is it, like literal infringement, an issue of fact to be submitted to the jury in a jury case; (3) when there is no literal infringement, is the application of the doctrine of equivalents within the trial court's discretion in accordance with the circumstances of the case. [6]

The court delivered a seven to five decision *per curiam* on August 8, 1995.⁸ Judge Newman filed a concurring opinion. Judges Plager, Lourie, and Nies filed dissenting opinions.⁹ [7]

4. *Discussion*

The doctrine of equivalents is a judicially created doctrine employed in determining patent infringement. Literal infringement occurs when the accused product or process falls within a patent's claims, whereas infringement under the doctrine of equivalents is found when the accused product or process is insignificantly different from the patented product or process. Unlike literal infringement, under the doctrine of equivalents the accused product or process does

⁷ Hilton-Davis Chem. Co. v. Warner-Jenkinson Co., No. 93-1088 (Fed.Cir. Aug. 8, 1995) (separate panel opinion).

⁸ *Hilton-Davis*, 35 U.S.P.Q.2d (BNA) 1641.

⁹ The other dissenting judges were Judge Rich and Chief Judge Archer.

not fall within the wording of the patented claims. The premise behind the doctrine is to prevent the unscrupulous copier from avoiding literal infringement of a patent by making minor changes to the product or process. [8]

The majority opinion began its discussion of the doctrine of equivalents by purporting to "restate—not to revise—the test for infringement under the doctrine of equivalents."¹⁰ The majority stated that the Supreme Court in *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*¹¹ held that "insubstantial differences [were] the necessary predicate for infringement under the doctrine of equivalents."¹² According to the CAFC majority, "the application of the doctrine of equivalents rests on the substantiality of the differences between the claimed and accused product or processes, assessed according to an objective standard."¹³ This is commonly referred to as the insubstantial differences test. [9]

The CAFC noted that the traditional function-way-result test is still applicable under the doctrine, but that it is not necessarily dispositive of the question of infringement. The function-way-result test asks if the accused product or process performs substantially the same function as the patented product or process in substantially the same way in order to obtain substantially the same result. Relying on the Supreme Court's mandate in *Graver Tank*, the CAFC stated that "[a]ccording to the Supreme Court, '[a]n important factor to be considered, quite apart from function, way, and result, 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.'"¹⁴ The known interchangeability of the accused and claimed elements is strong evidence that one with ordinary skill in the relevant art would have considered the change insubstantial.¹⁵ Although meeting the function-way-result test or showing that one ordinarily skilled in the art would have known of the interchangeability of the accused and claimed elements will usually be sufficient to find infringement under the insubstantial differences standard, they are not necessarily dispositive of the issue of infringement and the court may consider other, supplementary evidence. [10]

¹⁰ *Id.* at 1516.

¹¹ 339 U.S. 605 (1950).

¹² *Id.* at 1517.

¹³ *Id.* at 1518.

¹⁴ *Id.*

¹⁵ *Id.*

In analyzing infringement under the doctrine of equivalents, the court will also consider supplementary evidence not relating to the function of the accused product or process, the way the accused product or process performs, and its result, if relevant. When evidence of copying is admitted, the fact finder may infer that a copier skilled in the art has only made insubstantial changes. The court noted that while evidence of independent development is not relevant under the doctrine, it is relevant and admissible to rebut evidence of copying. Evidence of designing around a patent may be admitted, from which a fact finder may find that an accused product or process is not infringing because designing around a patent raises an inference that the designer has created substantial changes to avoid infringement. [11]

The CAFC then discussed the issue of whether application of the doctrine of equivalents is an equitable remedy to be applied by the court or a question of fact to be submitted to the jury in a jury trial or to the judge in a bench trial. It held that the question of infringement is a question of fact, not one of law, to be decided by a jury. The court noted that despite the references to the application of the doctrine as an "equitable" remedy, the term was used in its broadest meaning of fairness and justice rather than as a remedy administered by a judge exercising his equity power. It also noted that the *Graver Tank* decision did not discuss any of the traditional equitable principles and therefore should not be construed to create an equitable remedy for the patentee. [12]

Regarding the third question, the court held that the "trial judge does not have discretion to choose whether to apply the doctrine of equivalents when the record shows no literal infringement."¹⁶ The court stated that the answer to the third question simply flows from the answers to the first two questions without offering further explanation. [13]

Judge Newman filed a concurring opinion. In her opinion, she cited *Graver Tank* as the reason for her finding that "insubstantial changes" is the proper test. She stated, "[i]ndeed[,] any change in the legal and factual fundamentals so explicitly laid out by the Supreme Court is beyond our judicial authority."¹⁷ In addition, Judge Newman discussed the national interest in technological innovation as the underlying principle of the doctrine. She also urged the technological community to utilize the legislative process in order to reduce the uncertainty surrounding the doctrine. [14]

¹⁶ *Id.* at 1522.

¹⁷ *Id.* at 1529.

Judge Plager filed a dissenting opinion in which Chief Judge Archer and Judges Rich and Lourie joined. Judge Plager pointed out that the doctrine of equivalents provides a patent holder coverage greater than the patent statute grants because it extends beyond the scope of the claims to find infringement. Judge Plager further noted that making the doctrine an issue of fact for the jury to decide is akin to giving the jury an unbridled and unreviewable license to find infringement. He cites *Markman v. Westview Instruments*¹⁸ to support his position that the doctrine is indeed an equitable remedy. *Markman*, decided *en banc* by the same court, held that interpretation of patent claims is a question of law to be decided by the judge rather than a jury. Judge Plager argued that if the judge is to interpret the patent claims then there is no reason why application of the doctrine of equivalents requires a jury to determine the facts. [15]

Judge Lourie, with whom Judges Rich and Plager joined, filed an additional dissenting opinion. Judge Lourie agreed with the majority that the proper test for infringement is to find insubstantial differences between the accused and patented products or processes, and that evidence beyond function-way-result must be admissible. He disagreed, however, with the majority on three points. First, he stated that because the court is now restating the proper test, the trial court's judgment should be vacated and the matter remanded for a new trial with proper jury instructions consistent with the majority's opinion. Second, he agreed with Judge Plager that the doctrine of equivalents is to be applied by the trial judge as an equitable remedy and therefore is not an issue of fact to be decided by a jury. Third, he argued that additional factors regarding the behavior of the patent holder should be considered beyond the substantiality of the differences. He reasoned that any behavior on the part of the patent holder that impairs the public's ability to determine what is patented should be weighed against the patent holder under the doctrine. According to Judge Lourie, a disclosure in the specifications not embodied in the claims may mislead the public to believe the disclosure is patented and such behavior should be considered against the patent holder. Judge Lourie also argued that the failure of the patentee to seek a patent reissue should also be considered against the patentee if he knew of the alleged infringement during the two years allocated to seek a reissue under the Patent Act.¹⁹ [16]

Judge Nies filed a third dissenting opinion, joined in part by Chief Judge Archer. Judge Nies argued that although a finding of infringement under the doctrine of equivalents is a mixed question of law and fact, upon determining the scope of the claims and establishing the elements of the accused product, the

18 34 U.S.P.Q.2d (BNA) 1321 (Fed.Cir. 1995) (*en banc*).

19 35 U.S.C. § 251 (1988).

finding of infringement resolves itself into a question of law. He argued that the majority merely asks if the elements of the claim are present, or if they are matched by an equivalent step or component. In contrast, Judge Nies asserted that the proper test is whether the elements of the patent have equivalent substitutes, not whether the two inventions are equivalent overall. According to Judge Nies, his substitutable element test strikes the balance between the coverage actually granted by the patent statute and the need to protect inventors from piracy. Judge Nies also dissented from the majority's refusal to consider the issue of the '746 patent's validity and contended that the trial court's instruction as to this issue was defective. [17]

5. *Conclusion*

The *Hilton-Davis* decision, which was intended to settle the issues of what is the applicable test for infringement under the doctrine of equivalents and how it is to be applied, leaves these issues somewhat unresolved. The arguments of the dissent are quite strong and point out various weaknesses in the majority's *per curiam* opinion. On November 6, 1995, a petition for certiorari to appeal this decision was filed in the Supreme Court. Whether or not the Supreme Court will grant certiorari remains to be seen at this time. Although this decision is the current law regarding the doctrine of equivalents, the closeness of the seven to five decision and the strong arguments asserted in dissent leave much of the doctrine, as it currently stands somewhat questionable. [18]

-Bryan Collins