Supplemental Brief for Appellee

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SUPPLEMENTAL BRIEF FOR PLAINTIFF-APPELLEE HILTON DAVIS CHEMICAL CO. ON REHEARING IN BANC

U.S. COURT OF APPEALS FOR THE FEBRUAL CIOCUIT FEB 4 - 1991

FRANCIS X. GINDHART

UNITED STATES COURT OF APPEALS

For The Federal Circuit

93-1088

HILTON DAVIS CHEMICAL CO.,
Plaintiff-Appellee,

WARNER-JENKINSON COMPANY, INC., Defendant-Appellant,

Appeal from a Decision of the United States District Court for the Southern District of Ohio, Western Division Civil Action No. C-1-91-218 Honorable Herman J. Weber, District Judge

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Transmai 835 F. Si	tic, Inc. v. Gui app. 1026 (E.I	ton Industrie D. Mich. 199	is, Inc., (3)	
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CERTIFICATE OF INTEREST

Counsel for appellee, Hilton Davis Chemical Co., hereby certifies as to the following:

The full name of each party represented by me:

Hilton Davis Chemical Co.

The name of the real party in interest represented by me:

Hilton Davis Chemical Co.

- Hilton Davis Chemical Co. is a wholly owned subsidiary of the Freedom Chemical Company, which is a wholly-owned subsidiary of The Freedom Group Partnership. Hilton Davis Chemical Co. has no subsidiaries or affiliates that have issued shares to the public.
- 4. The names of all law firms whose partners or associates that appeared in the Court below or are expected to appear in this Court are:

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STATEMENT OF RELATED CASES

In compliance with Federal Circuit Rule 47.5, Appellee states that it knows of no other appeal in or from the same civil action which was previously before this or any other appellate court. Appellee is similarly unaware of any case pending in this or any other court which will directly affect or be directly affected by this Court's decision in the pending appeal.

STATEMENT CONCERNING ATTORNEY FEES

In compliance with Federal Circuit Rule 47.7, Appellee does not make any claim for attorney fees in this Brief.

SUMMARY OF THE ARGUMENT

 The Doctrine Of Equivalents Is Measured Solely By The Tripartite Test Of Graver Tank, And Is A Question Of Fact For The Jury

The three questions posed by the Court are critical to determining the direction in which our patent system will head, and it is apparent that the three are inextricably intertwined. In fact, when the first and third questions are properly answered, the second all but vanishes.

It is also apparent that this in banc rehearing is a result of a series of decisions handed down recently by several panels of this Court. See, e.g., London v. Carson Pirie Scott & Co., 946 F. 2d 1534, 20 U.S.P.Q.2d 1456 (Fed. Cir. 1991); Charles Greiner & Co. v. Mari-Med Mfg., Inc., 962 F.2d 1031, 22 U.S.P.Q.2d 1526 (Fed. Cir. 1992); International Visual Corp. v. Crown Metal Mfg. Co., Inc., 991 F.2d 768, 26 U.S.P.Q. 2d 1588 (Fed. Cir. 1993). This series of decisions suggests that the doctrine of equivalents requires a balancing of various equitable factors, however this yet untravelled path will deprive patentees of their rightful coverage and in the process remove any certainty which was formerly present in the doctrine. One can only surmise that the reason for this new direction is a perception that something is inherently wrong with the doctrine of equivalents. To the contrary, however, only when the doctrine is applied solely through employment of the tripartite test of Graver Tank are the purposes of our patent system, as required by the Constitution, advanced. When "equitable factors" such as independent development are interjected, the goal of promoting "the progress of science and the useful arts" is thwarted.

A thorough review of the history of the doctrine of equivalents reveals that the tripartite test of *Graver Tank* is merely an outgrowth of the rich history of the doctrine. From its earliest roots, the doctrine of equivalents merely required a comparison of the accused device or process to what was patented. "Equitable" factors were never considered, as the inquiry focused only on whether or not the device or process itself was a substantial equivalent. Winans v. Denmeaa, 56 U.S. 330, 341 (1853). The patentee was entitled to claim as his own "not only the precise forms he has described, but all other forms which embody his invention." Id. While the doctrine of equivalents was discussed numerous times by the Supreme Court prior to Graver Tank, there simply was never even a suggestion that copying, independent development, or any other equitable factors were to be considered.

While Graver Tank v. Lind: Air Products Co., 339 U.S. 605 (1950), is consistently cited for its pronouncements on the doctrine of equivalents, the tripartite test discussed therein was not new. See, e.g., Machine Co. v. Murphy, 97 U.S. (7 Otto) 120 (1878). In fact, Graver Tank merely restated and reinforced the doctrine's place in the patent jurisprudence. Nothing new was added by Graver Tank, as a mere reference to the term "equitable" does not convert a legal principle into a doctrine sounding only in equity. Simply put, Graver Tank only requires that the patent owner prove that the device or process in question differs only insubstantially from what is claimed in the patent. Id. at 610. Even the opinions of this court have continued to follow this principle.

The only "limitations" placed upon the doctrine of equivalents are prosectution history estoppel and the scope of the prior art, and it is axiomatic that this Court is powerless to creat its own. Not only is this court bound by the prior decisions of the Supreme Court on this subject, but also the Constitution. The purpose of our patent system, as specified in the Constitution, is to protect the inventor, thereby encouraging research and development. In order to advance the goals required by the Constituon, patentees must be given the full benefit of their inventions, with no "equitable" baggage.

Requiring a proof of equities would also lead to unacceptable uncertainty in our patent law. Adding a fourth part (i.e., equitable factors) to the tripartite Graver Tank analysis would create more uncertainty for potential infringers and patentees alike. Furthermore, designining around of patents would be strongly discouraged, since liability for infringement would now turn on knowledge of the patent and the degree of independent development, rather than a scientific comparison of the device or process in question and the scope of the patent claims. Thus it is clear that infringement under the doctrine of equivalents requires nothing more than factual proof that the tripartite test of Graver Tank has been met.

By the same token, application of the doctrine of equivalents is not discretionary. If there are sufficient facts supporting a finding of equivalency, as measured solely by the tripartite test and the traditional rules for judgements as a matter of law and summary judgement, the issue must be given to the jury. Permitting the judge to be an "equitable gatekeeper," with the ability to prevent patent owners from employing the doctrine of equivalents when notions of fairness demand, would not only violate the precepts of our patent jurisprudence, but also due process. Discretionary findings of infringement would permit a court to prohibit otherwise lawful conduct solely upon its own notions of fairness. Not only is such discretion unsupported by any precedent in any area of the law, it is unwise.

Finally, the doctrine of equivalents has for time immemorial been considered a question of fact and for the jury. Tyler v. Boston, 74 U.S. 327 (1868). Once again, to hold otherwise would clearly violate the binding precedent of our Supreme Court. Furthermore, a seventh amendment analysis of the question leads one to the same conclusion. A comparison of infringement claims to 18th-century actions in the English courts, as well as an examination of the nature of the remedy sought leads to the very same conclusion: patent owners have a constitutional right to a jury trial on the issue of infringement under the doctrine of equivalents.

Chauffeurs, Teamsters and Helpers Local No. 391 v. Terry, 494 U.S. 558 (1990).

ARGUMENT

I. INTRODUCTION

A. The questions to be decided in banc

- Does a finding of patent 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, the so-called triple identity test of <u>Graver Tank</u> v. <u>Linde Air Products Co.</u>, 339 U.S. 605, 85 USPQ 328 (1950), and cases relied on therein? If yes, what?
- Is application of the doctrine of equivalents by the trial court to find infringement of the patentee's right to exclude, when there is no literal infringement of a claim, discretionary in accordance with the circumstances of the case?
- 3. 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?

B. The questions posed must be answered properly to preserve the pinciples of Graver Tank and the Constitution

The three questions posed by this Court for in banc consideration, as well as recent debate in the Court's decisions, seem to suggest a more basic inquiry. Is the doctrine of equivalents broken and in need of repair? Certainly, there is presently no evidence of record that the doctrine is not fulfilling its prime purpose, as expressed by the Constitution and Graver Tank: to insure that the patentee receives the full benefit of his invention.

For if the doctrine is functioning as intended, the three areas of inquiry are simply unnecessary, but rather seem only to bring uncertainty and subjectivity to a well-established objective, scientific test for infringement.

Morover, in answering the questions posed by the court, Plaintiff submits that two overriding principles must be recognized. The first flows from our Constitution: that any patent system must "promote progress of the useful arts". The second is inherent in Graver Tank: that patent owners must be given the full benefit of their inventions.

Consequently, any meddling with the current doctrine of equivalents analysis must not run afoul of these principles. The doctrine, as applied in practice, must continue to "promote progress" of patented inventions and provide patentees the full benefit of their inventions, while not degrading, and hopefully improving, the certainty of determining claim scope by the public.

As demonstrated below, any change to doctrine of equivalents analysis, and particularly that propounded by Defendant, will seriously undermine the constitutional and *Graver Tank* principles. These principles can be fully preserved only by answering the questions posed by this Court with an emphatic (1) NO, (2) NO, and (3) A JURY QUESTION.

II. A FINDING OF INFRINGEMENT UNDER THE DOCTRINE OF EQUIVALENTS ONLY REQUIRES A SHOWING THAT THE TRIPARTITE TEST OF GRAVER TANK IS MET: NOTHING FURTHER IS REQUIRED OR NECESSARY

There is no suggestion in *Graver Tank* that anything beyond the function/way/result test is <u>required</u> to show that an accused device or process is the functional equivalent of a claimed invention. Specifically, this case does not <u>require</u> a consideration of the infringer's "equity", whether stated as "copying", "fraud", or any

other intentional conduct. Moreover, to require such a *fourth* factor would negate *Graver Tank's* prime directive of giving the patentee the full benefit of his invention, and would chill the constitutional goal of our patent system by retarding progress of invention through imposition of additional artificial restrictions. When the doctrine of equivalents is viewed in its proper historical perspective, the answer to the first question is self-evident: no additional factors are required or necessary.

A. The Origins Of The Doctrine Of Equivalents Under English Jurisprudence Do Not Suggest A Requirement Of Factors In Addition To The Tripartite Test

While the doctrine of equivalents has a rich and detailed history in our own case law, it is clear that, like many other principles of our patent law, it had its origins in the English common law. In fact, many of the early U.S. patent law decisions looked to the English opinions for guidance well into the nineteenth century. See, e.g., Tilghman v. Proctor, 102 U.S. 707, 724 (1880)(Court quotes extensively from English patent decisions); Pennock v. Dialogue, 26 U.S. 1 (1828)("the construction of it adopted by the English courts, and the principles and practice which have long regulated the grants of their patents, as they must have been known and are tacitly referred to in some of the provisions of our own statute, afford materials to illustrate it.").

While it has been stated on several occasions that the doctrine of equivalents arose in the English Chancery courts, none have ever cited support for this statement. See, e.g., Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 957, 4 U.S.P.Q.2d 1737, 1758 (Fed. Cir. 1987)(Newman, J., commentary). This is not surprising for two reasons. First, while the case law indicates that the law of equivalence was well established by the early part of the 19th century, patent jurisprudence prior to this time was not reported to any great extent. Boulton v. Bull, 2 H. Bl. 463, 491 (1795)("patent rights are no where accurately described in our books"). Second, it is clear that from at least the year 1624, it was

declared that the force and validity of patents "ought to be and shall be for ever hereafter examined, heard, tried, and determined by and according to the common laws of this realm, and not otherwise." The Statute of Monopolies, 21 Jac. 1, C.3 (1623) (reprinted in 1 Websters Patent Cases at 30 (1844)). This would tend to indicate that infringement was not determined according to equitable considerations. Unfortunately, however, the case reports prior to the 19th century are sketchy at best, and resort must be had to historical treatises on the subject. Even these, however, are unable to provide a clear picture of the manner in which patent rights were adjudicated. See, Christine MacLeod, INVENTING THE INDUSTRIAL REVOLUTION: THE ENGLISH PATENT SYSTEM 1660-1800, 58 - 74 (1988).

It is significant to note that the MacLeod treatise cites an interesting patent granted by a private act of Parliament. A patent to William Walcot in 1695 specified that "no one was to use anything similar 'if principally the same' without his license, under penalty of the forfeiture of the equipment and heavy fines." Id. at 73. At a minimum, this would appear to be a legislative recognition of infringement by equivalence, and may even tend to indicate that equivalence arose not in the judiciary but in the legislative branch. While most patents during this time period were granted under the prerogative of the king, this act of parliament gives some indication that patents were always considered to cover equivalents.

Regardless of the foregoing, the cases from the early part of the 19th century indicate that infringement by equivalence was well established by that time. See, e.g., Heath v. Umwin, 2 Websters Patent Cases 296 (H.L. 1855); Stead v. Anderson, 1 Websters Patent Cases 151 (C.P. 1847); Hill v. Thompson And Forman, 1 Websters Patent Cases 239 (C.P. 1818). More importantly, there is no indication in any of the English cases from the 19th century that infringement by equivalence was an equitable doctrine. To the contrary, the English cases indicate that a determination of equivalence was merely part of the infringement analysis.

Additionally, the standard by which equivalence of the patented invention were measured was similar to that employed in our courts. See, e.g., Morgan v. Seaward 1 Websters Patent Cases 171 (1836)(Alderson, charging jury)("the two machines are alike in principle, and the other has adopted it, and though he may have carried it into effect by substituting one mechanical for another, still you are to look to the substance and not to the mere form, and if it is in substance an infringement, you ought to find that it is so"). This mode of analysis has continued to this day in the United Kingdom as it has been recently stated that "textual infringement" (i.e. literal infringement) and infringement of the "pith and marrow" (i.e., inf 'ngement by equivalence) are but a single cause of action, and to treat the subject otherwise "is liable to lead to confusion." Catnic Components Ltd. v. Hill and Smith Ltd., FSR 60 (House of Lords 1980).

While it is clear that infringement by equivalence, at least during the 19th century and most likely prior to that time, was not considered an equitable remedy, it is also clear that the intention of the infringer was immaterial. Thus, it was stated that "[t[he knowledge or intention of the party infringing the patent is now most properly admitted to be immaterial" Heath v. Umwin, at 300. Subsequent English cases from the 19th century provide the same rule: there was simply no requirement that the infringer copied or had not independently developed the infringing article. See, e.g., Stead v. Anderson, at 151 ("[t]he only question of fraud, which was the only one left to the jury, upon the plea, appears to have been left in consequence of the plaintiff's insisting at the trial that there was a fraudulent intention to evade the prohibition of the plaintiff's patent; it appears to us that the intention was immaterial").

B. The Development of the Doctrine of Equivalents in the United States Did Not Suggest That Additional Factors Are Required

While some appear unexplainably reluctant to admit the fact, Winans v. Denmead, 56 U.S. 330 (1853) was not the first pronouncement of the doctrine of equivalents in the United States. While the earliest cases, including Winans, do not use the term "equivalents," it is clear from their language that the underlying principle is the same.

The earliest of such cases appears to be Reutgen v. Kanowrs, 20 F. Cas. 555 (C.C.D. Pa. 1804), where Supreme Court Justice Washington instructed the jury that:

[y]our second inquiry is, have the defendants, or either of them, used a machine similar to the one mentioned in the plaintiff's patent and specification. ... The question is, is the defendant's improvement of swedges, an improvement on the principle, or the form, or proportions of the plaintiff's machine; if the first, he has as much right to use his improvement, as the plaintiff has to use his original invention. If otherwise, and the defendant has used the original invention, thus altered, it is a violation of the plaintiff's right.

Id. at 556. Thus, 150 years before Graver Tank, Justice Washington recognized that without an equivalency standard for infringement the inventor would be placed "at the mercy of verbalism and would be subordinating substance to form." Graver Tank at 607.

It is also important to note that while "equivalency" was well established in the United States by 1804, "equitable" considerations are not mentioned in *Reutgen*. It is also clear that the basis for analysis of the "similarity", i.e. equivalency, of an accused device and that described in the patent was not considered a judicial

expansion of the scope of the patent. Rather, it was merely a recognition that the patent covers, from the date of issuance, what is literally described as well as any equivalent structures; i.e., merely a change or improvement in "form, or proportions" was still an infringement. See, e.g., Union Paper Bag Machine Co. v. Murphy, 97 U.S. 120, 125 (1878)("[a]uthorities concur that the substantial equivalent of a thing, in the sense of the Patent Law, is the same as the thing itself").

One of the better-known early U.S. decisions discussing the doctrine of equivalents is *Odiorne v. Winkley*, 18 F. Cas. 581 (C.C.D. Mass. 1814). In this decision, Justice Story charged the jury that:

[T]he first question for consideration is, whether the machines used by the defendant are substantially, in their principles and mode of operation, like the plaintiff's machines. If so, it was an infringement of the plaintiff's patent to use them, unless some of the other matters offered in the defence [sic] are proved. ... The material question, therefore, is not whether the same elements of motion, or the same component parts are used, but whether the given effect is produced substantially by the same mode of operation, and the same combination of powers, in both machines.

Id. at 582. Once again Justice Story instructed the <u>jury</u> on what we now refer to as the "doctrine of equivalents," employing language whose meaning is the same as that of the familiar tripartite test. And again, there is no suggestion of a requirement for "equitable" factors. Likewise, in *Gray v. James*, 10 F. Cas. 1015 (C.C.D. Pa. 1817), Justice Washington instructed the <u>jury</u> that if the device in question and that of the patent were "substantially the same, and operate in the same manner to produce the same result, they must be in principle the same". Is there any doubt that Justices Story

and Washington were instructing the jury on what we now know as the doctrine of equivalents?¹

In its Supplemental Brief, Defendant attempts to explain away these early cases by arguing that these cases dealt only with "literal infringement." Defendant's Supplemental Brief at 15. That argument is misdirected: the court was expounding on the test for infringement, period; there was no differentiation between literal infringement or infringement by equivalency. Infringement occurred either if the accused device or process was identical to what was claimed, or if "the given effect" (the result) was "produced substantially by the same mode of operation" (the function), and the "same combination of powers" (the way). Odiorne at 582. It is interesting that Defendant is attempting to put the doctrine itself into a "semantic straightjacket," "subordinating substance to form," results that the doctrine is expressly designed to prevent.

The doctrine of equivalents, as it is now referred to, began not as a separate test to be employed when literal infringement was not found, but rather part and parcel of the infringement analysis itself. Infringement was found if the patent and the device in question were either identical or equivalent. See, e.g., Sloat v. Spring, 22 F. Cas. 330, 334 (C.C.E.D. Penn. 1850)("An infringement involves substantial identity, whether that identity be described by the terms 'same principle', same 'modus operandi', or any other. 'A machine is an infringement of another if it incorporates in its structure and operation the substance of the invention; that is, by an arrangement of mechanism which performs the same service, or produces the same effect in the same way, or substantially in the same way'.") In fact, many courts have continued to refer to infringement in this manner. See, e.g., Conroy v. Reebok International, Ltd., No. 93-1281 (Fed. Cir. Jan. 4, 1994)(1994) U.S. App. LEXIS 58)(Clevenger, J.)("the patentee must prove that

As developed more fully infra, in the early 1800's justices of the Supreme Court believed the doctrine to be properly submitted to juries

the accused device embodies every limitation in the claim, either literally or by a substantial equivalent"); Carroll Touch Inc. v. Electro Mechanical Systems Inc., 3 F.3d 404, 407, 27 U.S.P.Q.2d 1836, 1839 (Fed. Cir. 1993)(Lourie, J.)(*[a] claim covers an accused device if the device embodies every limitation of the claim, either literally or by an equivalent"); Laitram Corp. v. Rexnord Inc., 939 F.2d 1533, 1535, 19 U.S.P.Q.2d 1367, 1369 (Fed. Cir. 1991)(Nies, J.)("every limitation set forth in a patent claim must be found in an accused product or process exactly or by a substantial equivalent"); Jurgens v. McKasy, 927 F.2d 1552, 1560, 18 U.S.P.Q.2d 1031, 1037 (Fed. Cir. 1991)(Rich, J.)(*[i]nfringement may be found only if 'every limitation set forth in a claim [is] found in an accused product or process exactly or by a substantial equivalent'"). It is interesting to note that none of these recent opinions associates the terms "equitable" or "equity" with the infringement analysis or the doctrine of equivalents.

The Odiorne decision is also particularly enlightening for what it does not say. The fact that Justice Story was charging a jury on equivalency is undeniable proof that the doctrine of equivalents was not considered to be an equitable claim, since at that time a cause of action that was wholly equitable could only be heard by a court sitting in equity. Before the merger of law and equity, a common law court could not grant equitable relief. Dunphy v. Kleinschmith and Duer., 78 U.S. 610, 614 (1870)("[I]n a country or territory where the systems of common law and chancery both substantially prevail, it is perfectly clear that chancery only could give adequate relief in such a case"). It is also a historical fact that Justice Story, who at the time of the Odiorne case was a Supreme Court justice. is also considered to be the "father of American equity." G.L. McDowell, EQUITY AND THE CONSTITUTION 69 (1982). 1f anyone were to be of the view that infringement by equivalency was equitable, it would have been Justice Story! There is, however, nothing which even hints of equity in his decision.

As noted above, the first known Supreme Court pronouncement on equivalency came in Winans v. Denmead, 56 U.S. 330 (1853). Although Defendant argues that the Winans' opinion never uses the word "equivalents," it is undeniable that the Court was stating what we now call the doctrine of equivalents. As the court stated: "[1]t is generally true, when a patentee describes a machine, and then claims it as described, that he is understood to intend to claim, and does by law actually cover, not only the precise forms he has described, but all other forms which embody his invention." Id. at 341 (emphasis added). In other words, the patent covers not only what is therein described, but also any equivalents, with no distinction between an infringement which is an exact copy, and one that is an infringement by nature of its equivalency. From its date of grant the patent covers what is claimed as well as all equivalents. The patent covers, by operation of law, equivalents of what is described and claimed, without regard to extraneous "equitable" factors such as a lack of independent development, "copying", or "piracy":

Patentees sometimes add to their claims an express declaration, to the effect that the claim extends to the thing patented, however its form or proportions may be varied. But this is unnecessary. The law so interprets the claim without the addition of these words. The exclusive right to the thing patented is not secured, if the public are at liberty to make substantial copies of it, varying its form or proportions.* Id. at 343 (emphasis added).

The Winans Court did recognize that there are limits on equivalency. Thus, a patent will cover equivalent forms of the device described in the specification, "unless [the inventor] manifests an intention to disclaim some of these forms," Id. at 343, an early recognition of prosecution history estoppel. See, infra at 23.

The cases which followed Winans observed the same general principles discussed therein, and it was not long before the term "doctrine of equivalents" appeared. See, e.g., McCormick v. Talcott, 61 U.S. 402, 405 (1858). Indeed, it is during the period

shortly following Winans that the familiar tripartite test began to emerge as the standard by which equivalency was judged. See, e.g., Roberts v. Ryer, 91 U.S. 150, 159 (1875)("doing the same thing, in the same way, by substantially the same means, with better results"); Machine Co. v. Murphy, 97 U.S., 120, 125 ("if it performs substantially the same function in substantially the same way to obtain the same result"). By developing an articulable standard, the Court was able to provide guidance for juries in determining the factual question of equivalence. In none of these cases was there even the slightest suggestion that the doctrine of equivalents sounded in equity, and the question was frequently expressly stated to be one for the jury. See, e.g., Tyler v. Boston, 74 U.S. 327, 330-1 (1868)("whether one compound of given proportions is substantially the same as another compound varying in proportions -- whether they are substantially the same or substantially different - is a question of fact and for the jury"). Nor was there any suggestion that additional "equitable" factors were required or even necessary.

The Defendant and others have correctly noted that the current "peripheral system" of claiming did not arise until The Patent Act of 1870, ch. 230, 16 Stat. 198, 201 ("particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery"). The significance of this event as it affects the doctrine of equivalents, however, has been overstated. It is clear from the opinions of the Supreme Court immediately after adoption of this statute that the new claiming requirements had little effect on the doctrine of equivalents. The Court's focus in examining whether or not a device or process infringed by equivalence merely shifted from what was described in the specification to what was described in the claim. "It is a well known doctrine of patent law, that the claim of a combination is not infringed if any of the material parts of the combination are omitted. It is equally well known that if any one of the parts is

Under our present statute, the claims are merely <u>part of</u> the specification. 35 U.S.C. 6 112.

only formally omitted, and is supplied by a mechanical equivalent, performing the same office and producing the same result, the patent is infringed." Union Water-Meter Co. v. Desper, 101 U.S. 332, 335 (1880).

The significant number of Supreme Court decisions discussing the doctrine of equivalents between the Winans decision and Graver Tank is surprising. See, e.g., McCormick v. Talcott, 61 U.S. 402 (1858); Burr v. Duryee, 68 U.S. 531 (1864); Case v. Brown, 69 U.S. 320 (1864); Seymour v. Osborne, 78 U.S. 516 (1870); Rees v. Gould, 82 U.S. 187 (1871); Gill v. Wells, 89 U.S. 1 (1874); Brown v. Guild, 90 U.S. 181 (1874); Roberts v. Ryer, 91 U.S. 150 (1875); Ives v. Hamilton, 92 U.S. 426 (1875); Machine v. Murphy, 97 U.S. 120 (1878); Imhaeuser v. Buerk, 101 U.S. 647 (1879); Belding Mfg. Co. v. Challenge Corn Planter Co., 152 U.S. 100 (1894); Sanitary Refrigerator Co. v. Winters, 280 U.S. 30 (1929). While the reason for this activity is unclear, it is crystal clear that none of the decisions by the Supreme Court prior to Graver Tank ever suggested or even hinted that the doctrine was 'equitable," or that additional "equitable" factors were required. Likewise, the familiar tripartite test, with minor variations in language, was consistently applied without the requirement for extraneous factors such as copying, independent development, "piracy", "fraud," etc. See, e.g., Machine Co. v. Murphy, 97 U.S. at 125 (1878)("if it performs substantially the same function in substantially the same way to obtain the same result"); Sanitary Refrigerator Co. v. Winters, 280 U.S. 30, 42 (1929)("if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape"). The scope of equivalence was indeed limited by the prior art and prosecution history estoppel; however, copying, or a lack thereof, was never mentioned as a factor. It is simply inconceivable that if this factor were indeed a requirement to be considered by the court in determining infringement, it would have escaped mention in all of the decisions during this period. The only conclusion is that copying, independent development, and other "equitable" factors have never been a part of the doctrine of equivalents.

C. Graver Tank Merely Restated, And Did Not Change, Prior Jurisprudence

With the foregoing background, Graver Tank may now be interpreted in its proper historical perspective. It is apparent that Graver Tank merely restated what was already the law infringement by equivalency exists when the tripartite test is met, subject to any prosecution history estoppel or limitations imposed by the prior art. "[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'." Graver Tank at 608 (citing Sanitary Refrigerator Co. v. Winters, 280 U.S. 30, 42 (1929)). If the tripartite test is met, the claimed device and the accused "are the same, even though they differ in name, form, or shape." Id. (citing Machine Co. v. Murphy, 97 U.S. at 125 (1878)). This statement is the holding of Graver Tank. It is significant because there is no mention in the "test" of a requirement of equitable factors.

While Graver Tank refers, in dicta, to the "equitable" doctrine of equivalents, use of the term "equitable" is not a magical mantra which transforms the doctrine of equivalents into a witch hunt where factors unrelated to an infringement analysis are examined. Indeed, the Court in Graver Tank clearly stated that there was only one question the law is concerned with, namely whether or not the difference between the patented process and that of the defendant was "insubstantial". Id. at 610. If the difference is insubstantial, the accused process is an infringement:

The question which thus emerges is whether the substitution of the manganese which is not an alkaline earth metal for the magnesium which is, under the circumstances of this case, and in view of the technology and the prior art, is a change of such substance as to make the doctrine of equivalents inapplicable; or conversely, whether under the circumstances the change was so insubstantial that the trial court's invocation of the doctrine of equivalents was justified.

Id.

In other words, the pivotal question is whether the change is "substantial" or "insubstantial." In actuality, it is clear from reading Graver Tank that the Court was using the term "equitable" to emphasize that mere technical differences must not limit a patentee's right to full enjoyment of his invention. Id. at 607. Thus, the "theme" of Graver Tank is fairness to the patentee. Nowhere in the decision is there any suggestion of an infringer's "equity." In fact, the Court expressly describes one who infringes under the doctrine of equivalents by making only insubstantial changes as an "unscrupulous copyist" who commits a "fraud on the patent." Id. This is not, however, akin to saying that only an unscrupulous copyist can infringe under the doctrine of equivalents; nor is it akin to saying that copying is even a factor to be considered.

Thus, the doctrine is invoked whenever the difference is insubstantial, as measured by the familiar three-part test: "if it performs substantially the same function in substantially the same way to obtain the same result." Id. at 608. In this regard, the Court in Graver Tank merely restated the standard that had been applied for decades in determining whether or not a device or process infringes by equivalency. See, e.g., Machine Co. v. Murphy, 97 U.S. (7 Otto) at 125 (1878)("if it performs substantially the same function in substantially the same way to obtain the same result"). In fact, if the Court in Graver Tank intended to change the well-established doctrine of equivalents and 150 years of jurisprudence by requiring a showing of lack of independent development or some other "equitable" factor, the Ficklen v. Shelby discussion is notably silent on that intent. County Taxing District, 145 U.S. 1, 24-25 (1892)(Harlan, J.

dissenting)("I do not assume that the court intends to modify or overrule any of those cases, because no such purpose is expressed. And yet I feel sure that the present decision will be cited as having that effect").

Even members of this Court have recognized that a patent is infringed if the device or process is only insubstantially different from the claimed invention. Thus, in Slimfold Mfg. Co. v. Kinkead Industries Inc., 932 F.2d 1453, 1457, 18 U.S.P.Q.2d 1842, 1846 (Fed. Cir. 1991)(decided by Rich, J., Archer, J., and Michel, J.), Ju. Rich stated that:

"the first question which must be asked is 'has a substantial change been made?" Only if the answer to that question is 'no' should an accused infringer be liable for improperly trying to appropriate the claimed invention. This is where the Graver Tank tripartite test comes into play; the differences between an accused device and a claimed device are considered to be insubstantial only when the accused device performs substantially the same function in substantially the same way to achieve substantially the same result as the claimed device. The determination of whether an accused device meets this strict test is one of fact." (emphasis added)

Thus, this panel emphasized that the threshold test is "has a substantial change been made", not equity, copying or independent development. While the doctrine does indeed serve the equitable purpose of ensuring that the patentee is given the full "benefit of his invention," there is nothing in the opinion of Graver Tank which would prevent application of the doctrine merely when an insubstantial change is present, regardless of the equities. In other words, "if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape." Id. at 608 (citing Machine Co. v. Murphy, 97 U.S. 120, 125 (1878)). It follows, therefore, that if they are "the same," then there is

infringement regardless of whether or not there was independent development or another "equitable" factor present.

Another stated <u>purpose</u> (not requirement for application) of the doctrine is to prevent unscrupulous copying. *Graver Tank* at 697. Thus, the doctrine is prophylactic in nature; "unscrupulous copying", however, is not a requirement, or even a factor. In other words, while the doctrine is designed to prevent unscrupulous copying (in addition to giving the inventor the full benefit of the invention), the doctrine is not applied only to such unscrupulous copyists. Unscrupulous copying is difficult to prove, and the line beyond which one becomes "unscrupulous" is exceedingly difficult to draw. Thus, a prophylactic measure is in place. As stated in *Edenfield v. Fane*, 123 L.Ed. 2d 543, 559 (1993), a particular rule is prophylactic when it prohibits "conduct conducive to fraud or overreaching at the outset, rather than punishing the misconduct after it occurred."

Some members of this Court, as well as several commentators, have nevertheless suggested that the doctrine of equivalents is equitable, and thus a "balancing of the equities" must be performed. See, e.g., International Visual Corp. v. Crown Metal Mfg. Co., Inc., 991 F.2d 768, 775, 26 U.S.P.Q.2d 1588, (Fed. Cir. 1993)(Lourie, J., concurring)(equitable factors include copying, independent development, pioneering status of invention, and disclosed but unclaimed subject matter). As shown previously, however, the doctrine of equivalents did not have its origins in equity, and it is inconceivable to think that the Supreme Court's decision in Graver Tank could convert the doctrine into one sounding in equity. It would simply be unheard of for a court to convert a claim existing at common la. into one sounding only in equity. While it is true that equity follows the law, "equity is a system for the correction of defects in the law." H.L. McCLINTOCK, McCLINTOCK ON EQUITY 53 (2d Ed. 1948). Thus, equity can only come to one's aid when there is an inadequate remedy at law. Id. at 46. Historically therefore, a court of equity would not encroach upon the powers of the common law courts, and, for the same reason, it would be unheard of for a remedy at law to be converted into one sounding <u>only</u> in equity. Id. at 47. In actuality, only the reverse occurs. See, e.g., 3 A. CORBIN, CORBIN ON CONTRACTS § 613 (1960)("that which was equity became common law as well, or even exclusively"); Sloan, Quantum Meruit: Residual Equity in Law, 42 DePaul L. Rev. 399, 401 (1992)("[q]uantum meruit is a legal action based on equitable restitution").

While many have expressed their opinion that there are additional equitable factors which must be considered in an equivalency determination, the precedential support for this position is scant. For example, Amicus Acuson Corporation demonstrates the ludicrousness of requiring factors besides the three-part test to establish infringement under the doctrine of equivalents. Acuson admits that its analysis is not supported by any precedent, and it refuses to even discuss the limitations that prosecution history estoppel and the prior art place on equivalency since it declares that these restrictions are "so well established." Id. at 2, fn. 1.

The most important fallacy in Acuson's argument, however, reveals one of the most significant problems with requiring an additional showing beyond the tripartite test. Acuson argues that "there must be an additional determination to support a conclusion that the difference between the literal scope of a patent claim and the accused device or process was insubstantial or merely 'colorable'." Id. at 2. The additional determination Acuson argues is whether or not the accused device or process was independently developed or merely copied. Id. at 3. The fallacy in this approach is that how a device or process is developed has nothing to do with a determination of whether or not it differs only insubstantially from a patented device or process. The difference is either insubstantial in fact, or it is not, and Graver Tank instructs us that

Acuson admits it is presently a defendant in a patent infringement action, and thus there is a vested interest in limiting the doctrine. Amicus Brief of Acuson Corp. at 1.

this is the only relevant inquiry. Graver Tank, at 610. One can easily conceive of a situation where two parties are producing devices or processes which are identical to one another and are also legally equivalent to what is claimed in a patent. Is it logical that a court could declare that one is only insubstantially changed from the patented device because of a lack of independent development, while the other is substantially changed because it was developed independently? Is the patent owner receiving the full benefit of his invention as Graver Tank mandates?

Once the Supreme Court declares, as it did in Graver Tank, that the doctrine of equivalents is invoked whenever a device or process differs insubstantially from what is claimed, the only inquiries required are what is the nature of the accused device or process, and what is claimed in the patent. A court should not and cannot inquire how the accused device or process was developed.4 It is certainly instructive to note that until recently, not one court, either before or after Graver Tank, had ever felt that a lack of independent development was determinative in an equivalants analysis. To the contrary, the Supreme Court has expressly stated that independent development will not save an infringer. Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 478, 181 U.S.P.Q. 673, 677 (1974)("[t]his protection goes not only to copying the subject matter,...but also forbids independent creation"). See also, Intel Corp. v. International Trade Commission, 946 F.2d 821, 832, 20 U.S.P.Q.2d 1161, 1171 (Fed. Cir. 1991)("there is no intent element to direct infringement"); Blair v. Westinghouse Electric Corp., 291 F. Supp. 664, 670, 160 U.S.P.Q. 155, 160 (D.D.C. 1968)("[i]t is of course, elementary, that an infringement may be entirely inadvertant and unintentional and without knowledge of the patent. In this respect the law of patents is entirely different from the law of copyright"). In fact, all of the previous decisions of this

⁴ While "how" may be relevant in determining the wilfullness of an infringer's conduct, it has no place in testing whether or not one device or process is the mechanical or chemical equivalent of another — a question of mere scientific fact.

Court, the very Court charged with bringing consistency to the patent law, have given wholehearted support to the tripartite test and the substantial/insubstantial change analysis. See, e.g., Perkin Elmer Corp. v. Westinghouse Electric Corp., 822 F.2d 1528, 3 U.S.P.Q.2d 1321 (Fed. Cir. 1987).

It has also been suggested that Graver Tank holds that copying creates an inference of equivalence. This is not the case. The Court merely stated, in dicta, that a lack of independent development creates an inference that the accused device was "the result of imitation rather than experimentation or invention." Graver Tank at 612. The Court never stated what such an inference means, or how it could properly be applied to any issue in the case. While one might argue that a lack of independent development could indicate that a device or process may be equivalent to what is claimed, it cannot be a necessary element to an infringement analysis — permitting a jury to even consider it as a factor would direct the jury's attention away from the only pertinent inquiry: is the accused device or process only insubstantially different from the claimed invention.

One might suggest that some members of this Court, as well as some commentors, are of the opinion that something is inherently wrong with the doctrine of equivalents. There is no evidence to support that position. This Court, however, is powerless to reverse the legacy of Graver Tank and the preceding pronouncements of the Supreme Court. The decisions of the Supreme Court prior to Graver Tank are still significant, as Graver Tank only restated the tripartite test which had became the benchmark for the doctrine of equivalents long before:

It is instructive that none of the institutional Amicii have submitted any empirical evidence that the doctrine is "broken". In fact, many of them have submitted "neutral" briefs taking no position. If the doctrine were truly disfunctional, the outery from the intellectual property organizations (be they proplaintiff or pro-defendant) would be deafening, not merely "interested."

The obligation to follow precedent begins with necessity, and a contrary necessity marks its outer limit. With Cardozo, we recognized that no judicial system could do society's work if it eyed each issue afresh in every case that raised it. See B. Cardozo, The Nature of the Judicial Process 149 (1921). Indeed, the very concept of the rule of law underlying our own Constitution requires such continuity over time that a respect for precedent is, by definition, indispensable.

Planned Parenthood of SE PA. v. Casey, 120 L.Ed. 2d 674, 699 (1992)

D. The Only "Limitations" On The Doctrine Of Equivalents Are Prosecution History Estoppel And The Scope Of The Prior Art

It is without argument that prosecution history estoppel and the scope of the prior art limit the scope of equivalents that a claimed invention is entitled to. See, e.g., Texas Instruments, Inc. v. ITC. 805 F.2d 1558, 1571, 231 U.S.P.Q. 833, 841 (Fed. Cir. 1986). However, even these limitations are defined as of the date of the granting of the patent. Equivalency is limited only by what was given up during prosecution and what was part of the prior art, both of which can be readily determined at the time of issuance. Prosecution history estoppel can arise only during prosecution and the scope of the prior art, by definition, can never expand after the date of invention. There have been no other limitations placed upon the doctrine in any Supreme Court decisions to date, and obviously this Court is not at liberty to create its own limiting factors without precident.

Some of the earlier cases on the subject mention that "pioneering" inventions are entitled to a broader range of equivalents. See e.g., Sanitary Refrigerator Co. v. Winter, 280 U.S. 30, 39-40 (1929). The pioneering status of an invention is in actuality merely a recognition that the prior art limits the

permissible range of equivalents. The doctrine of equivalents cannot be employed to "give the patentee something which he could not lawfully have obtained from the PTO had he tried." Wilson Sporting Goods v. David Geoffrey & Assoc., 904 F.2d 677, 684, 14 U.S.P.Q.2d 1942, 1948 (Fed. Cir. 1990). It is instructive to note that the Wilson court went on to point out that the scope of the claims is established during prosecution, and the doctrine of equivalents is merely employed to analyze whether or not an accused device falls within that scope. "The claims - i.e., the scope of patent protection as defined by the claims - remain the same and application of the doctrine expands the right to exclude to 'equivalents' of what is claimed." Id. Post-issuance events, such as copying, should not be permitted to reduce the allowable scope of equivalents based upon the particular "equities" of the case. In fact. Defendant would have this Court reduce the scope of equivalents in the present case to nothing, based solely upon the scrupulous motive of the infringer.

Finally, Defendant has once again chosen to reargue the facts of the present case even though this Court has only asked for rebriefing on three specific, questions. Consequently, most of Defendant's supplemental brief is irrelevant and should be stricken, or at least ignored. However, lest this Court be misled, it must be pointed out that certain "facts" discussed by the Defendant are, at a minimum, taken wholly out of context. For example, Defendant argues that an estoppel exists because at pH's below 6.0, "severe foaming problems would be encountered rendering the process useless in production." Warner-Jenkinson's Supplemental Brief at However, no such evidence was ever before the PTO. Moreover, the evidence actually showed, however, that Hilton Davis successfully tested the patented process at pH values as low as 2.2! A1406; 1410-11; 1516-7; 3108-45. Should the court wish to revisit these "facts" mentioned by Defendant, Plaintiff merely incorporates all of the arguments and record support contained in its original brief on appeal.

E. A Requirement For A Showing Of Additional Factors Beyond The Tripartite Test Would Violate the Constitutional Principles Upon Which Our Patent System Rests

Our patent system is grounded in the authority given to Congress by the Constitution to "promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." U.S. CONST. art. I, § 8.

The patent law confers a benefit on the discoverer of any artful invention, which consists in a monopoly of his invention for a limited time. The consideration which it requires him to pay for this benefit, is to put the public in possession of his invention; so as to enable all to use it, after his monopoly shall expire; and all to avoid involving themselves in controversies and difficulties, by inadvertently infringing it while it continues.

Evans v. Eaton, 20 U.S. 356, 413-4 (1822)(quoting Justice Washington's jury instruction).

In actuality an inventor "receives nothing from the law that he did not have before, and that the only effect of the patent is to restrain others from manufacturing and using that which he has invented." Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 404, 424 (1908). In other words, an inventor is not obligated to obtain a patent in order to practice the invention. Id. In fact, particularly with a process such as that involved in the present appeal, the inventor can readily practice the invention in total secrecy, never permitting the details to see the light of day. However, in order to encourage disclosure, and thereby promote the advancement of technology, the Constitution permits Congress to guarantee to the inventor the exclusive right to the invention for a limited period of time. Id. The exclusive right to an invention is a strong incentive to invest considerable amounts of time and

money in research, and is precisely what drives many corporations in their research and development activities. Locite Corp. v. Ultraseal Ltd., 781 F.2d 861, 876, 228 U.S.P.Q. 90, 100-1 (Fed. Cir. 1985)("[t]he patent system, which is rooted in the United States Constitution, serves a very positive function in our system of competition, i.e., 'the encouragement of investment based risk'").

Thus, the purpose of our patent system is to protect the inventor, thereby encouraging research and development activities. An inventor is not concerned with "how" an infringer arrives at an infringing device or process; the impact on the inventor and the invention's market is the same. The inventor's only concern is that the law will stop the infringement from occurring. To only find infringement by equivalence when certain "equitable" factors are present, is tantamount to a taking of a portion of the inventor's exclusive right in the invention, and therefore will foster concealment rather than disclosure:

"Patents for inventions are not to be treated as mere monopolies and, therefore, odious in the eyes of the law; but they are to receive a liberal construction, and under the fair application of the rule, ut res magis valeat quam pereat," are, if practicable, to be so interpreted as to uphold and not to destroy the right of the inventor."

Turrill v. Michigan Southern & Northern Indiana Ry. Co., 68 U.S. 491, 510 (1864).

As courts have stated on numerous occasions, and as discussed previously herein, a patented invention covers the exact form claimed in the patent, as well as all equivalent forms. See, supra at 11. To place additional requirements upon an infringement inquiry based upon equivalency, such as a proof of copying, would allow these so-called "innocent infringers" to circumvent the Constitutional precepts governing patent law. In other words,

[&]quot;That the thing may rather have effect than be destroyed."

patentees must be given the full benefit of their inventions, with the ability to prevent all manners of infringement (i.e., unscrupulous copying as well as innocent infringement). Only by providing broad coverage to patentees, are the goals required by the Constitution advanced. See, e.g., Winans v. Denmead, at 341 ("specifications are to be construed liberally, in accordance with the design of the Constitution and the patent laws of the United States, to promote the progress of the useful arts, and allow inventors to retain to their own use, not any thing which is matter of common right, but that which they themselves have created").

Courts have also often discussed the fact that patent claims are always entitled to cover equivalent devices or processes. The duty of the jury is to determine the appropriate range of equivalents which the patent owner is entitled to. See, e.g., Imhaeuser v. Buerk, 101 U.S. 647 (1880)("a patentee may doubtless, invoke the doctrine of equivalents against an infringer of the patent); Gill v. Wells, 89 U.S. 1, 15 (1874)("the inventor of a new and useful combination of old ingredients, is as much entitled to claim equivalents as any other class of inventors"). In fact, at one time it was common for patentees to recite in their claims that the scope included equivalent structures or processes. The Commissioner of Patents, however, recognized that the scope of a patent claim always included equivalents, and thus the practice was dropped:

An inventor is always entitled to equivalents — that is to say, to devices which operate in substantially the same way to accomplish substantially the same result in a combination. In the present case if the applicant desires nothing more than the benefit of the law of equivalents, the expression "or equivalent cleaning device" is surplusage. If he desires some advantage beyond that which the law of equivalents gives him, he is seeking more than can properly be accorded to him.

Ex parte Cook, 1890 C.D. 81, 82. To require a showing of sufficient equitable factors prior to invoking the doctrine of

equivalents would amount to a taking, applied retroactively, of a portion of the patent scope given by the Patent Office to the inventor, and to which the inventor is entitled. Furthermore, if patentees are no longer automatically entitled to an appropriate range of equivalents, regardless of the equities of the particular case, one can imagine the length to which patentees will have to go to ensure that as many possible equivalents they can imagine are included in their specification and claims.

Another benefit of our patent system is that disclosure of inventions (by way of patents) enhance the public knowledge. Paulik v Rizkalla, 760 F.2d 1270, 1276, 226 U.5 P.Q. 224, 228 (Fed. Cir. 1985). Although this is a secondary benefit, it also promotes the advancement of technology by bringing new developments to the attention of other researchers. Any disincentive to patenting, such as would occur should this Court follow Defendant's approach, will inhibit such flow of scientific information. In most instances, it would be rare for independent development to result in a process which literally infringes a patent. Therefore, if patentees are not permitted to prevent so-called innocent infringement through the doctrine of equivalents, there would be no incentive to disclose through a patent any process which could be kept a trade secret.

As the Court in Graver Tank clearly warned, to prohibit only literal infringement "would foster concealment rather than disclosure of inventions, which is one of the primary purposes of the patent system." Graver Tank, at 607. See also, Paulik v. Rizkalla, 760 F.2d 1270, 1276, 226 U.S.P.Q. 224, 228 (Fed. Cir. 1985)(Newman J.):

The exclusive right, constitutionally derived, was for the national purpose of advancing the useful arts — the process today alled technological innovation. As implemented by the patent statute, the grant of the right to exclude carries the obligation to disclose the workings of the invention, thereby

adding to the store of knowledge without diminishing the patent-supported incentive to innovate.

But the obligation to disclose is not the principal reason for a patent system; indeed, it is a rare invention that cannot be deciphered more readily from its commercial embodiment than from the printed patent. The reason for the patent system is to encourage innovation and its fruits; new jobs and new industries, new consumer goods and trade benefits. We must keep this purpose in plain view as we consider the consequences of interpretations of the patent law such as in the Board's decision.

Thus, this Court should ensure that patentees are given the broad coverage, over copyists and independent developers alike, which they are entitled to.

F. A Requirement For A Showing Of Additional Factors Beyond The Tripartite Test Would Lead To Less Certainty Of Patent Claim Scope

Members of this Court and various commentators have also suggested that requiring a showing of equities, such as copying or imitation, would add certainty to the application of the doctrine of equivalents. See, e.g., International Visual v. Crown Metal Mfg.. 991, F.2d 768, 776, 26 U.S.P.Q. 2d 1588, 1593 (Fed. Cir. 1993) (Lourie, J., concurring) It is certainly true that one purpose of peripheral claiming is to put the public on notice as to what is covered by the right to exclude. Id. Adding equitable factors to the doctrine of equivalents, however, would lead to more uncertainty of the scope of the right to exclude. It is illogical to assume that adding additional (and subjective) factors onto a legal analysis can make that analysis more certain. It has also been proposed that there must initially be an equitable showing by a plaintiff before the tripartite test can be given to a jury. Defendant's Supplemental Brief at 32. It has also been proposed that the court should consider all factors together, e.g., copying, the degree of similarity of the accused device and the claims, etc. International Visual, at 593. All of these proposals, however, merely adds another "test" which must be met, thereby creating even more uncertainty as to the scope of a patent.

Simply put, adding additional factors to an already difficult test creates more uncertainty. For example, should a manufacturer learn of a competitor's patent after its device has been produced, the manufacturer would have to not only analyze whether or not its device met the tripartite test, but also whether or not the "equitable factors" would be in its favor before proceeding with marketing its product. This latter question would be exceedingly difficult to determine, particularly in light of the wide-ranging factors which some have suggested. A three-part test cannot suddenly become a four-part test without simultaneously becoming more uncertain and difficult in application, particular when that fourth part is as subjective as an equitable determination would be. Experts can assist a jury in reaching an objective determination as to the tripartite test. Experts cannot, however, give much assistance concerning what constitutes "equity" or "fairness."

Should this Court adopt for the first time a requirement of a showing of equities when applying the doctrine of equivalents, the public will be even more in the dark whether or not the device or process they propose to make, use or sell will be deemed an infringement. The public would have to not only determine if the device or process met the tripartite test, but would also have to determine if the "equities" would be in their favor in an infringement suit. For example, would it be sufficiently "inequitable" to trigger the doctrine of equivalents if the "infringer" merely knew of the patent, or tried to design around the patent, or learned of the device or process without knowledge of the patent? What must be "copied", the process or the claimed invention? How "independent" must "independent development" be?

A determination of where the equities fall is extremely difficult to predict, as evidenced by the facts of the present case. There was evidence that Defendant received information about Plaintiff's process (but not its patent) through a third party which enabled Defendant to produce a commercially viable process. A271; 1269-73. Should any of the proposed analytical frameworks be adopted, a prospective infringer would, in addition to analyzing the tripartite test, also have to somehow determine if this receipt of information would be enough of an equitable showing, particularly when combined with other unspecified factors, to trigger the applicability of the doctrine of equivalents. And what if the prospective infringer doesn't even know where the information came from — he's still a "copyist."

Likewise, potential infringers will have no way of judging whether or not the equities would be in their favor; e.g., can they exhibit sufficient independent development? Significant sums of money are invested in new technologies, and it is possible that during the course of one's research and development various issued patents will be discovered. Under the framework proposed by Defendant and others, the developer would have to base a decision concerning further costly development work on a guess of whether or not it had acted in an "equitable" manner, whatever that means. This adds enormous uncertainty to patents.

Patent owners, likewise, will also have no reasonable means by which they can determine if an infringement suit will be successful. In order to prevail, a patent owner will have to show that the defendant was guilty of imitation or some other inequity, and yet the patent owner will have no means by which to determine this without resort to costly, and possibly inconclusive, discovery.

Only by granting to inventors the maximum possible scope of coverage are the goals of our patent system, as required by the Constitution, advanced. The simple, tripartite test, without the added, nebulous baggage of equitable factors, gives a clear indication of the scope of a patent to patent owners and potential infringers alike.

G. A Requirement For A Showing Of Additional Factors Beyond The Tripartite Test Would Discourage Designing-Around Patents

Our patent system has always encouraged so-called "designingaround" of patents. See, e.g., London v. Carson Pirie Scott & Co., 946 F.2d 1534, 1538, 20 U.S.P.Q.2d 1456, 1458 (Fed. Cir. 1991)("designing around or inventing around is encouraged, piracy is not"); Read Corp. v. Portec Inc., 970 F.2d 816, 828, 23 U.S.P.Q.2d 1426, 1436 (Fed. Cir. 1992). In fact, an entire course on designing-around is now offered to patent practitioners. "Designing Around" Valid U.S. Patents, Patent Resources Group, April 18-20, 1994. One of the benefits of designing-around patents is that often the changes that are made involve substantial advances in the technology, as one attempting to design-around always desires to improve the patented device or process whenever possible. Slimfold Mfg. Co. v. Kinkead Industries Inc., 932 F.2d 1453, 1457, 18 U.S.P.Q.2d 1842, 1845-6 (Fed. Cir. 1991)("Designing around patents is, in fact, one of the ways in which the patent system works to the advantage of the public in promoting progress in the useful arts, its constitutional purpose"). By engrafting equitable factors, such as a lack of independent development, onto the doctrine of equivalents, designing-around will be strongly discouraged. In fact, it is likely that, should this Court require a showing of equitable factors, many companies will forego a review of recently-issued patents so that any appearance of impropriety or "copying" can be avoided. Since "outright and forthright duplication is a dull and very rare type of infringement," Graver Tank, at 607, it is unlikely that a company which consistently practices independent development of all of its products would ever be accused of infringement. By burying its head in the sand, such a company can never be accused of copying or imitating another's patented device or process.

Obviously such a scenario would remove one of the great benefits of our patent system, namely the advancement of technology by the designing-around of patents: Conduct such as Smith's, involving keeping track of a competitor's products and designing new and possibly better or cheaper functional equivalents is the stuff of which competition is made and is supposed to benefit the consumer. One of the benefits of a patent system is its so-called "negative incentive" to "design around" a competitor's products, even when they are patented, thus bringing a steady flow of innovations to the marketplace. It should not be discouraged by punitive damage awards except in cases where conduct is so obnoxious as clearly to call for them. The world of competition is full of "fair fights," of which this suit seems to be one.

State Industries, Inc. v. A.O. Smith Corp., 751 F.2d 1226, 1235, 224 U.S.P.Q. 418, 424 (Fed. Cir. 1985). The consideration of equitable factors such as a lack of independent development, to whatever degree, would essentially have a punitive effect on those who legitimately design around patents. Should the conduct be willful, the court can always enhance damages even when infringement is by equivalency. That, however, is where any inquiry of motive should stop.

A requirement for a showing of "equitable" factors such as lack of independent development can and will lead to disturbing and "inequitable" results. Assume that company A owns a valid patent for a chemical process. Company B and C both begin practicing chemical processes that are identical to one another, and are equivalent to that claimed in Company A's patent by application of the tripartite test. While Company C independently developed its process, however, Company B merely reviewed A's patent and made a minor, insubstantial change. Under the system proposed by Defendant and others, Company B would be guilty of infringement and prevented from practicing its process, while Company C would be free to continue using the very same process! In effect, Company C would receive the benefit of Company A's patent, even though it did not, and likely could not, obtain a patent of its own.

Moreover, Company A is being unjustly deprived of the benefit of its invention. The public is also confused because Company C gets away with infringement while Company B (practicing the same process) does not. Such a chaotic state of affairs serves neither the Constitution per Graver Tank.

Furthermore, in the above scenario what is the outcome if Company D enters the picture and copies the process from Company B or C? If they are deemed an "unscrupulous copyist" because of their copying, Company C is suddenly able to prevent others from "making, using or selling" its process, even though it could not have obtained a patent on its process! Although such a fact situation is very possible, the answer proposed by Defendant's approach leads to absurd and unfair results. The patentee is entitled to have his claims cover all equivalents, and the public is entitled to everything that isn't so covered.

And what of the patent owner when he must decide whether or not an infringement suit is warranted? His competitor is using a product which the patent owner believes is equivalent to the claimed invention, however the patent owner has no information concerning "how" his competitor developed its product, or any other "equitable" factors. Doesn't our patent system deserve more certainty? As Justice Story so eloquently stated over 150 years ago:

Patents for inventions are not to be treated as mere monopolies odious in the eyes of the law, and therefore not to be favored; nor are they to be construed with the utmost rigor, as strictissimi juris. The constitution of the United States, in giving authority to congress to grant such patents for a limited period, declares the object to be to promote the progress of science and useful arts, an object as truly national, and meritorious, and well founded in public policy, as any which can possibly be within the scope of national protection. Hence it has always been the course of the American courts, (and it has latterly become that of

the English courts also,) to construe these patents fairly and liberally, and not to subject them to any over-nice and critical refinements. The object is to ascertain, what, from the fair sense of the words of the specification, is the nature and extent of the invention claimed by the party; and when the nature and extent of that claim are apparent, not to fritter away his rights upon formal or subtle objections of a purely technical character.

Ames v. Howard, 1 F. Cas. 755, 756 (C.C.D. Mass. 1833). Our patent system has always been based upon the granting of a reward to the inventor for his or her contribution to the advancement of useful science. For example, unlike most countries, patents are granted to the first to invent rather than the first to file a patent application. Should this Court go beyond a simple scientific analysis of whether or not a device or process is the mechanical or chemical equivalent to what is claimed, the whole basis for our patent system will be undermined.

III. Consideration of The Doctrine Of Equivalents In A Particular Case Is Not Discretionary With The Court

The second question posed by the Court is inexorably linked to the first and third questions. The question suggests that the trail court should intervene in some way in its "equitable" role. Plaintiff submits that there is no "discretion" involved. As the answer to the first question demonstrates, the doctirne is not "equitable", and htere is no "copying" threshold to trigger its application. Likewise, as the answer to the third question discussed below demonstrates, a factually supported equivelents issue must be submitted to the jury in a jury case. Thus, there is no descretion "-- consideration of the doctrine is automatic in every case where no literal infringement is present. Whether equivilence is actually found is a separate question of fact. Consideration of the doctrine, for the very same reasons outlined above, is not discretionary, since the claims must be deemed to cover the entire range of permissible

equivalents. Rendering the doctrine of equivalents "discretionary", for which there is no legal precident, would essentially involve a taking of a portion of the right to exclude which has been granted to the inventor. The scope of the inventor's right to exclude is established when the patent issues, and discretion cannot be employed to diminish this right. Graver Tank at 607 ("[I]t would deprive him of the benefit of his invention").

While Graver Tank states that the doctrine of equivalents is utilized "when the proper circumstances for its application arise," Id. at 608, it goes on to cite the familiar tripartite test as establishing the "proper circumstance." Nowhere is there any suggestion that consideration of equivalents is descretion.

Nor is it wise to base consideration of the doctrine on the "circumstances of the case", as suggested by the second question. As outlined above, adding additional factors and "equities" is an invitation to mischief, unfairness and uncertainty. Investing a trial court with this type of "discretion" transforms a patentee's constitutionally granted absolute right to exclude into a nebulus fairness contest. Graver Tank guarantees a patentee the full enjoyment of the patented invention. That guarantee cannot be diminished by any discretionary "equity" in favor or an infringer.

Additionally, as discussed in detail below, the doctrine of equivalents is, and has always been, a question of fact for the jury. Should this Court make application of the doctrine discretionary with the trial court, a plaintiff's unequivocal right to a trial by jury of the issue would be unconstitutionally denied. Furthermore, there is no support for the "gatekeeper" approach which some have advocated, inlcuding in the present case, where the judge must first determine if the "equities" of the particular case will support the patent owner's invocation of the doctine of equivalents, before the "scientific" application of the triparte test can go to the jury. Such an approach would be extraordinary, and to Plaintiff's knowledge, unparalleled in any other area of the law. The judge can only come between the jury and the facts when there are insufficient facts, and

therefore reasonable minds could not differ. Fed. R. Civ. P. 50 and 56 (judgment as a matter of law and summary judgment, respectively). Any other "discretion" exercised by the judge is clearly an abusive one, and violates the jury trial right contained in the Constitution. See, e.g., Jacob v. New York, 315 U.S. 752, 756. "A due respect for the statutory guaranty of the right of jury trial, with its resulting benefits, requires the submission of [a] case to the jury" when it is possible for the jury to reasonably find for either party (i.e., when the standard for the granting of a judgment as a matter of law is not met). Id.

IV. The Issue of Infringement Under The Doctrine of Equivalents, Is, Like Literal Infringement, An Issue of Fact To Be Submitted To The Jury In A Jury Case

A. Introduction:

As shown above, there is nothing in the doctrine of equivalents which places it in the "equity" jurisprudence, and therefore only a question for the court. Rather, under well-established Supreme Court precedent, the doctrine of equivalents <u>must</u> be submitted to the jury where there exist issues of fact concerning the tripartite test. To do otherwise, violates the Seventh Amendment right to jury trial. Moreover, although *Graver Tank* and its predecessors and progeny have existed for over 150 years, no appellate court has ever suggested that the doctrine of equivalents issue is to be withheld from the jury because it is "equitable." To now so hold would be an unprecedented departure from an unbroken line of cases to the contrary.

Plaintiff respectfully submits that the characterization by the Court in the third question of the "issue of infringement under the doctrine of equivalents" as a "remedy" is inaccurate. In <u>any</u> case wherein infringement (literal or under the doctrine of equivalents) is asserted, the remedy is what is sought by the patentee, such as compensatory damages and/or an injunction, i.e. the remedies offered by 35 USC § 283, 284. Infringement decides liability, but the determination of the remedy is a separate question. As explained more fully below, controlling Supreme Court precedent holds that the most important factor in analyzing the right to a jury trial under the Seventh Amendment, is whether the remedy sought is legal or equitable in nature. The remedy sought (and obtained) here is not the doctrine of equivalents, but compensatory damages and an injunction

Moreover, Defendant has not responded to the third question posed by the Court. Instead, Defendant asserts that "the determination of whether the doctrine of equivalents should be invoked as an exception to the rule that claims define the invention is an equitable determination to be decided by the Court as a matter of law and is not an issue of fact to be submitted to a jury." (Supp. Brief, at 31). The inference to be drawn from such silence is that Defendant, too, believes the issue is for the jury.

B. Controlling Supreme Court Precedent Binding Upon this Court Holds That The Determination of Infringement By Equivalents Is A Question of Fact Which Has To Be Submitted To The Jury As A Matter of Right

The earliest Supreme Court statement on patent infringement applying the doctrine of equivalents is Winans v. Denmead, 56 US 330 (1853). In Winans, there was no question of literal infringement; the only questions were construction of the patent and of infringement under the doctrine of equivalents. Applying Russell v. Cowley & Dixon 1 Websters Patent Cases 463, and Morgan v. Seaward 1 Websters Patent Cases 171, the patentee in Winans proposed that "the question must always be, whether whatever the shape [the defendant] adopts, [the defendant] is not availing himself of the principle first suggested by the patentee; a question which in a court of law is at all times a question not for the court, but the jury; after the former shall have given to the specification that construction which is to govern the latter in determining whether

the infringement complained of falls, substantially, in principle and mode of operation, within the plaintiff's patent." 56 U.S. at 335 (emphasis supplied).

The patentee further contented, that "the authorities here cited, and which were relied on in the court below, are held to sustain the prayer of the plaintiff; that, having pronounced upon the construction of the specification, the question of infringement should be left to the jury." Id. at 336 (emphasis supplied).

Upholding the patentee's assertions, Winans held that "whether in point of fact, the defendants did copy the plaintiff's invention [in accordance with the doctrine of equivalents], is a question for the jury and the court erred in not leaving that question upon evidence in the case, which tended to prove the affirmative." Id. at 344.

Further support for Plaintiff's position is found in Battin v. Taggert, 58 U.S. 74 (1854). Battin held that, "questions of fact'... such as the identity of the machine used by the defendant with that of the plaintiffs', or whether they have been constructed and act on the same principle," are questions "which come within the province of a jury." Id. at 84 (emphasis supplied). The emphasized language is nothing but an early doctrine of equivalents test, and is very similar to the language used in Winans, which was decided the year before (1853).

While labelling a particular determination as factual does not necessarily impart to it a Seventh Amendment right to jury trial, it is beyond question that the determination of infringement by equivalents is a determination of fact. See Graver Tank, 339 U.S. at 609; San Studs, Inc. v. ATA Equipment Leasing, Inc., 872 F.2d 978, 986 (Fed. Cir. 1989), citing Radio Steel and Manufacturing Co. v. MTD Products, Inc., 731 F.2d 840, 847 (Fed. Cir. 1984), cert. denied, 469 U.S. 831 (1984); Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, 626, 225 U.S.O.Q. 634, 642 (Fed. Cir. 1989)(Newman, J.)("[b]oth infringement and equivalents are questiosn of fact"); Intel Corp. v. U.S. International Trade Comm'n, 946 F.2d 821, 832, 20 U.S.P.Q. 2d 1161, 1171 (Fed. Cir. 1991)(Archer, J.), citing Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 936, 4 U.S.P.Q. 2d 1737, 1741 (Fed. Cir. 1987)(in banc).

In Tyler v. Boston, 74 U.S. 327 (1868), a "chemical equivalents" case, the Supreme Court approved the following charge to the jury by the lower court:

whether one compound of given proportions is substantially the same as another compound varying in proportions — whether they are substantially the same or substantially different — is a question of fact and for the jury. Id. at 330-331.

In Royer v. Schultz Belting Co., 135 U.S. 319 (1890), as in Winans, there was no question of literal infringement and hence only infringement by equivalents was at issue. The Court held that, "the circuit court erred in not submitting to the jury of question of infringement under proper instructions."

In the only known explicit consideration of this specific issue by a member of this Court, Judge Newman dissented in *Malta v. Schulmerich Carillons*, 952 F.2d 1320, 1335-45, 21 U.S.P.Q.2d 1161, 1172-81 (Fed. Cir. 1991), thusly:

Infringement s a question of fact, ... as is the question of equivalence ... the issues both of literal infringement and infringement in secondance with the doctrine of equivalents [are] the province of the jury ... The role of the jury in civil litigation is not ours to change ... the right to jury trial of [the] factual issue [of infringement in accordance with the doctrine of equivalents cannot] be extinguished because the doctrine of equivalents was "judicially designed to do equity". The jury has been historically charged with the factual inquiry of equivalency. Id. at 1172-1181.

As so eloquently stated by Judge Newman in Malta, if this Court answers question 3 in Defendant's favor, it will be "denying [the] litigant's historic right" to a jury tria! under the Seventh Amendment. Id. This Court cannot ignore binding Supreme Court precedent, and hence, has no choice, but to affirm the unfettered right to trial by jury on the issue of doctrine of equivalents.

C. The Chauffeurs Analysis Shows The Doctrine of Equivalents is a Jury Issue

The controlling Supreme Court decision dealing with the Seventh Amendment and the right to jury trial is Chauffeurs, Teamsters and Helpers Local No. 391 v. Terry, 494 US 558, 565, (1990), where it was held that

To determine whether a particular action will resolve legal rights, we examine both the nature of the issues involved and the remedy sought. "First we compare the statutory action to 18th-century actions brought in the courts of England prior to the merger of the courts of law and equity. Second, we examine the remedy sought and determine whether it is legal or equitable in nature." ... The second inquiry is the more important in our analysis.

See, also, Beacon Theaters Inc. v. Westover, 359 US 500 (1959) (holding that the right to a jury trial of a legal claim involving factual issues such as liability under the Sherman Act and the Clayton Act, cannot be impaired by blending the legal claim with a demand for equitable relief; and Dairy Queen Inc. v. Woods, 369 US 469 (1962) (holding that insofar as a complaint for trademark infringement requests a money judgment it presents a claim which is unquestionably legal and so long as any legal cause is involved in a case, even if the equitable causes clearly outweigh the legal cause, the jury rights created by the legal cause, control).

Applying Chauffeurs to the present case leads to the inescapable conclusion that the determination of equivalents, which is part and parcel of the determination of patent infringement, is legal and triable as a mater of right to a jury⁸ because (1) at least three closely analogous pre-1791 American/English actions were

⁸ Tights v. Stanley, 441 F.2d 336, 337-338, 169 U.S.P.Q. 578, 580 (4th Cir. 1971), specifically identified "a finding of equivalence" (citing Graver Tank), as a factual determination that was for the jury.

regularly tried to a jury, and (2) the relief requested in the present case is legal in nature.

In the present case, Plaintiff asserted infringement under the doctrine of equivalents. Further, as relief, Plaintiff sought (and was awarded) substantial compensatory damages and a permanent injunction. Thus, the issue presented here is whether this infringement claim coupled with this claim for relief, is a question for the jury or an equitable issue to be decided by the Court. Clearly, this set of circumstances presents a jury issue.

Chauffeurs instructs that in assessing the right to jury trial, a comparison must be made between the action at issue and "18th century actions brought in the Courts of England prior to the

Plaintiff sought fourteen million dollars and was awarded 3.7 million dollars. (A 38-9).

Amicus Amberg believes that the threshold question is "whether the Seventh Amendment permits a flip-side carving of an entire, self-standing, purportedly-equitable claim out of an overall legal action for purposes of denying a right to jury trial of that claim." Amberg Brief at page 10. Plaintiff disagrees. As demonstrated above, the doctrine of equivalents is not "equitable", "purportedly" or otherwise. Moreover, as stated recently by one commentator, [t]he "equitable" nature of the doctrine of equivalents has been overplayed, and it has a decidedly hollow ring." Gregory J. Smith, The Federal Circuit's Modern Doctrine of Equivalents in Patent Infringement, 29 Santa Clara Law Review 901, 914 (1989). In this respect, Amicus American Bar Association (ABA) correctly points to the fact that the doctrine of equivalents originated in actions at law, in the English common law action for patent infringement and the United States statutory action for patent infringement. ABA Brief, at 12. In fact, Defendant acknowledges that "the Supreme Court in Graver Tank stated that a finding of equivalents is a determination of fact and further that like any other issue of fact, final determination requires a balancing of credibility, persuasiveness, and weight of evidence." Defendants's Supp. Brief, at 35. Hence, a determination of equivalents is hardly an "equitable" claim. Further, as noted above, the doctrine of equivalents is part and parcel of the determination of patent infringement and therefore cannot be "parsed" out of patent infringement. Finally, in the present case, Plaintiff has only asserted infringement by equivalents, which also militates against any parsing, since to "parse" would eliminate the claim of infringement altogether.

merger of law and equity." 494 US at 565. Chauffeurs also teaches that:

The Seventh Amendment provides that "[i]n suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved." The right to a jury trial includes more than the common-law forms of action recognized in 1791; the phrase "Suits at common-law refers to "suits in which legal rights [are] to be ascertained and determined in contradistinction to those where equitable rights alone [are] recognized, and equitable remedies [are] administered."...[T]he amendment then may well be construed to embrace all suits which are not of equity and admiralty jurisdiction, whatever may be the peculiar form which they may assume to settle legal rights...The right extends to causes of action created by Congress. 494 US at 564-5."

 The Most Closely Analogous (if not identical) Action To Contemporary Patent Infringement In Pre-1791 America Was The Statutory Action For Damages For <u>Infringement Of A Patent</u>¹¹

Plaintiff agrees with the excellent historical analysis provided by Amicus Amberg insofar as it demonstrates an unfettered right to jury trial for the determination of equivalents in a case where the relief requested includes a claim for compensatory damages. Plaintiff also agrees with the position of Amicus ABA that: "the doctrine of equivalents [is not] a separate cause of action.

It has been recognized that in determining the most closely analogous action, "reference must be made not only to the English practice of the time, but to the practice in the United States as well." Patry, Right To A Jury In Copyright Cases, 29 Copyright L. Socy. 131, 145 (1981), citing Parklane Hosiery Co., Inc. v. Shore, 439 U.S. 332 (1979); Carns v. Loether, 415 U.S. 189 (1974); Colgrove v. Battin, 413 U.S. 149 (1973); Ross v. Bernhard 396 U.S. 531 (1970); Capital Traction v. Hof, 174 U.S. 1 (1899) and Parsons v. Bedford, 28 U.S. (3 Pet.) 433 (1830).

The cause of action is patent infringement, regardless of whether the infringement is literal or under the doctrine." ABA Brief, at 12. Hence, the action to which an analogy must be found is <u>patent</u> infringement, plain and simple.

In this country, in 1790 (before passage of the Seventh Amendment in 1791), Congress had already created a statute, which provided only for monetary relief against infringers of patents, specifically "such damages as shall be assessed by a jury" (Act of April 10, 1790, chapter 7, section 4, 1 Stat. 109). Therefore, before 1791 there was an action created by Congress which was identical to the present action for patent infringement and damages. The statute of 1790 made it clear that jury trial was available as a matter of right in this statutory action. As the Seventh Amendment reference to "suits at common law" has been interpreted to include "causes of action created by Congress" (Chauffeurs, 494 US at 564), the Seventh Amendment preserved this right to a jury trial in a patent infringement action seeking damages created by the Statute of 1790. That right continues to the present day.

The Seventh Amendment reads in its entirety: "In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by jury, shall be otherwise reexamined in any Court of the United States, than according to the rules of the common law." The first Supreme Court decision addressing the Seventh Amendment right to a jury trial was Parsons v. Bestford, 28 US 433 (1830), wherein the Court held: "[t]he phrase common law, found in [the Seventh Amendment], is used in contradistinction to equity and admiralty, and maritime jurisprudence." The analogy between contemporary patent infringement and a pre-1791 action at law for infringement of a patent, is all the more appropriate because of the clear and unambiguous characterization in the Statute of Monopolies, of pre-1791 English patent infringement actions, as actions at common law.

Another Closely Analogous Action Was The Action At Common Law For Infringement of A Patent Brought In pre-1791 English Courts

Patent infringement actions brought in 18th century England were commonly brought at law and were tried to a jury. See, e.g., Arkwright v.Nightingale, Websters Patent Cases 64 (C.P. 1785); Bramah v. Hardcastle, 1 Carpmael 168 (K.B. 1789). The English Statute of Monopolies, 21 Jac. 1, C. 3 (1623), provided that patent infringement actions were to be heard at common law ("the force and validity of [letters patent] ... ought to be and shall be forever hereafter examined, heard, tried, and determined, by and according to the common laws of this realm and not otherwise").

As part and parcel of the jury determination of patent infringement, the doctrine of equivalents developed in England in the law courts and was tried to juries. In Russell v. Cowley & Dixon, 1 Websters Patent Cases 459, 463 (Ex. 1834), it was held that "the question of colorable or substantial difference was referred to the jury." Clearly the court was referring to infringement by eovilarients, not literal infringement. In Morgan v. Seaward, 1 Websters Patent Cases 170, 171 (Ex. 1836), the court (Alderson B.), instructed the jury that "the question would be, simply, whether the defendant's machine was only colorably different; that is, whether it differed in the substitution of mechanical equivalents for the contrivances which were resorted to by the patentee." The court continued: "therefore the two machines were alike in principle; one man was the inventor of the principle, and the other has adopted it; and though he may have carried it into effect by substituting one mechanical equivalent for another, still you [the jury] are to look to the substance and not the mere form, and if it is in substance an infringement, you ought to find so." Again the court was referring to the well-known infringement by equivalents.

Thus, the above late 18th-century English actions for patent infringement clearly show that infringement was per se an action at

law and was tried to a jury. While no pre-1791 English case applying the doctrine of equivalents has been located by Plaintiff (or by the several Amicii), it is apparent that early nineteenth century actions in England applying the doctrine of equivalents referred the issue to the jury. One may therefore properly surmise that the Seventh Amendment preserved the right to a jury trial in today's patent infringement cases (including those applying the doctrine of equivalents), a right which was available in the closely analogous action at law for patent infringement in pre-1791 English courts.

 Yet Another Closely Analogous Action To Contemporary Patent Infringement In Pre-1791 England Was The Statutory Action For Copyright Infringement

Another analogy is suggested by the Supreme Court in Graver Tank. The supreme Court opined that an infringer of a patent "was like one who seeks to pirate a copyrighted book or play." 339 U.S. at 607. Since a patent is typically published when it issues, the Court was likely referring to a published book or play as opposed to an unpublished one.

The first English copyright statute, The Statute of Anne, 8
Anne c. 19 (1710), granted authors the exclusive rights to print
books for fourteen years from the date of publication with a
renewal for another fourteen years if the author were alive at the
time for such renewal. Monetary damages were assessed by statute
for violations. In infringement actions concerning published works,
the author was to proceed at law for action on debt, for which there
was a right to a jury. Atcheson v. Everitt, 1 Cowper 382, 98 Eng.
Rep. 1142 (K.B. 1776); Calcraft v. Gibbs, 5 T.R. 19, 101 Eng.
Rep. 11 (K.B. 1792) (cited in Tull v. United States, 481 U.S. 412,
418 (1987).

Thus, following the Graver Tank analogy between patent and copyright infringement, since there was a common law right to jury trial in copyright cases, there should likewise be a right to jury trial in patent cases, without regard to whether the infringement is literal or by equivalents. Consequently, in accordance with the clear mandate of the Seventh Amendment, the right to jury trial in contemporary patent infringement actions has been preserved, due to the fact that such right was afforded in the closely analogous statutory action for copyright infringement in pre-1791 England. 15

The Nature Of The Relief Sought In The Present Case Is Legal

As recognized by the Chauffeurs Court, the determination of the most analogous or identical action is secondary to the determination of the nature of the relief sought. 494 US at 570. Also, money damages was the traditional form of relief offered in courts of law. Curtis v. Loether, 415 US 189, 196 (1974) In the present case, monetary, compensatory relief h s been requested and obtained by Plaintiff in the district court.

In Wooddell, Jr. v. International Brotherhood of Electrical Workers, Local 71, et al., 116 L.Ed. 2d 419 (1991), the Court held

A recent district court decision, Transmatic, Inc. v. Gidton Industries, Inc., 835 F. Supp. 1026 (E.D. Mich. 1993), found that the most analogous cause of action to the doctrine of equivalents in pre-1791 England was an action in equity for reformation of a contract. There is a very fundamental flaw in the Transmatic analysis. As recognized by this Court, "the purpose and function of the reformation of a contract is to make it reflect the true agreement of the parties on which there was a meeting of the minds." American President Lines, v. United States, 821 F.2d 1571, 1582 Fed. Cir. 1987. (emphasis supplied)

Although courts in dicta have suggested otherwise, a patent is not a "contract" between the public and the government. A patent is simply a grant by the Sovereign. U.S. CONST. Art. I, § 8. There is no "meeting of minds" involved in this grant! A patent is granted when the statutory tests have been met. 35 USC § 151. Moreover, a court cannot rewrite a patent. Hormone Research Foundation, Inc. v. Genetech, Inc., 904 F.2d 1558 (Fed. Cir. 1990). Also, correction of a patent is by reissue, not "reformation." 35 USC § 251. Thus, the Transmatic analogy breaks down.

that the plaintiff was entitled to a jury trial because "the damages sought [are] neither analogous to equitable restitutionary relief ... nor incidental to or intertwined with injunctive relief", "the remedy sought [is] legal." Id. at 427. So also, in the present case, the damages sought (and obtained), are not incidental or intertwined with the injunctive relief sought and (obtained). Therefore here, as in Wooddell, the remedy sought is legal.

Furthermore, of the remedies offered by the present patent statute 35 USC §§ 283-285, only compensatory relief, namely damages and reasonable royalty, is required to be awarded¹⁴, assuming a finding of liability and evidence of record stifficient to support the damage award. The historically equitable remedy of an injunction is discretionary¹⁵. The compulsory nature of damages/reasonable royalty after a finding of liability suggests that "when Congress in 1952 enacted the several forms of relief that could be made available to vindicate the exclusionary rights specified in 35 USC § 154, it intended to insure the availability, in all cases, of compensatory relief, a form of relief traditionally granted by a jury in a court of law in 18th century England." Amicus Amberg Br., at 18.

Amicus ABA's position on this point is also accurate: "[w]here the relief requested is both legal ... and equitable ... the right to jury trial on the claim for monetary relief is not lost by combining it with a claim for injunctive relief." ABA Brief, at 18.16 See, also, Kennedy v. Lasco, 414 F.2d 1249, 1252 (3rd Cir. 1969), ("the doctrine that an action which seeks both damages and equitable relief is predominantly equitable and therefore may not be tried by a jury, has been reversed," citing Dairy Queen, Inc. v.

⁴ "[T]he court shall award the claimant damages . . . 35 USC § 284.

^{*}The several courts . . . may grant injunctions . . . * 35 USC § 283.

Amicii Federal Circuit Bar Association and Amberg agree with the Plaintiff's conclusion for this most important second prong of the Chauffeurs test.

Wood, 369 US 469 (1962) and Beacon Theaters, Inc. v. Westover, 359 US 500 (1959)).

The same conclusion was reached in Swofford v. B&W, Inc., 336 F.2d 406 (5th Cir. 1964), cert. denied, 379 US 962 (1964). In Swofford it was held that a jury trial was available as a matter of right in a patent infringement case where the requested relief included an injunction and accounting of profits and damages. This pooint has also been conceded by Defendant. Supp. Brief, at 31 ("[b]ecause a patentee in a patent infringement action seeks money damages, the action is legal in nature, and the patentee is entitled to a jury trial"). (emphasis supplied).

In view of Dairy Queen, Beacon Theaters, Chauffeurs and Wooddell, it is clear that the nature of the remedy sought in the present case is legal. Hence, "considering both parts of the Seventh Amendment inquiry", "the [Plaintiff is] entitled to a jury trial on all issues presented in [this] suit." Chauffeurs, 494 US at 573.

Therefore, it is very clear that the issue of infringement under the doctrine of equivalents, is, like literal infringement, an issue of fact to be submitted to the jury in a jury case, as a matter of right.

V. Conclusion

For the reasons stated above, Plaintiff submits that the three questions posed by the Court be answered as follows: (1) no; (2) no; and (3) infringement under the doctrine of equivalents, is, like literal infringement, an issue of fact to be submitted to the jury in a jury case. Plaintiff further urges the Court to AFFIRM.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that two copies of the foregoing SUPPLEMENTAL BRIEF FOR PLAINTIFF, HILTON DAVIS CHEMICAL CO. have been served by First Class U.S. Mail, postage prepaid, on Defendant's counsel, J. Robert Chambers, WOOD, HERRON & EVANS, 2700 Carew Tower, Cincinnati, Ohio 45202, this 4th day of February, 1994.

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