



School of Law
UNIVERSITY OF GEORGIA

Prepare.
Connect.
Lead.

Journal of Intellectual Property
Law

Volume 11 | Issue 2

Article 3

March 2004

Losing the Forest Among the Trees in the Festo Saga- Rationalizing the Doctrine of Equivalent and Prosecution History Estoppel in View of the Historical Justifications for Patent Protection

Ryan Thomas Grace

Follow this and additional works at: <https://digitalcommons.law.uga.edu/jipl>



Part of the [Constitutional Law Commons](#), and the [Intellectual Property Law Commons](#)

Recommended Citation

Ryan T. Grace, *Losing the Forest Among the Trees in the Festo Saga-Rationalizing the Doctrine of Equivalent and Prosecution History Estoppel in View of the Historical Justifications for Patent Protection*, 11 J. INTELL. PROP. L. 275 (2004).

Available at: <https://digitalcommons.law.uga.edu/jipl/vol11/iss2/3>

This Article is brought to you for free and open access by Digital Commons @ University of Georgia School of Law. It has been accepted for inclusion in Journal of Intellectual Property Law by an authorized editor of Digital Commons @ University of Georgia School of Law. [Please share how you have benefited from this access](#) For more information, please contact tstriepe@uga.edu.

LOSING THE FOREST AMONG THE TREES IN THE *FESTO* SAGA—RATIONALIZING THE DOCTRINE OF EQUIVALENTS AND PROSECUTION HISTORY ESTOPPEL IN VIEW OF THE HISTORICAL JUSTIFICATIONS FOR PATENT PROTECTION

Ryan Thomas Grace*

Two inventors make the *exact same* discovery at the *exact same* time. The two inventors, unknown to each other, draft two separate patent applications and use the *exact same* language to describe and claim their respective inventions. If the two patent applications could become patents, they could be construed as encompassing *completely different* inventions.

“and [Alice] was just in time to see [the Rabbit] pop down a large rabbit-hole under the hedge.”¹

I. INTRODUCTION

The idea of patent protection can be found as early as 720 B.C. in a Greek colony in southern Italy.² These early patents were considered rewards, and they protected luxury items such as recipes for food.³ Hundreds of years later when the idea of patent protection reached England, the Crown used patent awards as a means to entice entrepreneurs to travel outside the country and bring back

* Ryan Thomas Grace holds a B.S.C.E. from University of Nebraska-Lincoln and a J.D. from Creighton University. He is a practicing patent attorney and inventor in the Omaha, Nebraska area. The author wishes to thank Ellen Colyer, Irene Grace, and Ted Grace for their insight and support during the preparation of this Article. The opinions expressed herein are solely those of the author and are not necessarily those of the aforementioned individuals. The author may be contacted via electronic mail at gracesquire2003@yahoo.com.

¹ LEWIS CARROLL, *Alice's Adventures in Wonderland*, in THE COMPLETE WORKS OF LEWIS CARROLL 16 (1994). Lewis Carroll was not only a famous author but also a famous mathematics professor. The writings of Lewis Carroll have been unsurpassed by other authors in explaining the mind-boggling disasters that can occur with the written word and faulty logic. Insofar as the written word is the very essence of patent law, Lewis Carroll's works have been a great inspiration on this field of law.

² See generally GREGORY A. STOBBS, SOFTWARE PATENTS 3-4 (2d ed. 2000); DONALD S. CHISUM ET AL., PRINCIPLES OF PATENT LAW CASES AND MATERIALS 6-7 (2d ed. 2001).

³ CHISUM ET AL., *supra* note 2, at 6-7.

goods.⁴ The entrepreneurs were given patent awards that covered the new goods that they brought back to England.⁵ By the 1500s, the Crown began abusing its power and granting patents to friends and family of the Crown.⁶ This, in turn, drove the price of many goods upward and caused piracy along with a distrust in the system.⁷

Unsurprisingly, the American patent system was largely influenced by the problems with the monopolistic English patent custom and the abusive discretion of the Crown.⁸ In recognition of these problems, the drafters of the Constitution drafted the Patent Clause in a manner that would account for suppressive monopolies and piracy.⁹ The Patent Clause of the United States Constitution provides in whole that Congress shall have the power 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.”¹⁰

Around the time that England was having problems with its patent system and America was drafting the Patent Clause, several justifications arose to explain the benefits for protecting ideas. Under economic theory, patent protection provides an incentive to invent, disclose, commercialize, and design around.¹¹ In light of deontological theory, an inventor has a right to his or her creation regardless of the social consequences to society.¹² Moreover, under utilitarian theory, patent protection attempts to provide the greatest good to society.¹³

In drafting the Patent Act of 1790, the drafters considered these justifications and the piracy problems in England’s system.¹⁴ Keeping these problems in mind, the original Patent Act has evolved through various revisions into the Patent Act

⁴ P.J. Fedrico, *Origin and Early History of Patents*, 11 J. PAT. & TRADEMARK OFF. SOC’Y 292-93 (1929).

⁵ *Id.*

⁶ STOBBS, *supra* note 2, at 3-4.

⁷ *Id.*

⁸ *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 5, 148 U.S.P.Q. (BNA) 459, 462 (1966).

⁹ *Id.* at 5-6.

¹⁰ U.S. CONST. art. I, § 8, cl. 8.

¹¹ CHISUM ET AL., *supra* note 2, at 70 (citations omitted).

¹² Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 296-330 (1988).

¹³ JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION § 7 p. 13 (J.H. Burns & H.L.A. Hart, eds. 1970), available at <http://www.econlib.org/library/Bentham/bnthPML0.html> (last visited Apr. 16, 2004).

¹⁴ See generally MARTIN J. ADELMAN ET AL., CASES AND MATERIALS ON PATENT LAW 9-17 (1998). See also *Graham*, 383 U.S. at 6-7. Even though England is an important source of our current patent culture, the United States Patent laws arise from an abundant, multicultural past that should not be assigned to a single country. Venetian and French systems have also had a large impact on our current system. For purposes of this Article, however, the problems with English patent custom are most significant.

of 1952. Under the current Patent Act, an inventor must file an application so that the public may gain the knowledge of the invention.¹⁵ The application for the invention must contain a set of claims, which delineate in precise terminology the exact boundaries of the invention.

The current Patent Act also constrains inventors in several ways. Inventors are limited to “any useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.”¹⁶ The present Patent Act requires that the invention be novel and that the disclosure of the invention be sufficient to allow a person of ordinary skill to make or use the invention.¹⁷ Also, the current Patent Act does not allow patent protection for obvious variations of prior art. The Patent Act states that a patent for an invention may not be obtained “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

¹⁵ John W. Schlicher, *The Law, History, and Policy of Prosecution History Estoppel in Patent Actions in the U.S. Supreme Court—Implications of Festo (Part I)*, 84 J. PAT. & TRADEMARK OFF. SOC'Y 581, 584 (Aug. 2002). A patent application must contain a written description with one or more claims, drawings if necessary to understand the invention, and an oath or declaration from the inventor. See generally 383 C.F.R. § 1.51 (2002). The Patent and Trademark Office prefers that the patent application contain the following: (1) a title; (2) cross-references to related inventions; (3) a statement regarding federally-sponsored research; (4) a background to the invention; (5) a summary of the invention; (6) a brief description of the drawings; (7) a detailed description of the invention; (8) one or more claims to the invention; (9) an abstract of the disclosure; (10) drawings if necessary; and (11) an oath or declaration. *Id.*

¹⁶ 35 U.S.C. § 101 (2000).

¹⁷ 35 U.S.C. § 102 (2000); 35 U.S.C. § 112 (2000). 35 U.S.C. § 102 provides in pertinent part as follows:

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States. . . .

35 U.S.C. § 102 (2000). 35 U.S.C. § 112 provides in pertinent part as follows:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

35 U.S.C. § 112 (2000).

at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.”¹⁸

These disclosure requirements of the Constitution and the Patent Act have had an effect on Supreme Court decisions regarding words in inventors’ disclosures. The requirements of the Patent Act have evolved to necessitate that inventors point out and distinctly claim the subject matter that they regard as the invention.¹⁹ Through this requirement, inventors use words in an attempt to particularly point out their invention. In some situations, in order to counter the inherent ambiguities of words, the Supreme Court has expanded literalism and allowed protection for the equivalents of a word. This expansion has given inventors a *greater incentive to invest and disclose under the patent system* because their invention is more securely protected. In other situations, where inventors attempt to resurrect conceded subject matter, the courts have correctly held the inventor to the literal meaning of their words. In that situation, a strict adherence to the meaning of a word supports the notice function of the patent system and promotes competition by allowing competitors to design around patents. In both of these situations, the courts are attempting to uphold the intent of the Constitution. In the *Festo* saga²⁰ that has haunted the patent community for well over ten years, however, the United States Supreme Court and the Federal Circuit have enlarged the expansive arms of prosecution history estoppel. In doing so, the breath of the doctrine of equivalents has been reduced, thereby causing a reduction in the incentives to invent and disclose under the patent system. The result of this epic battle between the two doctrines flies in the face of the historical justifications of our patent system.

First, this Article addresses the historical justifications for patent protection.²¹ In doing so, this Article examines economic,²² deontological,²³ and utilitarian²⁴

¹⁸ 35 U.S.C. § 103(a) (2000). Despite the meager wording of this rule, the nonobviousness requirement of an invention is the patent attorney’s playground because it is so subjective. The rule first requires a patent attorney to determine a fictional person of ordinary skill in the art. Then the attorney must go back to the time at which the invention was made. Next, the attorney must look at all of the prior art available at that time and determine if the fictional person of ordinary skill would have found it obvious to modify the prior art to make the invention.

¹⁹ 35 U.S.C. § 112 (2000).

²⁰ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 56 U.S.P.Q.2d (BNA) 1865 (Fed. Cir. 2000) [hereinafter *Festo I*]; *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 62 U.S.P.Q.2d (BNA) 1705 (2002) [hereinafter *Festo II*]; *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 68 U.S.P.Q.2d (BNA) 1321 (Fed. Cir. 2003) [hereinafter *Festo III*].

²¹ See *infra* notes 31-96 and accompanying text.

²² See *infra* notes 38-57 and accompanying text.

²³ See *infra* notes 58-80 and accompanying text.

²⁴ See *infra* notes 81-96 and accompanying text.

justifications for patent protection. Next, this Article discusses the historical background underlying the justifications of the United States patent system.²⁵ In this regard, this Article sets forth the historical evolution of and problems with England's patent custom.²⁶ This Article continues by considering how England's patent policy was instrumental in the development of America's patent system.²⁷ This Article then addresses the evolution of the doctrine of equivalents and the doctrine of prosecution history estoppel²⁸—specifically, how the result of the *Festo* saga has increased the expansive arms of prosecution history estoppel and reduced the scope of the doctrine of equivalents. Finally, this Article criticizes the policy that has evolved from the *Festo* cases by examining the application of the doctrine of equivalents and the doctrine of prosecution history estoppel in view of the historical underpinnings and justifications for patent protection.²⁹ Specifically, this Article analyzes the historical, economic, and philosophical justifications for patent protection in order to show that the doctrine of equivalents should not be confined by the arms of prosecution history estoppel.³⁰

II. THE HISTORICAL JUSTIFICATIONS FOR PATENT PROTECTION

The notion of protecting ideas spans hundreds of years and crosses nearly all westernized cultures.³¹ From this vast notion, several justifications for patent protection have emerged. Two of the more traditional categories for justifying patent protection include economic justifications and philosophical justifications.³² The economic justifications are the more recent of the two theories. This rationale takes into account the fact that most of the economic growth in the United States can be explained by investments in research,

²⁵ See *infra* notes 97-193 and accompanying text.

²⁶ See *infra* notes 98-135 and accompanying text.

²⁷ See *infra* notes 136-93 and accompanying text.

²⁸ See *infra* notes 194-386 and accompanying text.

²⁹ See *infra* notes 386-410 and accompanying text.

³⁰ See *infra* notes 386-410 and accompanying text.

³¹ See generally STOBBS, *supra* note 2, at 3-4.; CHISUM ET AL., *supra* note 2, at 6-7. One of the earliest expressions of a patent system can be found in Sybaris, a Greek colony in southern Italy that existed from 720 to 510 B.C. CHISUM ET AL., *supra* note 2, at 6-7. The Sybarites were known for a carefree life of luxury. *Id.* Accordingly, they enacted protection for many types of culinary delights. *Id.* A few centuries after the destruction of Sybaris, Aristotle addressed Hippodamus of Miletus, a noted builder and contemporary of Pericles, who proposed that a law be enacted to give rewards to all who contribute to the good of the state. *Id.* Although prize rewards for aesthetic advances were common in classical Greece, Aristotle reacted negatively to Hippodamus' assertion and argued that such a law would lead to alterations in the constitution. *Id.*

³² CHISUM ET AL., *supra* note 2, at 5.

development, and education rather than increases in capital and labor.³³ Under this theory, patents are thought to maximize the economic benefit to the inventor and to society.³⁴

Notwithstanding the economic views of the patent system, the more traditional views for patent protection stem from two philosophical justifications. The first justification, known as deontological justification, suggests that one has a natural or moral right to one's creations regardless of the social consequences to society as a whole.³⁵ The second justification, known as utilitarianism, posits that a property right in one's ideas is necessary for the greatest benefit to society as a whole.³⁶ All three of these theories were instrumental throughout the evolution of the current American patent system.³⁷

A. ECONOMIC JUSTIFICATIONS

The most prominent and recent views on the justifications for patent protection are derived from the capitalistic views of most westernized economies.³⁸ For example, the capitalistic structure of America is one of the most important concepts responsible for setting the United States apart from the rest of the world. This is evidenced by the large sums of money connected to intellectual property.³⁹ Billion-dollar licenses, million-dollar infringement verdicts, and unprecedented sales figures are all attributed to patent protection.⁴⁰

Simply stated, patent protection attempts to promote growth in the economy as a whole so as to provide ultimately for society as a whole. In general, patent protection attempts to increase the knowledge of society to help society evolve and advance as times change. Patent protection also attempts to increase individual wealth by giving an incentive for individuals to increase the pool of knowledge and push society forward.

³³ See generally Robert M. Solow, *Technical Change and Aggregate Production Function*, 39 REV. ECON. & STAT. 312, 320 (1957).

³⁴ CHISUM ET AL., *supra* note 2, at 59.

³⁵ *Id.* at 5.

³⁶ *Id.*

³⁷ See generally Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), reprinted in JEFFERSON WRITINGS 1291-92 (M. Peterson ed. 1984) [hereinafter Jefferson Letter]. Thomas Jefferson discussed the theories of natural rights and utilitarianism in his letter. He concluded that the economic and utilitarian ideas surrounding the Patent Clause were far more significant than the natural rights theory.

³⁸ CHISUM ET AL., *supra* note 2, at 59 (citations omitted).

³⁹ *Id.*

⁴⁰ *Id.*

The information related to the goals of patent protection is enormous, spanning hundreds of years and crossing nearly every known culture.⁴¹ Four of the more recognized economic theories justifying protection, however, are that a uniform patent system will lead to (1) an incentive to invent; (2) an incentive to disclose; (3) an incentive to commercialize; and (4) an incentive to design around.⁴²

First, patent protection gives an inventor an incentive to invent.⁴³ In general, especially in American society, inventors expect a reward or an economic incentive for disclosing their ideas. As opposed to socialism, which focuses on the good of the many with government intervention, capitalism focuses more on the good of the individual in hopes of bringing about the good of the many. Accordingly, patent protection in a capitalistic market focuses on incentives to the individual in hopes that a result of the incentives to individuals brings about a good for society as a whole.⁴⁴

Patent protection gives an incentive to invent because it allows for a limited monopoly for the inventor's discoveries.⁴⁵ If this monopoly or security was not given to inventors, competitors who have not shared in the costs of the invention could pirate inventions.⁴⁶ If discoveries were appropriated, the costs of the goods derived from these inventions would be driven downward.⁴⁷ Initially, lower prices would seem to benefit society as a whole; however, by tipping the scale toward the consumer, the capitalistic balance is disturbed and benefits to society as well as to inventors would be lost. In particular, the lower prices would cause inventors to receive less return on the research and development of their discoveries.⁴⁸ As a result, inventors might not be able to gain sufficient social value for their discoveries to offset the costs of making them.⁴⁹ The high risk of capitalistic expenditure would cause underinvestment in new technologies (e.g., Russia). Accordingly, investment in new technologies, which provide huge social benefits to the general public, might never occur. Patent protection serves not

⁴¹ See generally ADELMAN ET AL., *supra* note 14, at 9-17.

⁴² See generally Giles S. Rich, *The Relation Between Patent Practices and the Anti-Monopoly Laws*, 24 J. PAT. & TRADEMARK OFF. SOC'Y 85-106 (Feb. 1942).

⁴³ See generally Rebecca Eisenberg, *Patents and the Progress of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017, 1024-28 n.43 (1989).

⁴⁴ See generally Bentham, *supra* note 13, at ch. 1 § 3.

⁴⁵ ADELMAN ET AL., *supra* note 14, at 34 (citations omitted).

⁴⁶ *Id.* (citations omitted). See *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950) (stating that copying would deprive the inventor of the benefit of the invention, which would then foster concealment rather than disclosure of invention and negate one of the primary purposes of the patent system).

⁴⁷ ADELMAN ET AL., *supra* note 14, at 34.

⁴⁸ *Id.*

⁴⁹ *Id.* at 34-35.

only the individual but also society by keeping the returns on inventions above the free market level, thereby ensuring that individual inventors have an incentive to invent and improve society with their discoveries.

Patent protection also gives inventors an incentive to disclose their inventions to the public.⁵⁰ This theory has historically been popular in courts throughout the world as a means of counterbalancing the grant of a monopoly to inventors.⁵¹ The disclosure of a discovery is what inventors give to the public in exchange for a limited monopoly on their inventions. Without monopoly protection, inventors would likely keep their discoveries secret in order to reduce copying.⁵² This secrecy would also lead to the duplication of work.⁵³ Inventors would be unaware of the respective inventions of others; therefore, inventions would need to be reinvented. A lack of disclosure would also be detrimental to society because resources would be used to reinvent inventions. That reinvention would amount to a waste of individual and public money as well as a waste of creative knowledge. As a result, the growth of society as a whole would be stifled.

Along with the incentive to invent and the incentive to disclose, an incentive to commercialize also exists when patent protection is given for discoveries.⁵⁴ The incentive to commercialize theory deals with the capitalistic market as a whole. The theory stems from the fact that other people are usually involved in injecting discoveries into the market. Discoveries are made everyday, but investment and money are needed to turn these discoveries into products that reach consumers.⁵⁵ Without investment, an individual's discovery will merely remain an idea secured by a patent, and an inventor's ideas will not gain popularity with the public. Thus, the general public will never gain the benefit of the invention. Since patents are freely assignable, inventors may assign their ideas to individuals who have the commercial power to materialize the inventors ideas. This, in turn, benefits both inventors and the public by giving the commercialization ability to the inventor and by putting the product in the public's hands.

Another, albeit less appetizing, incentive for patent protection is the incentive to design around the prior art.⁵⁶ At first blush, this incentive might seem unjust,

⁵⁰ See generally Eisenberg, *supra* note 43, at 1028-29.

⁵¹ ADELMAN ET AL., *supra* note 14, at 37 (citations omitted).

⁵² *Id.*

⁵³ CHISUM ET AL., *supra* note 2, at 72.

⁵⁴ See generally Rich, *supra* note 42, at 179.

⁵⁵ See CHISUM ET AL., *supra* note 2, at 73 (stating that a patent system allows capitalists, advertisers, sellers, and developers to make the appropriate investments to ensure that consumers eventually receive the benefit of the inventor's commercial embodiment).

⁵⁶ *Id.* at 75.

wasteful, or redundant of prior invention.⁵⁷ Giving an inventor an incentive to design around the prior art, however, is not only beneficial to the inventor but also to the public. The incentive reinforces the incentive to disclose by forcing inventors to claim all that they can in their patents. This incentive also benefits the public by allowing competitors to find improvements on old inventions. No matter how small these improvements, the results can have extreme effects on the economy and on the lifestyle of the public. The incentive to design around also infuses capital into the economy in research and development, which ultimately results in improved products reaching consumers. This incentive has a fine line, however, because the less security given to an inventor (e.g., greater incentive to design around), the less inventors will disclose discoveries through the patent system. Instead, inventors will choose to keep ideas secret. This secrecy will ultimately reduce the incentive to design around because no base discoveries to design around will exist.

B. DEONTOLOGICAL JUSTIFICATIONS

Notwithstanding current economic justifications for patent protection, one of the more traditional views on patent protection relates to deontological theory.⁵⁸ This theory has its roots in well over 350 years of history.⁵⁹ John Locke developed a natural rights theory of property in 1690 in his *Two Treatises of Government*.⁶⁰ Then, as patent protection became more prevalent throughout the world, Locke's views on property rights were utilized to explain patent protection.⁶¹

According to Locke, an individual's right to property begins with the notion that God gave the world to men in common.⁶² This statement seems counterintuitive in that an *individual's rights to property* stems from God giving all property to men *in common*. Locke connected the gap between these two propositions by theorizing that every individual has a property interest in his or her own body, as well as the work the body produces.⁶³ By mixing the labor of an individual's body with the property in common conferred by God, an

⁵⁷ *Id.*

⁵⁸ *Id.* at 5.

⁵⁹ John Locke, *Second Treatise on Civil Government*, in TWO TREATISES OF GOVERNMENT (Prometheus Books 1986).

⁶⁰ Locke, *supra* note 59, at ch. 5, § 25.

⁶¹ See generally Hughes, *supra* note 12, at 296-97; Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L.J. 1533, 1540 (1993); Lawrence C. Becker, *Deserving to Own Intellectual Property*, 68 CHI.-KENT L. REV. 609, 609 (1993).

⁶² Locke, *supra* note 59, § 25.

⁶³ *Id.* § 27.

individual may exclude the common right of other individuals.⁶⁴ Locke based this theory on the presumption that God did not give the earth to individuals to remain uncultivated and in common to all men.⁶⁵ God gave labor as a means to convert common property into personal property.

Locke also imposed two conditions on the maintenance of personal property. Locke stated that individuals may only retain personal property if enough property is left in common for others.⁶⁶ Locke also contended that individuals may only hold personal property that will be utilized. Anything beyond this amount belongs to the common.⁶⁷ Even though Locke did not directly address intellectual property in his treatises, Locke's principles have historically been utilized to justify patent protection on discoveries.⁶⁸

Patent protection is justified under Lockean theory in light of three propositions. The first proposition is that ideas require a person's labor.⁶⁹ The second proposition is that ideas originated in the common, which is not significantly devalued by their removal from the common.⁷⁰ Third is the proposition that the conversion of ideas into personal property does not breach the non-waste provision.⁷¹

With regard to labor, it is intuitive that people work to produce ideas. The value of these ideas depends solely upon an individual's mental work inasmuch as no physical component exists to thinking.⁷² One theory of labor takes into account Locke's view that labor is pain.⁷³ This theory concludes that the unpleasantness of labor should be rewarded with property because people must be motivated to perform labor.⁷⁴ Another labor theory concludes that people should be rewarded for how much value they add to other people's lives regardless of whether they are motivated by that type of reward.⁷⁵

These two perceptions of labor are evidenced when an engineer designs a coupling for a bridge, when Thomas Edison invented the light bulb, or when Marie Curie discovered radiation. As the industrial and e-commerce revolutions

⁶⁴ *Id.*

⁶⁵ *Id.* § 28.

⁶⁶ *Id.* § 31.

⁶⁷ Locke, *supra* note 59, § 31.

⁶⁸ See, e.g., Hughes, *supra* note 12, at 296-97; Gordon, *supra* note 61, at 1540; Becker, *supra* note 61, at 609.

⁶⁹ Hughes, *supra* note 12, at 300.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.* at 302. Under this theory, labor is thought of as an activity that individuals do not enjoy but engage in because they must. *Id.*

⁷⁴ Hughes, *supra* note 12, at 303.

⁷⁵ *Id.* at 305.

have taken afoot, these ideas of labor have become more prevalent. In many situations, large amounts of time, energy, and money are necessary to bring an invention to light. In this regard, ideas and inventions are brought about through labor.

Even though it may seem counterintuitive, ideas originate in the common that God gave to men.⁷⁶ That proposition seems counterintuitive because the very nature of a novel idea is that others have not previously considered the novel idea. Hence, one might believe that if an idea is in the common, then by definition, it is not novel or new. Contrary to this rationale, the field of ideas bears a great similarity to Locke's idea of a common.⁷⁷ Locke's idea of a common includes the principle that the common has sufficient quantity and quality so that one person's extraction from the common does not prevent the next person from extracting the same quantity and quality from the common. Locke did not state that the common needed to be infinite.⁷⁸ He merely implied that the common should be practically inexhaustible.

In light of this theory, personal rights to ideas and inventions easily meet the inexhaustible requirement of the common.⁷⁹ An idea can be used by an unlimited number of persons, and one person's use of an idea cannot deplete the common in any sense because an idea is not quantitative. In this regard, the common field of ideas is an expansive medium. Moreover, in view of Locke's non-waste provision, it is inherent that one cannot waste an idea where the common field of ideas is an expansive medium.⁸⁰ Accordingly, Lockean or deontological theory justifies protection of novel ideas.

C. UTILITARIAN JUSTIFICATIONS

Historically, deontological justifications for patent protection have been a hard sell for many legal scholars.⁸¹ Indeed, the predominant justification for patent protection has found its roots in utilitarianism.⁸² Thomas Jefferson evidenced this view in his 1813 letter to Isaac McPherson.⁸³ Jefferson stated that England's

⁷⁶ *See id.* at 315.

⁷⁷ *Id.*

⁷⁸ *Id.* Locke believed that the field of ideas expanded with use.

⁷⁹ Hughes, *supra* note 12, at 315.

⁸⁰ *Id.*

⁸¹ *See* Jefferson Letter, *supra* note 37, at 1291; CHISUM ET AL., *supra* note 2, at 54 (stating that the predominant justification for American intellectual property law has been, without question, utilitarianism or consequentialism).

⁸² Jefferson Letter, *supra* note 37, at 1292.

⁸³ *Id.* at 1286-94.

deontological views on patent protection were a matter of pretend.⁸⁴ He explained that nature made the idea itself the most exclusive type of property because as long as the individual does not divulge the idea, it is not known.⁸⁵ Once the idea is released, however, the receiver of the idea cannot remove the idea from the mind.⁸⁶ In that regard, anyone who receives an idea receives the whole of the idea.

In light of this view on ideas, Jefferson argued that ideas should “freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition. . . .”⁸⁷ In conclusion, Jefferson argued:

Inventions then cannot, in nature, be a subject of property. Society may give an exclusive right to the profits arising from them, as an encouragement to men to pursue ideas which may produce utility, but this may or may not be done, according to the will and convenience of society, without claim or complaint from any body. Accordingly, it is a fact, as far as I am informed, that England was, until we copied her, the only country on earth which ever, by a general law, gave a legal right to the exclusive use of an idea. . . . Considering the exclusive right to invention as given not of natural right, but for the benefit of society, I know well the difficulty of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.⁸⁸

Jeremy Bentham, an English philosopher, propounded many of the same utilitarian theories which Jefferson so vigorously supported. Bentham condoned deontological theory, stating that the theory “is simple nonsense: natural and imprescriptible rights, rhetorical nonsense—nonsense upon stilts.”⁸⁹ As opposed to natural rights, Bentham believed that the state should adopt policies that would maximize the happiness of its community’s members.⁹⁰ Under this view, the

⁸⁴ *Id.* at 1291.

⁸⁵ *Id.*

⁸⁶ *Id.* Jefferson believed that the whole of the idea was always received; the idea did not diminish in value as it was passed along.

⁸⁷ *Id.*

⁸⁸ Jefferson Letter, *supra* note 37, at 1291-92.

⁸⁹ JEREMY BENTHAM, ANARCHICAL FALLACIES, WORKS II 501 (Edinburgh: William Tait, 1843); *see also* CHISUM ET AL., *supra* note 2, at 53 (incorrectly citing this quotation as coming from JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION (J.H. Burns and H.L.A. Hart, eds.)).

⁹⁰ *Id.* ch. 1, § 3, at 12.

measure of a government simply dealt with its ability to maximize the happiness of the community.⁹¹

With regard to this theory of maximizing happiness, utilitarianism as a means for justifying patent protection is evident. Utilitarian justification is a matter of positive law enacted by society to benefit society. If patent protection (a right to exclude) did not exist, incentives for inventors to push their ideas into society would not be adequate. For example, if patent protection did not exist, competitors could simply copy inventions.⁹² Inventors would have no incentive to spend the vast amounts of money, time, and energy to develop their products.⁹³ This, in turn, would stifle invention because it would be beneficial to wait for others to spend the energy inventing and then merely copy their work. No one would engage in new development or original thought.⁹⁴ To avoid this disaster to society, patent protection is imperative.⁹⁵ Accordingly, under utilitarian theory, granting property rights in inventive contributions maximizes the happiness of community members.

The various justifications for patent protection may seem diametrically opposed. Stated another way, one might believe that one justification is more important or persuasive than another. Irrespective of the argument that can be made for or against these justifications, however, a single premise underlies each of them: promoting innovation.⁹⁶ For example, under economic justifications, inventors are given a capitalistic incentive to come up with new ideas. Under deontological theory, innovation is promoted because inventors have the incentive of a natural right to a discovery. In other words, inventors can exclude others from their property. Utilitarianism promotes innovation because it acknowledges that if society is to benefit from a discovery, inventors must have protection from appropriation in order to instigate disclosure.

⁹¹ *Id.* § 7, at 13.

⁹² Hettinger, *supra* note 61, at 48; see also Jeremy Waldron, *From Authors to Copiers: Individual Rights and Social Values in Intellectual Property*, 68 CHI.-KENT L. REV. 842, 854 (1993).

⁹³ Hettinger, *supra* note 61, at 48.

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ One might even argue that promoting innovation is one of the very bases for human existence. Many religions promote mimicking one's life after God. French philosopher Rene Descartes, father of modern Western philosophy, believed that in order to justify our existence, God must exist and be all knowing and all good. RENE DESCARTES, *SELECTED PHILOSOPHICAL WRITINGS* 77-79 (John Cottingham et al. trans., Cambridge University Press 1999). Accordingly, one way to become closer to God is to become more knowledgeable. Patent systems promoting innovation and disclosure increase the pool of knowledge. A patent system that increases the pool of knowledge, therefore, makes society as a whole closer to God, which is one of the fundamental axioms of many religions.

These justifications fail as inventors are pushed through political, public policy, or economic reasons to keep inventions secret. Accordingly, in order to promote economic growth, to increase the pool of knowledge, and to provide the greatest benefit to society, the law ought to reflect these justifications by providing the greatest protection to inventors in order to alleviate fears of piracy as a result of disclosure.

III. THE HISTORICAL BACKGROUND UNDERLYING THE JUSTIFICATIONS FOR THE AMERICAN PATENT SYSTEM

*The rational study of law is still to a large extent the study of history. History must be a part of the study, because without it we cannot know the precise scope of rules which it is our business to know. It is a part of the rational study, because it is the first step toward an enlightened skepticism, that is, toward a deliberate reconsideration of the worth of those rules.*⁹⁷

A. THE SEED OF THE UNITED STATES PATENT SYSTEM

The justifications for patent protection have influenced the development of the current patent system of the United States. Throughout the development of the U.S. patent system, the justifications have been given deference in order to help fine-tune the system. Like most other laws and policies in the United States, the U.S. patent system was influenced by English patent custom.⁹⁸ This influence came in two flavors. First, several aspects of the English system were desired because they were well justified economically and philosophically. Second, English patent custom gave the drafters of the Constitution a flavor of what they did not want, namely suppressive monopolies and piracy.⁹⁹

During the tenth century, industrial standards and commerce in general were struggling in England.¹⁰⁰ This struggle was partially due to England's isolation and the dangerous modes of importing and exporting goods.¹⁰¹ In order to stimulate the economy, the Crown established a reward system to encourage entrepreneurs to travel outside the country and to bring back goods and knowledge that was

⁹⁷ Oliver Wendell Holmes Jr., *The Path of the Law*, 10 HARV. L. REV. 457, 469 (1897).

⁹⁸ CHISUM ET AL., *supra* note 2, at 15.

⁹⁹ *See generally* Graham v. John Deere of Kansas City, 383 U.S. 1, 6-7, 148 U.S.P.Q. (BNA) 459, 463 (1966).

¹⁰⁰ Fedrico, *supra* note 4, at 292-93.

¹⁰¹ STOBBS, *supra* note 2, at 3-4. At this time in England, nautical voyages were costly and dangerous. Many people risked their lives on under-funded voyages where travel conditions were less than optimal.

foreign to England.¹⁰² In consideration for three voyages abroad, the Crown agreed to grant the entrepreneur the title of “thane.”¹⁰³ That title was the rank directly above an ordinary freeman.¹⁰⁴ Notwithstanding the dangers of these voyages, this reward system caused an influx of goods and knowledge from individuals concerned with upping their social status.¹⁰⁵

Stemming from this reward system, trading became big business in England.¹⁰⁶ By the 1300s, powerful trade guilds, which fed on the profits of their trade, gained political clout in many towns and villages.¹⁰⁷ As these guilds worked their way into town governments, they retained the exclusive right to trade within the town, and as entrepreneurs became more powerful and sophisticated, the mere title of thane was no longer an incentive to undertake dangerous voyages. Accordingly, in 1326, the Crown established a new policy to encourage the development of new arts in England.¹⁰⁸ The Crown offered monopolies to the first individuals or trade guilds willing to take the risk of importing new products.¹⁰⁹ The new monopoly policy made common the term “letters patent.”¹¹⁰ At that time in England, the Crown granted proclamations or “open letters” for monopolies, which also were known as “letters patent.” Hence, the mainstreaming of the term “patent.”

For nearly one hundred years, the Crown granted monopolies (letters patents) on both products and inventions used abroad.¹¹¹ These patents were merely pirated, however, from inventors in other countries.¹¹² For example, one of the first monopolies for an invention (as opposed to a mere product) was granted to

¹⁰² Fedrico, *supra* note 4, at 292-93.

¹⁰³ STOBBS, *supra* note 2, at 3-4.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ Fedrico, *supra* note 4, at 292-93. The merchant and craft guilds were originally social and religious clubs. By stocking up on monopolies, however, they eventually controlled nearly every trade and branch of business.

¹⁰⁷ *Id.*

¹⁰⁸ STOBBS, *supra* note 2, at 4. See also Fedrico, *supra* note 4, at 292-93.

¹⁰⁹ Fedrico, *supra* note 4, at 292-93. This practice gave rise to the very lucrative cloth industry of England. This was the first industry in England developed through this policy.

¹¹⁰ STOBBS, *supra* note 2, at 4. In its earliest context, the term patent was a form of monopoly. The word monopoly has its birth from the Greek word *monos* (*monos*) and *πωλειν* (*polein*) meaning “alone” and “to sell.” The term patent has its roots in the Latin term *litterae patentes*. CHISUM ET AL., *supra* note 2, at 2.

¹¹¹ STOBBS, *supra* note 2, at 5. Interestingly, at this time, patents were not given for inventions. Essentially, the Crown was granting patents for pirating inventions from other countries. The first patent for an actual invention on something developed in England was not granted until 1565. It took the Crown six years to approve this patent, and it was granted to an Italian who happened to live in England. *Id.*

¹¹² *Id.*

John of Shiedame on a method of manufacturing salt.¹¹³ John of Shiedame did not invent the method; he merely brought the knowledge of the method back to England.¹¹⁴ The ramifications of granting a monopoly on this simple method were devastating and brought the dark side of England's patent system into focus.

Salt was a basic necessity to English life. After the monopoly was granted to John of Shiedame, he had the power to price salt at any amount, which he did, and salt prices in England increased nearly tenfold.¹¹⁵ To rub salt into the wound, Queen Elizabeth was known for giving very lucrative monopolies to her friends.¹¹⁶ The best example of her behavior is evidenced by her fondness of Sir Walter Raleigh. As history suggests, one can only image the reason why the fifty-year-old Queen was so fond of the tall, handsome, freethinking, twenty-year-old Raleigh.¹¹⁷ Within two years of their meeting, the Queen granted Raleigh a lucrative monopoly on the export of woolen broadcloths (worth £3,500 per year plus £1 per year licensing fee from every tavern).¹¹⁸

In light of the stifling effect the Queen's behavior had on the economy, the House of Commons began to contest openly the Queen's grant of monopolies.¹¹⁹ Between 1571 and 1601, the Queen and the House of Commons fought back and forth over the Queen's habit of granting monopolies to her friends.¹²⁰ Eventually, the Queen backed down, and she apologized before the House of Commons.¹²¹ The Queen then reformed her habits and revoked the most offensive monopolies.¹²² More importantly, she allowed the common-law courts to try the

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 6. The price of salt rose from sixteen pence a bushel to fourteen or fifteen shillings (there are twelve pence in a shilling). *Id.*

¹¹⁶ STOBBS, *supra* note 2, at 5.

¹¹⁷ See generally ANNE SOMERSET, ELIZABETH I 336 (1991). How Sir Walter Raleigh captured the Queen's attention is not exactly clear, but there are many assumptions. According to legend, Walter Raleigh threw down his expensive cloak to cover a mud puddle so that the Queen would not have to step in the puddle. Other theories indicate that Raleigh's mother was a relative of Elizabeth I's former governess. Regardless of how they met, the Queen indicated that Raleigh's company was quite stimulating.

¹¹⁸ STOBBS, *supra* note 2, at 7. Apparently, wine taverns used the broadcloths. CHISUM ET AL., *supra* note 2, at 13 n.49.

¹¹⁹ FLOYD L. VAUGHAN, THE UNITED STATES PATENT SYSTEM: LEGAL AND ECONOMIC CONFLICTS IN AMERICAN PATENT HISTORY 14-15 (1972).

¹²⁰ *Id.*

¹²¹ STOBBS, *supra* note 2, at 8. The Queen stated "that my grants should be grievous to my people, and oppressions to be privileged under colour of our patents, our kingly dignity shall not suffer it, yea, when I heard it, I could give no rest to my thoughts till I had reformed it." *Id.*

¹²² VAUGHAN, *supra* note 119, at 14-15.

remaining monopolies to test whether they were valid or void.¹²³ Hence, patent litigation was born.¹²⁴

The lesson that Queen Elizabeth learned about monopolies was not passed along to her successor, King James I. When King James I took the throne in 1603, he merely gave lip service to the inherent problems with monopolies.¹²⁵ The King stated that all monopolies would be surrendered pending an investigation as to their validity.¹²⁶ The King then formed a board to review the monopolies,¹²⁷ but the board was comprised of individuals who owned the most lucrative and controversial monopolies in England.¹²⁸ Needless to say, few of the monopolies were invalidated, and the King continued to issue numerous illegal patents to friends.¹²⁹

The King's behavior instigated a public outcry sparked by the widespread piracy of the suppressing monopolies.¹³⁰ The members of the board were labeled as crooks, and by 1624, both houses of Parliament passed the Statute of Monopolies.¹³¹ This statute became England's first patent statute. The Statute of Monopolies swept away almost all of the most suppressive monopolies in England,¹³² but certain exceptions were made. Patents could be granted for *new*

¹²³ *Id.*

¹²⁴ STOBBS, *supra* note 2, at 8.

¹²⁵ *Id.* at 10.

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.* One of the individuals on the Board was Sir Francis Bacon. Sir Francis Bacon's story is similar to that of Sir Walter Raleigh's. During Queen Elizabeth I's reign, Bacon received several lucrative patents. When King James I took over the throne, the King appointed Bacon to review the validity of the monopolies in England. Interestingly, Bacon had several of the most controversial and lucrative monopolies. Accordingly, if Bacon eliminated the validity of any patents, then his patents would also need to be eliminated. During this time, the number of monopolies actually increased. See *generally id.* at 10.

¹²⁹ STOBBS, *supra* note 2, at 11.

¹³⁰ *Id.*

¹³¹ *Id.* Section 6 of the Statute of Monopolies reads:

[B]e it declared and enacted that any declaration before mentioned shall not extend to any letters patent and grants of privilege for the term of fourteen years under, hereafter to be made, of the sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufacture, which others at the time of making such letters patent shall not use, so as also they be not contrary to law, nor mischievous to the State, by raising prices of commodities at home, or hurt of trade, or generally inconvenient; the said fourteen years to be accounted from the date of the first letters patents, or grant of such privilege hereafter to be made. . . .

Sir William Jarrett, *English Patent System*, 26 J. PAT. & TRADEMARK OFF. SOC'Y 761, 761 (1944).

¹³² STOBBS, *supra* note 2, at 11.

inventions for a limited number of years.¹³³ More importantly, the patent could only be issued to the *true and original inventor*.¹³⁴ Notwithstanding these advances in patents, the inventor still had to petition the Crown, and the issue of a patent was entirely in the King's grace.¹³⁵

B. THE STEMMING OF THE UNITED STATES PATENT CLAUSE

Unsurprisingly, the American patent system was influenced by piracy, the problems with the monopolistic English patent custom, and the independence brought on by the American Revolution.¹³⁶ Prior to the ratification of the Constitution, a federal patent system did not exist.¹³⁷ Under the Articles of Confederation, each state retained every power, jurisdiction, and right that was not expressly delegated to the federal government.¹³⁸ Accordingly, the states retained the power to issue patents. In fact, in 1777, when the Articles of Confederation were drafted, the framers made no attempt to transfer this power to the federal government.¹³⁹ During this period, state power was sufficient because most development was predominantly agrarian and limited.¹⁴⁰

Nearly ten years later, in 1787, state patent granting reached its peak.¹⁴¹ In view of the increased industrialization of the states, the differences between the individual states' patent systems became a glaring problem in a country stifled by the burdens associated with managing its newfound freedom. The multiple applications of competing inventors and the piracy of inventions between states strongly indicated the need for a centralized parent system.¹⁴² This problem instigated notions that a uniform federal patent system should be provided for in

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.* at 12.

¹³⁶ CHISUM ET AL., *supra* note 2, at 15 (stating that English patent custom and the American Revolution influenced American patent practice); *Graham v. John Deere of Kansas City*, 383 U.S. 1, 5-6, 148 U.S.P.Q. (BNA) 459, 463 (1966) (stating that the American patent system was written against the backdrop of the monopolies and piracy behavior in England).

¹³⁷ VAUGHAN, *supra* note 119, at 16-19.

¹³⁸ CHISUM ET AL., *supra* note 2, at 16 n.62.

¹³⁹ *Id.*

¹⁴⁰ *Id.* at 15.

¹⁴¹ VAUGHAN, *supra* note 119, at 16-19. Before the Constitution, the state of South Carolina enacted what appears to be a general patent act for all of the states. *Id.* The clause read: "The Inventors of useful machines shall have a like exclusive privilege of making or vending their machines for the like term of 14 years, under the same privileges and restrictions hereby granted to, and imposed on, authors of books." CHISUM ET AL., *supra* note 2, at 15-16 n.60.

¹⁴² VAUGHAN, *supra* note 119, at 18.

the Constitution.¹⁴³ From this sentiment, a small but significant class of promoters and manufacturers emerged and voiced their opinions that the economic stakes were considerably greater than in colonial times.¹⁴⁴ The promoters' opinions then influenced the state legislators during the drafting of the Constitution.¹⁴⁵

Initially, the first drafts of the Constitution focused not on specific national powers but instead, on the structure of the national government.¹⁴⁶ In that regard, the delegates to the Convention first met in Philadelphia on May 15, 1787, and a draft of the Constitution lacking a Patent Clause was submitted on August 6, 1787.¹⁴⁷ Given that the framers of the Constitution mainly focused on the structure of the national government, discussion of the specific powers of the national government, including Congress' power to grant patents, did not ensue until late in the Convention.¹⁴⁸

Twelve days after the draft of the Constitution was submitted, Charles Pinckney, followed by James Madison, submitted America's first general patent provisions.¹⁴⁹ Charles Pinckney, a congressman from South Carolina, proposed that the federal government should have the power to grant patents for useful inventions, the power to secure to authors exclusive rights for a certain time, and the power to establish public institutions, rewards, and immunities for the promotion of agriculture, commerce, trades, and manufactures.¹⁵⁰ On that same day, James Madison submitted that Congress should have the power to secure to literary authors their copyrights for a limited time and the power to encourage, by premiums and provisions, the advancement of useful knowledge and discoveries.¹⁵¹

The Committee on Detail adopted the current language in the Constitution on September 5, 1787, with unanimous support of the language.¹⁵² The resulting patent provision provides, in whole, that Congress shall have the power to "promote the Progress of Science and useful Arts, by securing for limited Times

¹⁴³ *Id.* at 16 (citations omitted).

¹⁴⁴ See generally CHISUM ET AL., *supra* note 2, at 15-16.

¹⁴⁵ *Id.*

¹⁴⁶ ADELMAN ET AL., *supra* note 14, at 17 (citations omitted).

¹⁴⁷ CHISUM ET AL., *supra* note 2, at 16 n.63.

¹⁴⁸ ADELMAN ET AL., *supra* note 14, at 17.

¹⁴⁹ CHISUM ET AL., *supra* note 2, at 16 n.63.

¹⁵⁰ ADELMAN ET AL., *supra* note 14, at 17.

¹⁵¹ *Id.*

¹⁵² *Id.* Thomas Jefferson initially questioned the language of the Patent Clause because he doubted that the benefits of even limited monopolies could outweigh the benefits of their complete abolishment. *Id.* at 17 n.66. Jefferson changed his stance, however, shortly after the 1790 Act was passed. He stated that Congress' act of issuing patents on discoveries started a reaction of inventions beyond his own conception. *Id.* at 18 n.67.

to Authors and Inventors exclusive Right to their respective Writings and Discoveries.”¹⁵³ Well after the Constitution was ratified, both houses of Congress construed the construction of the Constitution as being two separate provisions merged into one.¹⁵⁴ The first provision stimulates the progress of science by giving authors exclusive rights to their writings.¹⁵⁵ The second provision of the clause gives Congress the authority to stimulate the progress of useful arts by giving inventors the exclusive rights to their discoveries.¹⁵⁶ In part because of the Convention’s negative view on national participation in economic affairs (e.g., the Crown’s “participation” in England), the committee limited the incentives of the Patent Clause to exclusive rights alone.¹⁵⁷ Stated another way, inventors are given an incentive to invent because they can exclude others from pirating the invention. Under the U.S. system, the government does not participate by giving patents as a reward or honor.

C. THE CULTIVATION OF THE AMERICAN PATENT SYSTEM THROUGH THE PATENT ACT

Since the ratification of the Patent Clause, Congress has enacted several Patent Acts to carry out the exchange of a complete disclosure for a limited monopoly called for in the Patent Clause.¹⁵⁸ In some situations, this exchange has been compared to contract law. Traditionally, this exchange is not thought of as a balancing of the inventor’s and the public’s rights. Instead, this exchange is looked at through equity to ensure that the inventor has fulfilled the policy requirements that justify the system. Recently, the United States Supreme Court has stated that the Patent Clause itself reflects a need to avoid suppressive monopolies that stifle competition without any significant advance in the progress of science and useful arts.¹⁵⁹ This advance in the useful arts to which the Supreme Court refers is realized by the disclosure of the invention to the public. In order to justify this exchange, the current Patent Act provides the framework for disclosing one’s discovery in exchange for the right to exclude. Congress has attempted to uphold the justifications for a patent system since the advent of the Patent Act in 1790.

¹⁵³ U.S. CONST. art. I, § 8, cl. 8.

¹⁵⁴ H.R. REP. NO. 1923, 82d Cong. (2d Sess. 4 1952); S. REP. NO. 1979, 82d Cong. (2d Sess. 3 1952), *reprinted in* 1952 U.S.C.C.A.N. at 2394.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ ADELMAN ET AL., *supra* note 14, at 17.

¹⁵⁸ *See generally* CHISUM ET AL., *supra* note 2, at 18-22.

¹⁵⁹ *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 143, 9 U.S.P.Q.2d (BNA) 1847, 1848 (1989).

1. *The Patent Act of 1790.* President George Washington signed into law America's first patent statute on April 10, 1790, and Thomas Jefferson assumed primary administrative authority over this Act.¹⁶⁰ The Patent Act of 1790 was a far cry from the patent system of today. In 1790 though, inventive forces were a far cry from the minds that sparked the industrial and computer revolutions of today. Accordingly, stringent requirements for examination were not needed in 1790. The Patent Act of 1790 did not even create a patent office, which would later become a glaring necessity to the patent process.¹⁶¹ The Patent Act of 1790 allowed for patent examination¹⁶² by a patent board seated by the Secretary of State Thomas Jefferson, the Secretary of War Henry Knox, and the Attorney General Edmund Randolph.¹⁶³ Under this Act, only fifty-five patents issued before the unworkability of the process and the problems with upholding the exchange of the Patent Clause outweighed the burden of drafting a new Patent Act.¹⁶⁴ Notwithstanding the bleak resemblance to present day patent law, one of the requirements of the Patent Act of 1790 that is still evident today is that patents are allowed for discoveries which encompass "any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used."¹⁶⁵

2. *The Patent Act of 1793.* Inasmuch as the Patent Act of 1790 became an unbearable burden on the three-member composition of the patent board, Congress passed the Patent Act of 1793 in an attempt to better justify the Patent Clause.¹⁶⁶ The Patent Act of 1793 strayed far from the intent of the Constitution though. In particular, the Patent Act of 1793 eliminated the examination process,

¹⁶⁰ Act of Apr. 10, 1790, ch. 7, 1 Stat. 109.

¹⁶¹ See generally CHISUM ET AL., *supra* note 2, at 18-19.

¹⁶² The Patent Act of 1790 incorporated several aspects of the common law; however, the examination aspect of the Act was truly unique and truly American. *Id.* at 18 n.70. The United States was one of the leading countries to employ examination as a requirement for a patent. *Id.* For example, England, the country where much of American patent law is derived, used a registration system where a patent application was simply registered and never examined until a conflict arose. *Id.*

¹⁶³ CHISUM ET AL., *supra* note 2, at 18. Thomas Jefferson was the biggest skeptic to the patent system, but after taking a seat on the board, he was known to guard vigorously the intent of the patent system. *Id.* at 17, 18 n.70.

¹⁶⁴ CHISUM ET AL., *supra* note 2, at 18 n.69.

¹⁶⁵ Compare CHISUM ET AL., *supra* note 2, at 18, with 35 U.S.C. § 101 (2000) (providing in whole that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title").

¹⁶⁶ CHISUM ET AL., *supra* note 2, at 19.

the patent board, and implemented a registration system very similar to the registration system of England.¹⁶⁷

This move by Congress was a move to the polar opposite of the Patent Act of 1790; “[t]he Act of 1793 went from the extreme of rigid examination to the opposite extreme of no examination at all.”¹⁶⁸ The chief problem associated with a registration system that does not require examination is that the validity of a patent is not determined until a dispute arises. Accordingly, an individual could rely on an invalid patent until someone is willing to challenge it. In light of this lack of examination, pirated and duplicative patents flooded the system, and the exchange called for in the Constitution broke down because identifying the true inventor and determining what was invented became difficult.¹⁶⁹ Therefore, forty-three years later, Congress decided that the patent system set forth in the Patent Act of 1793 diverged from the spirit of the Constitution.

3. *The Patent Act of 1836.* In 1836, Congress enacted another Patent Act, which has been recognized as the beginning of America’s present patent system.¹⁷⁰ In some aspects, the Patent Act of 1836 reverted back to the same essence of the Patent Act of 1790. The Patent Act of 1836 reintroduced the requirement that a patent application be examined for novelty and utility so as to uphold the exchange in the Patent Clause.¹⁷¹ This move was in large response to the public outcry over appropriated and overlapping patents, which convoluted an individual’s protected rights and reduced disclosure incentives. The Patent Act of 1836 further changed the patent world by creating a Patent Office, which was a separate but distinct bureau in the U.S. Department of State.¹⁷²

4. *The Patent Act of 1870.* Notwithstanding the workability and overall acceptance of the Patent Act of 1836, the Act was revised again in 1870.¹⁷³ The Patent Act of 1870 was enacted in large response to the courts’ increased problems with defining exactly what constitutes the discovery disclosed in the patent application.¹⁷⁴ The courts struggled with separating what was old and what was new in patent applications. The Patent Act of 1870, therefore, placed greater

¹⁶⁷ KENNETH W. DOBYNS, *THE PATENT OFFICE PONY—A HISTORY OF THE EARLY PATENT OFFICE* 35 (1994), available at <http://www.myoutbox.net/popch06.htm> (last visited Apr. 16, 2004).

¹⁶⁸ *Id.*

¹⁶⁹ CHISUM ET AL., *supra* note 2, at 19 (citations omitted). The Patent Act of 1793 was not a complete disaster. This Act laid the foundation for several bases of the present patent system, including infringement defenses of “public use” and the “on sale bar.” *Id.* at 19 n.73. The Patent Act of 1793 also set the foundation for the disclosure requirements with which patent attorneys are so in tune today. *Id.*

¹⁷⁰ CHISUM ET AL., *supra* note 2, at 20 (citations omitted).

¹⁷¹ *Id.*

¹⁷² *Id.* at 20-21.

¹⁷³ *Id.* at 21.

¹⁷⁴ See generally RIDSDALE ELLIS, *PATENT CLAIMS* 3 (1949).

emphasis on the patent claims, which point out with specificity what the applicant is attempting to encompass. Similar to a plot of land, Congress wanted the claims to work as a fence separating the new from the old so the public would know exactly what was being exchanged for the limited monopoly right.

For nearly sixty years after the implementation of the Patent Act of 1870, the Supreme Court and the public embraced the patent system with open arms.¹⁷⁵ The Supreme Court typically decided several patent cases every term, and the decisions usually were in favor of upholding the patent.¹⁷⁶ Then in 1930, the Great Depression changed all aspects of America, and the United States Supreme Court began to view patents with great skepticism.¹⁷⁷

The Supreme Court, led by the efforts of Justices Douglas and Black, began striking down patents due to concerns for the social costs of the monopolistic flavor of patents.¹⁷⁸ Furthermore, the Court began crafting rules to make obtaining and enforcing a patent more difficult. For example, the Court expanded the doctrine of patent misuse,¹⁷⁹ eliminated a useful method of drafting patent claims (means plus function claims),¹⁸⁰ increased the bar of conception (requiring a flash of genius),¹⁸¹ and nearly did away with the patentability of combinations of old elements (requiring synergism).¹⁸²

The Supreme Court's behavior led Justice Jackson, in one of his many dissenting opinions, to state: "the only patent that is valid is one which this Court has not been able to get its hands on."¹⁸³ Judge Learned Hand also expressed his disdain regarding one of the Supreme Court's anti-patent decisions, stating that "[the inventiveness test is] as fugitive, impalpable, wayward, and vague a phantom

¹⁷⁵ ADELMAN ET AL., *supra* note 14, at 20.

¹⁷⁶ *Id.*

¹⁷⁷ CHISUM ET AL., *supra* note 2, at 21.

¹⁷⁸ *Id.*

¹⁷⁹ *Mercoird Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661, 60 U.S.P.Q. (BNA) 21 (1944).

¹⁸⁰ *Halliburton Oil Well Cementing Co. v. Walker*, 329 U.S. 1, 71 U.S.P.Q. (BNA) 175 (1946). Today, means plus function claiming is one of the most useful tools that a patent attorney has at his or her disposal. 35 U.S.C. § 112 provides in part that

[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112 (2000).

¹⁸¹ *Cuno Eng'g Corp. v. Automatic Devices Corp.*, 314 U.S. 84, 51 U.S.P.Q. (BNA) 272 (1941).

¹⁸² *Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 87 U.S.P.Q. (BNA) 303 (1950). For patentability, the synergism test required that the combination of old elements had to equal more than the sum of its parts. Today, this requirement has been abolished.

¹⁸³ *Jungersen v. Ostby & Barton Co.*, 335 U.S. 560, 572, 80 U.S.P.Q. (BNA) 32 (1949).

as exists in the whole paraphernalia of legal concepts.”¹⁸⁴ Needless to say, the patent bar, inventors, and several prominent judges were not pleased with the Supreme Court’s social and political views toward patents. This prompted Judge Giles Sutherland Rich, regarded as the founding father of the modern patent system, to help draft the present Patent Act of 1952 in order to reinstate the appropriate incentives for inventors.¹⁸⁵

5. *The Patent Act of 1952.* Through Judge Rich’s efforts, the Patent Act of 1952 trumped several of the Supreme Court’s anti-patent rulings. Insofar as the Supreme Court’s roadblocks were overcome, the criteria set forth in the Patent Act of 1952, which must be satisfied to receive successfully a patent on one’s discovery, are quite few.¹⁸⁶ The 1952 Patent Act requires that an inventor file an application so that the patentability of an individual’s discovery can be ascertained.¹⁸⁷ That application for the discovery must contain a set of claims that particularly and distinctly point out the individual’s discovery. As stated by the current Patent Act, discovery is defined as any “useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.”¹⁸⁸ Furthermore, the invention must be novel; the disclosure of the invention must be adequately described to allow a person of ordinary skill to make or use the invention; and the inventor must set forth the best mode of the invention.¹⁸⁹ Also, a patent for an invention may not be obtained

¹⁸⁴ *Harries v. Air King Prod. Co.*, 183 F.2d 158, 162, 86 U.S.P.Q. (BNA) 57 (2d Cir. 1950).

¹⁸⁵ CHISUM ET AL., *supra* note 2, at 22-23.

¹⁸⁶ SCHLICHER, *supra* note 15, at 581, 584.

¹⁸⁷ *Id.* at 584. A patent application must contain a written description with one or more claims, drawings if necessary to understand the invention, and an oath or declaration from the inventor. The Patent and Trademark Office prefers that the patent application contain the following: (1) a title; (2) cross-references to related inventions; (3) a statement regarding federally-sponsored research; (4) a background to the invention; (5) a summary of the invention; (6) a brief description of the drawings; (7) a detailed description of the invention; (8) one or more claims to the invention; (9) an abstract of the disclosure; (10) drawings if necessary; and (11) an oath or declaration. CHISUM ET AL., *supra* note 2, at 94.

¹⁸⁸ 35 U.S.C. § 101 (2000).

¹⁸⁹ 35 U.S.C. § 102 (2000); 35 U.S.C. § 112 (2000). 35 U.S.C. § 102 provides in pertinent part as follows:

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States. . . .

35 U.S.C. § 102 (2000). 35 U.S.C. § 112 provides in pertinent part as follows:

The specification shall contain a written description of the invention, and of the

if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.¹⁹⁰

Along with the requirements of an individual's discovery, the United States Patent and Trademark Office must examine an individual's patent application to determine if the application adequately sets forth the individual's invention and whether the invention distinguishes the prior art.¹⁹¹ This is needed to determine if the inventor's disclosure is an even trade for the limited monopoly rights. More often than not, the Patent Office rejects several of the claims describing the individual's invention. The inventor then has an opportunity to respond to the rejection through argument or amendment of the claims in order to receive allowance. This process continues until the application is ultimately abandoned, or the application issues as a patent. If the application issues as a patent, the patent itself, *along with the prosecution history*, puts the world on notice of the inventor's discovery.

The disclosure to the world is that which is exchanged for the exclusive rights granted by the Patent Clause. The requirements and system of prosecution of the 1952 Patent Act were implemented to give weight to the inherent disclosure requirement of the Patent Clause while promoting disclosure through the system.¹⁹² These requirements were also implemented to reinforce the exchange required by the Patent Clause, namely, to give inventors exclusive rights for their

manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

35 U.S.C. § 112 (2000).

¹⁹⁰ 35 U.S.C. § 103(a) (2000). Despite the meager wording of this rule, the nonobviousness requirement of an invention is the patent attorney's playground because it is so subjective. The rule first requires a patent attorney to determine a fictional person of ordinary skill in the art. Then the attorney must go back to the time at which the invention was made. The attorney must then look at all of the prior art available at that time and determine if the fictional person of ordinary skill would have found it obvious to modify the prior art to make the invention.

¹⁹¹ SCHLICHER, *supra* note 15, at 584.

¹⁹² See CHISUM ET AL., *supra* note 2, at 21-21. The Patent Act of 1952 overruled several of the Supreme Court's strict formalistic rulings decided in the 1940s.

discoveries while promoting science by requiring inventors to point out and distinctly claim their discoveries.¹⁹³

These requirements also highlight how the Patent Act of 1952 attempts to fortify and support the Patent Clause. As opposed to a single act comprising our patent system, however, the Patent Clause, Patent Act, and the philosophical and economic justifications are a homogeneous fluid that combine to uphold our patent system. One of the main forces supporting the Patent Clause is the prevention of piracy. The act of piracy is determined through analyzing the patent's disclosure and claims. This disclosure takes place by defining the invention with words. Words are subject to interpretation; yet, without these words, a discovery would never be conveyed. Accordingly, the scope of the words forming the claims is one of the most debated issues surrounding the exchange required by the Patent Clause because the scope determines whether a second-comer is infringing the claims of a patent or is outside the scope of the claims.

IV. DISCLOSING AN INVENTION THROUGH THE WORDS OF A PATENT CLAIM—THE AMBIGUITIES OF LANGUAGE

"I'm glad they've begun asking riddles—I believe I can guess that," [Alice] added aloud.

"Do you mean that you think you can find out the answer to it?" said the March Hare.

"Exactly so," said Alice.

"Then you should say what you mean," the March Hare went on.

"I do," Alice hastily replied; "at least—at least I mean what I say—that's the same thing, you know."

"Not the same thing a bit!" said the Hatter.¹⁹⁴

In an ideal world, inventors and patent attorneys would say exactly what they mean in patent applications.¹⁹⁵ Given the ambiguities of language and the need for interpretation that arises in the English language, however, what one actually means is not always ascertainable. In the words of Supreme Court Justice Kennedy, "[t]hings are not made for the sake of words, but words for things."¹⁹⁶ Further complicating this matter is the fact that a patent attorney can be his or her

¹⁹³ *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150-51, 9 U.S.P.Q.2d (BNA) 1847, 1850 (1989).

¹⁹⁴ CARROLL, *supra* note 1, at 69.

¹⁹⁵ CHISUM ET AL., *supra* note 2, at 836.

¹⁹⁶ *Festo II*, 535 U.S. at 731 (citations omitted).

own lexicographer.¹⁹⁷ Stated another way, a patent attorney can make up words to describe an invention, and a patent attorney can make words mean something other than their dictionary definitions. Ambiguities of language are also magnified by imperfections inherent in many humans.¹⁹⁸ These characteristics include poor communication between the inventor and the patent attorney, a lack of understanding of the inventor's discovery, and a poor comprehension of future markets available for the discovery.¹⁹⁹ In patent matters, the meaning of a word can also depend on the luck of the draw from the examiner pool.²⁰⁰ The meaning of a word can change through prosecution depending on what an examiner interprets a word to mean.²⁰¹ This interpretation might be totally unknown to the patentee or the prosecuting attorney.²⁰²

As a result of the ambiguities of language, much of the patent litigation instigated today turns on the meaning of words. The courts have struggled with this problem since the advent of the patent system because a constitutional conflict arises with ambiguities in the disclosure. The conflict, like most other patent issues, arises between the inventor's grant of a limited monopoly in exchange for a clear and enabling disclosure to the public. If the words of a patent convolute the applicant's discovery, then the public does not get the benefit or knowledge of the discovery. Furthermore, if patent protection remained on a discovery with convoluted language, the inventor would receive a monopoly benefit without providing the public with a full and enabling disclosure.

Notwithstanding the clear need to resolve any ambiguities in the language of the claims, a complete adherence to the written word would also cause the patent system to crumble.²⁰³ A strict and literal adherence to the words of the claims of a patent application can invite subversion of patent protection.²⁰⁴ If the words of a patent application were ridged, an invention could be pirated by changing one element of a discovery, where the changed element is merely an equivalent or cosmetic change to a word. For example, a literal interpretation of the word "nailed" might not encompass a structure that is "riveted." In some situations though, the word "nailed" might be considered an equivalent to the word "riveted." If rigidity of interpretation were implemented, then the value of the monopoly right would be substantially reduced because copiers could merely make a cosmetic change and avoid patent infringement. This, in turn, would

¹⁹⁷ MANUAL OF PATENT EXAMINING PROCEDURE § 2111 (8th ed. 2001).

¹⁹⁸ CHISUM ET AL., *supra* note 2, at 836.

¹⁹⁹ *Id.*

²⁰⁰ *Festo III*, 344 F.3d at 1385 (Rader, J., concurring).

²⁰¹ *Id.* at 1385.

²⁰² *Id.*

²⁰³ CHISUM ET AL., *supra* note 2, at 874-75.

²⁰⁴ *Id.* at 874.

discourage inventors from disclosing their discoveries and cause inventors to keep their inventions secret. As a result, society would not receive the benefit of the invention; general economic incentives would be reduced; and the inventor's rights to a discovery would dwindle.

In many situations, the considerations between a literal adherence to words and an equivalents adherence to words comes down to whom is the master: the inventor attempting to convey what he or she means or the literal meaning of words. On one hand, inventors might mean what they say; this does not equate, however, to the inventor saying exactly what he or she means. On the other hand, words can mean many different things depending on the context. This conflict in language was fully acknowledged by district court Judge Rya W. Zobel, quoting, in the words of Lewis Carroll:

"When I use a word," Humpty Dumpty said, . . . "it means just what I choose it to mean—neither more nor less."

"The question is," said Alice, "whether you can make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be the master—that's all."²⁰⁵

Historically, the courts have struggled with whether the inventor's meaning or the literal meaning of the word is master. The courts have attempted to resolve this issue by letting both the word and the inventor be master at some juncture in the prosecution. The courts, through two judicially created doctrines, namely the doctrine of equivalents and the doctrine of prosecution history estoppel, attempted to resolve this problem.

To allow some of an inventor's intentions to take afoot, the doctrine of equivalents provides that where two devices do the same work in substantially the same way to bring about the same result, they are the same even if they differ in name, shape, or form.²⁰⁶ The doctrine of equivalents is a common law doctrine that has its teeth in nearly 150 years of history. In *Winans v. Denmead*,²⁰⁷ the Court determined for the first time that an alleged infringer's octagonal and pyramidal shaped railroad car infringed a patent that claimed the railroad car as cylindrical

²⁰⁵ *Polaroid Corp. v. Eastman Kodak Co.*, 641 F. Supp. 828, 838 n.8, 228 U.S.P.Q. (BNA) 305, 312 (D. Mass. 1985), *aff'd*, 789 F.2d 1556 (Fed. Cir. 1986) (alteration in original) (quoting LEWIS CARROLL, ALICE'S ADVENTURES IN WONDERLAND & THROUGH THE LOOKING-GLASS, 186 (1960)).

²⁰⁶ *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608, 85 U.S.P.Q. (BNA) 328, 331 (1950).

²⁰⁷ 56 U.S. 330 (1854) (stating that the essence of the doctrine is that a second-comer may not practice fraud on the patent).

and conical.²⁰⁸ The Court stated that the claims as reasonably interpreted only required that the car be so near to a true circle to embody the patentee's mode of operation and thereby attain the same kind of result as was reached by his invention.²⁰⁹

These intentions to protect the inventor still ring true today; however, our modern cases have added meat to the doctrine of equivalents. The *Graver Tank* decision has been, until recently, the leading authority on the doctrine of equivalents.²¹⁰ Nearly fifty years later, in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*,²¹¹ the Court clarified its stance on the doctrine and reaffirmed its views on its application; then, in *Festo II*,²¹² the United States Supreme Court stated that it will not hear any further debate on the doctrine.²¹³

As a trump to the doctrine of equivalents, the doctrine of prosecution history estoppel precludes patent owners from obtaining a construction to the words of their claims that would, in effect, resurrect surrendered subject matter. In other words, courts make the literal meaning of the word master under the doctrine of prosecution history estoppel. In *Warner-Jenkinson*, the Court set forth the requirements of prosecution history estoppel. Several years later in *Festo II*, the Court reconsidered its prior views of prosecution history estoppel.²¹⁴ Then, the Federal Circuit weighed in on the Supreme Court's decision and helped expand the arms of prosecution history estoppel and reduce the breadth of the doctrine of equivalents.²¹⁵

These cases have considered the meaning of words through an analysis of the doctrine of equivalents and the doctrine of prosecution history estoppel. In these cases, the courts have attempted to look at the individual doctrines and piece together a justifiable result. When viewed in light of the historical development of the patent system, economic justifications for the system, and philosophical justifications for the system, however, the protection of the inventor's incentive to disclose is paramount.

²⁰⁸ *Id.* at 343-44.

²⁰⁹ *Id.*

²¹⁰ CHISUM ET AL., *supra* note 2, at 875.

²¹¹ 520 U.S. 17, 41 U.S.P.Q.2d (BNA) 1865 (1997).

²¹² 535 U.S. at 722.

²¹³ 520 U.S. at 25-27 (reaffirming Court's views on the doctrine of equivalents); *Festo II*, 535 U.S. at 731-32 (stating that Court will no longer hear debate on the matter).

²¹⁴ *Festo II*, 535 U.S. at 733.

²¹⁵ *Festo III*, 344 F.3d at 1359; Lewis R. Clayton, *The Latest Festo' Ruling*, NAT'L L.J., Dec. 22, 2003, at 19.

A. BROADENING LITERALISM THROUGH THE DOCTRINE OF EQUIVALENTS

*"[T]hings equal to the same thing may not be equal to each other and, by the same token, things for most purposes different may sometimes be equivalents."*²¹⁶

1. *The Graver Tank Court.* In *Graver Tank*, the United States Supreme Court affirmed the district court, stating that the doctrine of equivalents applies if two devices perform substantially the same function in substantially the same way to obtain the same result.²¹⁷ In *Graver Tank*, Linde Air Products Co. sued Lincoln and two Graver companies for infringing one of Linde Air's patents.²¹⁸ The patent pertained to a composition of flux for electrically welding a structure.²¹⁹ Essentially, the patent claimed a combination consisting of alkaline earth metal silicate.²²⁰ In use, Linde Air used magnesium silicate as one of the alkaline earth metals that made up the composition.²²¹ Graver then made a product substantially similar to the composition described in Linde Air's patent, but Graver substituted manganese silicate for the magnesium silicate used by Linde Air.²²² Manganese silicate is not an alkaline earth metal.

The district court heard a myriad of evidence regarding the similarity of magnesium silicate and manganese silicate.²²³ Several chemists testified as to the similarity of the reactions between the two metals.²²⁴ Evidence from metallurgists indicated that the two metals were often found together.²²⁵ Further testimony established that for purposes of the Linde Air patent, manganese silicate could be included as an alkaline earth metal.²²⁶ Various treatises in organic chemistry corroborated the contentions of the chemists and engineers.²²⁷

In light of the testimony from the engineers and scientists, the district court stated that manganese silicate can be efficiently and effectively substituted for magnesium silicate as a major constituent of the welding process.²²⁸ The trial court did not find that Graver's product literally infringed Linde Air's patent

²¹⁶ *Graver Tank*, 339 U.S. at 609.

²¹⁷ *Id.* at 608.

²¹⁸ *Id.* at 606.

²¹⁹ *Id.*

²²⁰ *Id.* at 610.

²²¹ *Graver Tank*, 339 U.S. at 610.

²²² *Id.*

²²³ *Id.* at 610-11.

²²⁴ *Id.* at 610.

²²⁵ *See id.* at 610-11 (noting that metallurgists stated that alkaline earth metals are often found in manganese ores in their natural state).

²²⁶ *Graver Tank*, 339 U.S. at 611.

²²⁷ *Id.*

²²⁸ *Id.* at 611-12.

because Graver's product did not read on every element of Linde Air's patent.²²⁹ The district court did find, however, that Graver infringed Linde Air's patent through the doctrine of equivalents.²³⁰ Graver appealed the decision of the district court, and the circuit court upheld the district court's decision regarding the doctrine of equivalents. On rehearing, the United States Supreme Court addressed the sole issue of whether the doctrine of equivalents is a valid doctrine to apply to the claims.²³¹

The Supreme Court affirmed the decision of the district court by emphasizing the importance of the doctrine of equivalents.²³² Justice Jackson, writing for the majority, first addressed the need for the doctrine of equivalents in the patent system.²³³ Justice Jackson stated that when determining infringement, one must first look to the words of the patent claims.²³⁴ If the accused device falls within the fence of the claims, infringement exists, and the story is over.²³⁵ If the accused device falls outside the words of the claims, however, then it may still infringe through the doctrine of equivalents.²³⁶

Justice Jackson emphasized that a patent would be a hollow, useless thing if courts allowed imitation that did not necessarily copy every literal detail.²³⁷ If this was the case, a copier would be encouraged to make insubstantial changes that would add nothing but would be sufficient to force the device outside the literal interpretation of the claims.²³⁸ Justice Jackson continued by recognizing that an individual rarely pirates the exact structure of a device.²³⁹ Instead, an individual who seeks to pirate an invention usually makes minor changes to mask the piracy.²⁴⁰ To allow those insignificant changes puts the "inventor at the mercy of verbalism" where the word is master, and the inventor is a mere subordinate to substance and form.²⁴¹ This, in turn, would deprive the inventor of the benefits of the invention and nurture concealment as opposed to disclosure of the

²²⁹ *Id.* at 607, 610.

²³⁰ *Id.* at 607.

²³¹ *Graver Tank*, 339 U.S. at 605-06.

²³² *Id.* at 607, 612.

²³³ *Id.* at 605, 607-08.

²³⁴ *Id.* at 607.

²³⁵ *Id.*

²³⁶ *Graver Tank*, 339 U.S. at 607.

²³⁷ *Id.*

²³⁸ *Id.*

²³⁹ *Id.* at 607.

²⁴⁰ *Id.* Justice Jackson compared patent law to copyright law in this instance. He stated that copiers rarely copy an entire book or a play; they frequently make minor changes to try to cover up the copying of the literature. *Id.*

²⁴¹ *Graver Tank*, 339 U.S. at 607.

invention to the public.²⁴² As a result, the exchange of disclosure for a monopoly would not take place, and one of the primary purposes of the patent system would be negated.

Justice Jackson explained that the doctrine of equivalents arose to protect inventors and the patent system from crumbling in the wake of verbalism.²⁴³ This idea originated over 150 years ago to stifle fraud.²⁴⁴ The doctrine of equivalents was founded on the theory that “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.”²⁴⁵

As applied to Linde Air’s patent, Justice Jackson looked to the facts and deferred to the district court’s findings. Justice Jackson acknowledged that the trial lasted three weeks and that the district court judge visited laboratories, heard hours of testimony, and viewed several videos.²⁴⁶ In light of the district court’s findings, Justice Jackson opined that it would be difficult for him to conceive of a clearer case for applying the doctrine of equivalents.²⁴⁷ Accordingly, Justice Jackson affirmed the district court’s finding of infringement through the doctrine of equivalents.²⁴⁸

2. *The Warner-Jenkinson Court.* Nearly fifty years later in *Warner-Jenkinson*, the Court declined an invitation to put to death the doctrine of equivalents and instead clarified the metes and bounds of the doctrine.²⁴⁹ In *Warner-Jenkinson*, Hilton Davis Chemical Company held a patent for purifying dyes by filtering the dye through a porous membrane at a certain pressure and pH level.²⁵⁰ When the patent application was submitted, the claims of the application did not specify a specific pH level for the dye.²⁵¹ During prosecution of the application, the examiner rejected the claims of the Hilton Davis application based on the Booth

²⁴² *Id.*

²⁴³ *Id.* at 608.

²⁴⁴ *Id.* (citations omitted).

²⁴⁵ *Id.* at 609.

²⁴⁶ *Graver Tank*, 339 U.S. at 611.

²⁴⁷ *Id.* at 612.

²⁴⁸ *Id.* This case also produced a dissent by Justice Black, in which Justice Douglas concurred. As stated above, at this time, a large conflict existed in the Court about where the patent system should be going. Justices Jackson, Black, and Douglas were enemies on this battlefield. Both Justices Black and Douglas were opposed to the monopolistic flavor patents brought to the economy. Justice Jackson viewed patents as a means to stimulate the economy and the growth of the nation in the arts and sciences. Inasmuch as Justices Black and Douglas’s opinions have not stood the test of time, they are not discussed in this Article. Furthermore, any lurking ghosts from Justices Black and Douglas’s theories have been put to rest by the 1952 Patent Act.

²⁴⁹ *Warner-Jenkinson*, 520 U.S. at 21.

²⁵⁰ *Id.* at 21-22.

²⁵¹ *Id.* at 32.

patent.²⁵² The Booth patent taught a similar filtration process, but the claims specified that the process must take place at a pH level above 9.0.²⁵³ The examiner argued that the claims of the Hilton Davis application were too broad because they included dye with a pH level above 9.0.²⁵⁴ Accordingly, the Hilton Davis application was amended to claim a pH level between 6.0 and 9.0.²⁵⁵ The reason for including the lower limit of a pH of 6.0 was unclear to the Court.²⁵⁶ Warner-Jenkinson argued that the lower range was implemented because Hilton Davis knew the dye foamed at a pH level lower than 6.0.²⁵⁷ Hilton Davis explained that the process was tested successfully at a pH level of 2.2, but Hilton Davis failed to give an explanation why the lower limit was included.²⁵⁸ The Court observed that putting the upper limit of a pH of 9.0 distinguished the Booth Patent so the lower limit of a pH of 6.0 was unnecessary to get around the examiner's rejection.²⁵⁹

The Hilton Davis application eventually became a patent with the claims reciting a pH level between 6.0 and 9.0. Not knowing of the Hilton Davis patent, Warner-Jenkinson began commercial use of a filtration process similar to the claims of Hilton Davis's patent except that the pH level was about 5.0.²⁶⁰ Hilton Davis then sued Warner-Jenkinson for infringement under the doctrine of equivalents.²⁶¹ The district court found that Warner-Jenkinson infringed under the doctrine of equivalents.²⁶² Warner-Jenkinson then appealed the decision to the Circuit Court of the United States for the Federal Circuit.²⁶³ A divided court affirmed the district court decision. Five judges dissented through three separate opinions because the judges could not agree on the metes and bounds of the doctrine of equivalents.²⁶⁴ The Supreme Court of the United States granted certiorari to resolve the confusion in the district courts and the Federal Circuit over the doctrine of equivalents.²⁶⁵

The Court ultimately reversed and remanded the Federal Circuit's opinion in order for the Federal Circuit to consider the facts in light of the Court's

²⁵² *Id.*

²⁵³ *Id.*

²⁵⁴ *Warner-Jenkinson*, 520 U.S. at 32.

²⁵⁵ *Id.*

²⁵⁶ *Id.* at 33.

²⁵⁷ *Id.* at 22 n.2.

²⁵⁸ *Id.*

²⁵⁹ *Warner-Jenkinson*, 520 U.S. at 33.

²⁶⁰ *Id.* at 23.

²⁶¹ *Id.* at 21.

²⁶² *Id.*

²⁶³ *Id.* at 17, 21.

²⁶⁴ *Warner-Jenkinson*, 520 U.S. at 23, 24.

²⁶⁵ *Id.* at 24.

discussion on the doctrine of equivalents.²⁶⁶ Justice Thomas, writing for a unanimous court, addressed the significance of the doctrine of equivalents in the patent system.²⁶⁷ The Court rejected Warner-Jenkinson's request to strike down *Graver Tank* and the doctrine of equivalents. The Court acknowledged, however, that the doctrine "has taken on a life of its own, unbound by the words of the patent claims."²⁶⁸ The Court stated that a broad application of the doctrine conflicts with the disclosure requirements of the Constitution.²⁶⁹

Justice Thomas stated that when applying the doctrine of equivalents, one should not look at the invention as a whole to see if equivalents exist as a whole.²⁷⁰ This type of analysis could lead to a conclusion that expands the limits of the words of the claims.²⁷¹ The doctrine of equivalents analysis should refer to the equivalents of the individual elements or parts of the invention and the individual elements or parts of the accused product or device.²⁷² In light of this view, the Court concluded that it would not be enlarging the patent beyond the scope of the claims as long as the Court did not go beyond the substitution of elements.²⁷³ Hence, the Court would not be circumventing the exchange required by the Patent Clause.²⁷⁴

²⁶⁶ *Id.*

²⁶⁷ *Id.* at 17, 29.

²⁶⁸ *Id.* at 28-29.

²⁶⁹ *Warner-Jenkinson*, 520 U.S. at 28-29.

²⁷⁰ *Id.* at 29.

²⁷¹ *Id.*

²⁷² *Id.*

²⁷³ *Id.*

²⁷⁴ The doctrine of equivalents was also discussed in detail in *Festo II*, 535 U.S. at 722. The Court in *Festo II* reaffirmed the Court's prior holdings as to the doctrine of equivalents in both *Graver Tank* and *Warner-Jenkinson*. The Court continued by stating that this is now settled law and any further contentions should go to Congress, not the Supreme Court of the United States. The Court reasoned the importance of applying the doctrine of equivalents to words as follows:

An invention exists most importantly as a tangible structure or a series of drawings. A verbal portrayal is usually an afterthought written to satisfy the requirements of patent law. This conversion of machine to words allows for unintended idea gaps which cannot be satisfactorily filled. Often the invention is novel and words do not exist to describe it. The dictionary does not always keep abreast of the inventor. It cannot. Things are not made for the sake of words, but words for things

It is true that the doctrine of equivalents renders the scope of patents less certain. It may be difficult to determine what is, or is not, an equivalent to a particular element of an invention. If competitors cannot be certain about a patent's extent, they may be deterred from engaging in legitimate manufactures outside its limits, or they may invest by mistake in competing products that the patent secures. In addition the uncertainty may lead to wasteful litigation between competitors, suits that a rule of literalism might avoid. These concerns

B. UPHOLDING LITERALISM THROUGH PROSECUTION HISTORY ESTOPPEL

In addition to stressing the importance of the doctrine of equivalents, the Court in *Warner-Jenkinson* emphasized that if the doctrine of equivalents was applied loosely, then it would undermine the disclosure requirements of the Patent Clause.²⁷⁵ The Court stated that an all elements approach must be applied to the doctrine of equivalents.²⁷⁶ In other words, there must be equivalents of each element of the patent claim and not merely equivalents of the accused subject matter as a whole.²⁷⁷

As many courts before *Warner-Jenkinson* have recognized, the doctrine of equivalents may sometimes run afoul. Equivalents is a subjective question, and therefore, opinions as to equivalents and the meaning of words vary between individuals and judges. In order to instill an objective flavor into the construction of claims, the doctrine of prosecution history estoppel arose as one trump to the doctrine of equivalents.

Essentially, the doctrine of prosecution history estoppel precludes an inventor from using the doctrine of equivalents to resurrect the meaning of a word surrendered through amendment during the prosecution of the patent.²⁷⁸ The modern views of prosecution history estoppel were initially set forth in *Warner-Jenkinson*. Then, several years later in *Festo I*, the Federal Circuit gave the doctrine of prosecution history estoppel a broad scope in order to limit the reach of the doctrine of equivalents. The Supreme Court proceeded to cut back the Federal Circuit's attempts to stifle the doctrine of equivalents. In September 2003 though, the Federal Circuit gave prosecution history estoppel expansive arms, which has substantially reduced the breadth of the doctrine of equivalents.

1. *The Warner-Jenkinson Court.* In *Warner-Jenkinson*, the Court adhered to the historical view that prosecution history estoppel was tied to amendments made to avoid the bounds of the prior art.²⁷⁹ When an amendment is made to an element or word of a claim, the inventor may not then argue in an infringement suit that an alleged infringer infringes the amended element under the doctrine of

with the doctrine of equivalents, however, are not new. Each time the Court has considered the doctrine, it has acknowledged this uncertainty as the price of ensuring the appropriate incentives for innovation, and it has affirmed the doctrine over dissents that urged a more certain rule.

Festo II, 535 U.S. at 731-32 (citations omitted).

²⁷⁵ CHISUM ET AL., *supra* note 2, at 911.

²⁷⁶ *Id.*

²⁷⁷ *Id.*

²⁷⁸ *Id.* at 910.

²⁷⁹ *Warner-Jenkinson*, 520 U.S. at 17, 30-31.

equivalents.²⁸⁰ The Court reasoned that the inventor conceded the structure or meaning of the word to obtain patentability of the claim. If the doctrine of equivalents was applied, the inventor might be able to regain structure or a meaning that the inventor expressly conceded was not encompassed by the patent.

The *Warner-Jenkinson* Court continued by rejecting the petitioner's views that any amendment to the claims should be a complete bar to asserting the doctrine of equivalents as to the amended element.²⁸¹ The Court noted that amendments are made for many different reasons, some of which have nothing to do with patentability.²⁸² The Court emphasized that if the structure was not given up to avoid the prior art, then no reason exists to preclude any equivalents to the structure.²⁸³ Furthermore, the Court stated that where the reason for amending a claim is unclear, the Court will assume that the amendment was made for patentability reasons absent evidence to the contrary.²⁸⁴

In view of the prosecution history of the Hilton Davis patent, Justice Thomas noted that the examiner objected to the claims of the patent due to the perceived overlap with the Booth patent.²⁸⁵ The Booth patent revealed a filtration system that operated at a pH above 9.0.²⁸⁶ In response to the examiner's rejection, the Hilton Davis patent was amended to recite a filtration system that operated between a pH of 6.0 and 9.0.²⁸⁷ Justice Thomas noted that the parties were not disputing that Hilton Davis included the upper limit of 9.0 to avoid the Booth patent.²⁸⁸ In that regard, Hilton Davis was estopped from asserting the doctrine of equivalents as to the upper limit of 9.0.²⁸⁹ Hilton Davis was allowed nothing more than the literal interpretation of a pH of 9.0.²⁹⁰

The Court also noted that the reason for adding the lower limit of 6.0 was entirely unclear because the prior art does not teach a pH of 6.0.²⁹¹ On its face, it seems that the lower limit of 6.0 was written into the patent for no reason at all.

²⁸⁰ *Id.* at 30.

²⁸¹ *Id.*

²⁸² *Id.* at 31.

²⁸³ *Id.* at 30-31.

²⁸⁴ *Warner-Jenkinson*, 520 U.S. at 33.

²⁸⁵ *Id.* at 32.

²⁸⁶ *Id.*

²⁸⁷ *Id.* at 32-33.

²⁸⁸ *Id.*

²⁸⁹ See *Warner-Jenkinson*, 520 U.S. at 32-33 (noting that where an amendment to a patent application is to avoid the prior art, the use of the doctrine of equivalents is not necessarily precluded. Thus, because it is admitted that pH 9.0 was included specifically to avoid the prior art in the Booth patent, the doctrine of equivalents may not be applied to pH 9.0).

²⁹⁰ *Id.*

²⁹¹ *Id.* at 32.

Justice Thomas stated that the mere inclusion of the lower limit of 6.0 became a material element of the claim, but this inclusion did not necessarily preclude the application of the doctrine of equivalents.²⁹² If the lower limit of 6.0 was added for patentability reasons, then the limit is read in its literal terms.²⁹³ If the lower limit of 6.0 was not added for patentability, however, then Hilton Davis might not be precluded from arguing the equivalents of the lower limit.²⁹⁴ Justice Thomas noted that Hilton Davis had provided no explanation on the record of why the lower limit was implemented into the claim.²⁹⁵ Justice Thomas stated that where no reason is established, the court should make a rebuttable presumption that the amendment was made for patentability reasons.²⁹⁶

2. *The Federal Circuit's Approach in Festo I.* In *Festo I*, the Federal Circuit took an approach contrary to the exchange required by the Patent Clause. Contrary to *Warner-Jenkinson*, the Federal Circuit determined that prosecution history estoppel applies if a claim is narrowed to obtain a patent regardless of whether the amendment was made to avoid the prior art.²⁹⁷ The Federal Circuit further stated that all equivalents to the element are thereby surrendered.²⁹⁸

In *Festo I*, Festo Corp. sued Shoketsu Kinzoku Kogyo Kabushiki Co. ("Shoketsu") for infringing two of Festo Corp.'s patents under the doctrine of equivalents.²⁹⁹ The subject matter of the two patents pertained to a piston-driven device that relied on magnets to move objects in a conveying system.³⁰⁰ The Court noted that the device has been implemented in everything from sewing machines to the Thunder Mountain Ride at Disney World.³⁰¹

The first patent on which the Festo Corp. relied was the Stoll patent. During the prosecution of the Stoll patent, the examiner rejected the claims because the examiner believed that a portion of the language used to describe the invention was unclear.³⁰² The examiner further rejected the claims because some of the

²⁹² *Id.*

²⁹³ *Id.* at 33.

²⁹⁴ *Warner-Jenkinson*, 520 U.S. at 32.

²⁹⁵ *Id.* at 33.

²⁹⁶ *Id.*

²⁹⁷ *Festo II*, 535 U.S. at 722.

²⁹⁸ *Id.*

²⁹⁹ *Id.* at 729.

³⁰⁰ *Id.* at 728.

³⁰¹ *Id.*

³⁰² *Festo II*, 535 U.S. at 722. This type of rejection is quite common in patent prosecution. Examiners frequently make this type of rejection when a word is misspelled or where a structure is referred to before it is properly set forth. This type of rejection comes under 35 U.S.C. § 112, which recites in pertinent part that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as the invention." 35 U.S.C. § 112 (2000). Stated another way, rejections of this nature can be made when the examiner

claims were improper multiple dependent claims.³⁰³ In response, the Stoll patent was amended to clarify the language and eliminate the problems with dependency of the claims.³⁰⁴ The amendment was not submitted to circumvent the prior art.³⁰⁵

The Carroll patent was the other patent on which Festo Corp. relied for the patent infringement suit.³⁰⁶ The Carroll patent was amended so the claims described a pair of one-way sealing rings to keep impurities out of the device.³⁰⁷ The Carroll patent was further amended to recite that the shell of the device and the sleeve were made of magnetizable material.³⁰⁸ Similar to the Stoll patent, none of the amendments to the Carroll patent were made to avoid the prior art.³⁰⁹

Some time after, Festo Corp. began selling the device, and Shoketsu entered the market and began selling a similar device.³¹⁰ The Shoketsu device did not use a pair of one-way sealing rings as claimed by the Stoll and Carroll patents; instead, Shoketsu implemented a single two-way sealing ring.³¹¹ Moreover, the sleeve of Shoketsu's device was made of a nonmagnetizable alloy.³¹² Insofar as Shoketsu's device did not fall within the literal boundaries of the Stoll and Carroll patents, Festo Corp. sued Shoketsu under the doctrine of equivalents.³¹³ In view of the prosecution history of the Stoll and Carroll patents, Shoketsu raised the defense of prosecution history estoppel.³¹⁴

In addressing the issue of prosecution history estoppel, the Federal Circuit acknowledged that the United States Supreme Court, in *Warner-Jenkinson*, focused

finds that the language of the claim is confusing.

³⁰³ *Festo II*, 535 U.S. at 728. Rejections of this nature also find basis in 35 U.S.C. § 112. Even though such a rejection is more difficult to explain succinctly, the code reads in pertinent part as follows:

[a] claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

35 U.S.C. § 112 (2000).

³⁰⁴ *Festo II*, 535 U.S. at 722.

³⁰⁵ See generally *id.*

³⁰⁶ *Id.* at 728.

³⁰⁷ *Id.*

³⁰⁸ *Id.*

³⁰⁹ *Festo II*, 535 U.S. at 728.

³¹⁰ *Id.* at 729.

³¹¹ *Id.*

³¹² *Id.*

³¹³ *Id.* at 726.

³¹⁴ *Festo II*, 535 U.S. at 726.

estoppel on amendments made to elements to overcome the prior art.³¹⁵ The Federal Circuit further stated that its own precedent had never articulated that prosecution history estoppel should have sufficient breadth to create estoppel for any amendment related to patentability.³¹⁶

Notwithstanding these roadblocks, the Federal Circuit stated that prosecution history estoppel arises from any amendment that narrows the claims to comply with the Patent Act irrespective of the prior art.³¹⁷ Even more controversially, the Federal Circuit stated that when estoppel arises, it stands as a complete bar against any claim of equivalents for the element that was amended.³¹⁸ Moreover, the Federal Circuit stated that voluntary amendments, if they narrow the claims, bar equivalents as to the amended elements.³¹⁹ The court also stated that if a change to the claim is made and not explained in the amendment, then the change shall be completely barred from any equivalents.³²⁰ In the Federal Circuit's view, the case-by-case approach recited in *Warner-Jenkinson* had become unworkable.³²¹ Thus, the Federal Circuit believed that this bright line rule of estoppel would provide more certainty in determining infringement cases.

In light of the Federal Circuit's liberal view on prosecution history estoppel, the Federal Circuit decided that Festo Corp. was estopped from asserting that any of the elements it changed in the claims were entitled to equivalents.³²² The Federal Circuit noted that neither the Stoll patent nor the Carroll patent were amended to distinguish the prior art. The court stated, however, that this was irrelevant because the patents were amended to gain patentability of the claims.³²³ Accordingly, the Federal Circuit limited the language of the patents to their literal meaning.³²⁴

3. *The Supreme Court's Remand in Festo II.* Festo Corp. appealed the Federal Circuit's decision to the Supreme Court of the United States, and the Court granted certiorari to address the Federal Circuit's expanded view of prosecution history estoppel.³²⁵ Justice Kennedy, writing for a unanimous Court, emphasized the delicate exchange required by the Constitution.³²⁶ After citing the Patent

³¹⁵ *Id.* at 722.

³¹⁶ *Id.*

³¹⁷ *Festo I*, 234 F.3d at 562.

³¹⁸ *Id.* at 569.

³¹⁹ *Id.* at 568.

³²⁰ *Id.* at 578.

³²¹ *Id.* at 565.

³²² *Festo I*, 234 F.3d at 569.

³²³ *Id.* at 591.

³²⁴ *Id.*

³²⁵ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 533 U.S. 915 (2001) (granting writ of certiorari to the United States Court of Appeals for the Federal Circuit).

³²⁶ *Festo II*, 535 U.S. at 731.

Clause, Justice Kennedy explained that monopoly rights are like real property insofar as the boundary description must be clear.³²⁷ This clarity is essential to promote science because it allows the inventor, as well as the public, to know what is owned (or in the case of a competitor, what is not owned).³²⁸ This clarity is necessary because the inventor wants to bring his monopoly rights to light, and the public wants the benefit of the disclosure.

With regard to prosecution history estoppel, Justice Kennedy noted that prosecution history estoppel ensures that the doctrine of equivalents remains tied to its underlying purpose. Justice Kennedy reasoned as follows:

Where the original application once embraced the purported equivalents but the patentee narrowed his claims to obtain the patent or to protect its validity, the patentee cannot assert that he lacked the words to describe the subject matter in question. The doctrine of equivalents is premised on language's inability to capture the essence of innovation, but a prior application describing the precise element at issue undercuts that premise. In that instance the prosecution history has established that the inventor turned his attention to the subject matter in question, knew the words for both the broader and the narrower, and affirmatively chose the latter.³²⁹

The *Festo II* Court continued by agreeing with the Federal Circuit that a narrowing amendment made to satisfy any requirement of the Patent Act *may* give rise to an estoppel.³³⁰ The Court acknowledged, however, that estoppel is usually tied to situations where the applicant made a change to obtain patentability.³³¹ In some cases, amendments are made with no intention of surrendering subject matter. The Court set forth a few examples as follows:

There are some cases, however, where the amendment cannot reasonably be viewed as surrendering a particular equivalent. The equivalent may have been unforeseeable at the time of the application; the rationale underlying the amendment may bear no more than a tangential relation to the equivalent in question; or there may be some other reason suggesting that the patentee could not reasonably be expected to have described the insubstantial

³²⁷ *Id.*

³²⁸ *Id.*

³²⁹ *Id.* at 734-35.

³³⁰ *Id.* at 735.

³³¹ *Festo II*, 535 U.S. at 735.

substitute in question. In those cases the patentee can overcome the presumption that prosecution history estoppel bars a finding of equivalence.³³²

Furthermore, when estoppel does arise, the breadth of estoppel requires an examination of the subject matter that the applicant surrendered through the amendment.³³³ By making an amendment, the applicant has conceded that the amended claims do not reach as far as the original claim.³³⁴ It does not follow, however, that the amended claim is so perfect in its description that no one could devise an equivalent. Language that replaces language is still imprecise.³³⁵ The narrowed amendment may demonstrate what the claim is not but still fail to capture precisely what the claim is.³³⁶ As a result, there is no more reason for holding the application to the literal terms of an amended claim than there is for abolishing the doctrine of equivalents altogether and holding every application to the claims literal meaning.³³⁷ After the Court's reasoning, the Court vacated the Federal Circuit's decision and remanded the case for proceedings consistent with the Court's opinion.³³⁸

4. *The Federal Circuit's 2003 Decision in Festo III*. Instead of simply deciding the case, the Federal Circuit met en banc and reconsidered the entire realm of prosecution history estoppel.³³⁹ The court first set forth the rule regarding analysis under prosecution history estoppel.

1. The court stated that the first step in the inquiry is to decide if the literal scope of the claim was narrowed through amendment.³⁴⁰
 - a. If the scope was not narrowed through amendment, then prosecution history estoppel does not apply.³⁴¹

³³² *Id.* at 740-41.

³³³ *Id.* at 741.

³³⁴ *Id.* at 740.

³³⁵ *Id.*

³³⁶ *Festo II*, 535 U.S. at 740.

³³⁷ *Id.* at 740-41.

³³⁸ *Id.* at 742.

³³⁹ *Festo III*, 344 F.3d at 1359; *see also* Clayton, *supra* note 215, at 19 (stating that the Federal Circuit met en banc to consider the full scope of prosecution history estoppel).

³⁴⁰ *Festo III*, 344 F.3d 13 at 1366 (citing *Pioneer Magnetics, Inc. v. Micro Linear Corp.*, 330 F.3d 1352, 1356, 66 U.S.P.Q.2d (BNA) 1859, 1863 (Fed. Cir. 2003)).

³⁴¹ *Id.*

- b. If the scope was narrowed through amendment, then the court must continue its inquiry by addressing a second step.³⁴²
2. If the amendment was narrowing, then the court must determine if the amendment was substantially related to patentability.³⁴³
 - a. If the prosecution history does not reveal whether the amendment was substantially related to patentability, then a substantially related reason is presumed subject to rebuttal; if the rebuttal is successful then prosecution history estoppel does not apply.³⁴⁴
 - i. Any evidence of rebuttal is limited to evidence revealed in the prosecution record.³⁴⁵
 - b. If the court finds a substantial reason related to patentability, then the court is required to continue by addressing a third step.³⁴⁶
3. Where a substantial reason related to patentability exists, the court presumes that all equivalents of the subject matter were surrendered subject to rebuttal.³⁴⁷
 - a. The presumption is rebutted where it can be demonstrated that a particular equivalent was not surrendered; in that case, prosecution history estoppel does not apply.³⁴⁸
 - i. The court stated that the patentee might demonstrate that the alleged equivalent would not have been foreseeable when the narrowing amendment was made.³⁴⁹
 - ii. The court stated that the patentee might show that only a tangential relationship existed between the

³⁴² *Id.*

³⁴³ *Id.* at 1367.

³⁴⁴ *Id.* (citations omitted). The court stated that it was reinstating its earlier opinion. *Id.*

³⁴⁵ *Festo III*, 344 F.3d at 1367 (citing *Pioneer Magnetics* and stating that only the prosecution history record may be considered in determining whether a patentee has overcome the presumption, so as not to undermine the public notice function served by the record).

³⁴⁶ *Festo III*, 344 F.3d at 1367.

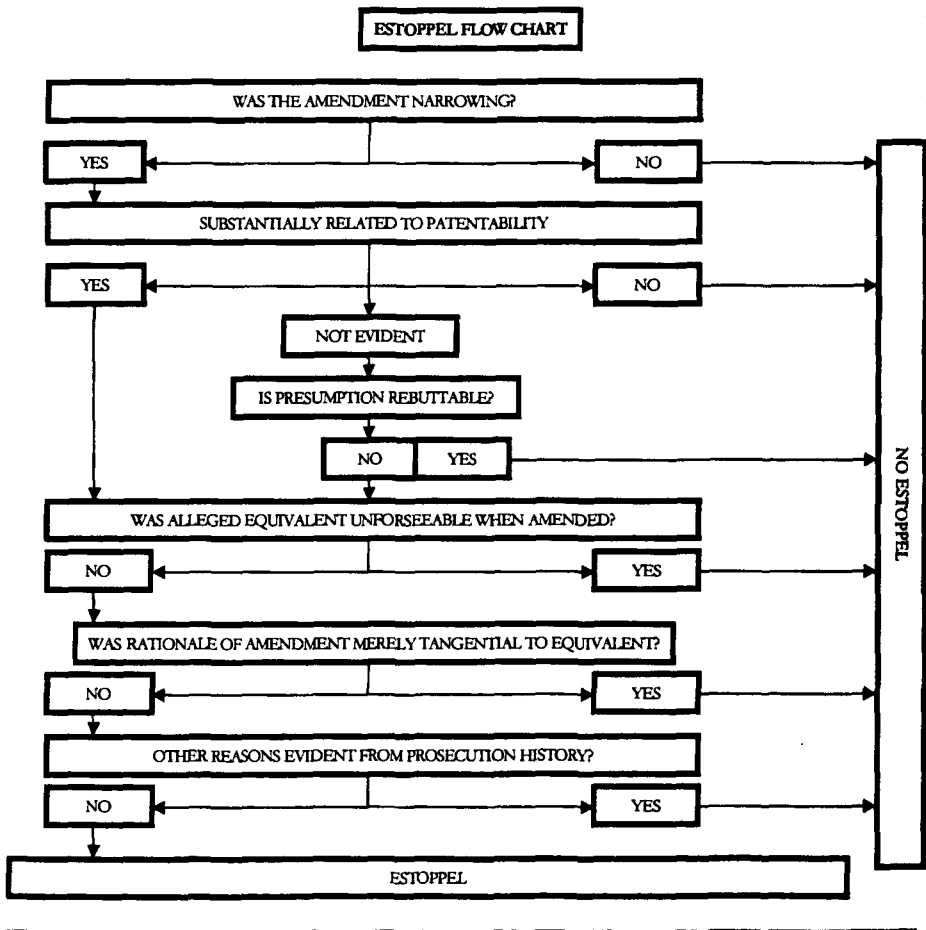
³⁴⁷ *Id.*

³⁴⁸ *Id.*

³⁴⁹ *Id.* at 1365.

narrowing amendment and the equivalent in question.³⁵⁰

- iii. The court stated that the patentee might demonstrate that some other reason exists that the patentee “could not reasonably have been expected to have described the alleged equivalent.”³⁵¹
- b. If the presumption is not successfully rebutted, prosecution history estoppel applies and reliance on the doctrine of equivalents is barred.³⁵²



³⁵⁰ *Id.*

³⁵¹ *Festo III*, 344 F.3d at 1368.

³⁵² *Id.* at 1367.

With regard to rebutting the presumption of complete surrender, the court acknowledged that the United States Supreme Court indicated that rebuttal exists where the patentee shows that “at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent.”³⁵³ The Federal Circuit then interpreted the Court’s examples of ways to rebut the presumption as only including (1) unforeseeability of the equivalent at the time of the amendment; (2) a tangential relationship between the equivalent in question and the amendment; and (3) other reasons suggesting that the alleged equivalent could not reasonably have been described.³⁵⁴

The Federal Circuit limited the “unforeseeability” rebuttal to two different categories.³⁵⁵ The court stated that in most circumstances where an equivalent portrays later-developed technology or technology not known in the relevant art, then the equivalent would have been unforeseeable.³⁵⁶ These two categories depend on factual issues such as the state of the art and the ordinary skill in the art when the amendment was made.³⁵⁷ The court indicated that expert testimony and extrinsic evidence is admissible in making this determination.³⁵⁸

With regard to the “tangential relationship” category, the court stated that the amendment cannot be directly relevant and must only be peripheral to the alleged equivalent.³⁵⁹ Amendments made to avoid the prior art are central to the allowance of the claim and are not considered tangential.³⁶⁰ In determining if an amendment was tangential, the court should only consider the prosecution history of the amendment.³⁶¹ In order to interpret the record, additional evidence should not be considered outside of testimony from those skilled in the art.³⁶²

³⁵³ *Id.* at 1365 (citations omitted).

³⁵⁴ *Id.*; see also Clayton, *supra* note 215, at 19 (stating that the Federal Circuit added its gloss on the Supreme Court’s decision by treating the examples of rebuttal as the only ways in which the presumption can be rebutted).

³⁵⁵ *Festo III*, 344 F.3d at 1369.

³⁵⁶ *Id.* The court gave the example of the transistor in relation to vacuum tubes, or Velcro® in relation to fasteners.

³⁵⁷ *Id.*

³⁵⁸ *Id.*

³⁵⁹ *Id.* (citing THE AMERICAN HERITAGE COLLEGE DICTIONARY 1385 (3d ed. 1997) (defining “tangential” as “[m]erely touching or slightly connected” or “[o]nly superficially relevant; divergent”); 2 THE NEW SHORTER OXFORD ENGLISH DICTIONARY 3215-16 (1993) (defining “tangential” as “merely touch[ing] a subject or matter; peripheral”).

³⁶⁰ *Festo III*, 344 F.3d at 1369.

³⁶¹ *Id.*

³⁶² *Id.*

The court continued by narrowly defining the “other reasons” category for rebuttal.³⁶³ The only example the court gave for this category is where a shortcoming of language exists.³⁶⁴ The court stated that this category should also be limited to evidence in the prosecution history.³⁶⁵

Circuit Judge Randall R. Rader concurred with the majority’s rule but wrote separately to set forth the dangers of judicially creating such a detailed rule to an exception to an exception of infringement.³⁶⁶ Judge Rader analogized that “[l]ike the proverbial balloon, a pinch on this backside of the law disrupts symmetry on the front side.”³⁶⁷ By pinching the doctrine of equivalents, the fundamental practice of patent acquisition is changed.³⁶⁸ Judge Rader opined that unintended consequences arise from the court’s stringent estoppel presumptions, in part, because every examiner at the Patent and Trademark Office is different.³⁶⁹ Some examiners attempt to narrow the claims as much as possible and other examiners are more lax.³⁷⁰ Therefore, Judge Rader reasoned that the application of prosecution history estoppel depends largely on the luck of the draw in the examiner pool.³⁷¹

Judge Rader continued his analysis by criticizing the precedent of prosecution history estoppel as moving at lightning speed.³⁷² Over the last ten years, the rules regarding prosecution history estoppel and the doctrine of equivalents have changed several times.³⁷³ The quick pace of the changes disrupts the notice function of the patent claims.³⁷⁴

With exception added to exception, and presumptions rebutted by still newer presumptions, a practitioner can scarcely predict the scope of claims years in the future, when they are likely to be

³⁶³ *Id.* The court stated that this category is used not to totally foreclose the patentee.

³⁶⁴ *Id.*

³⁶⁵ *Festo III*, 344 F.3d at 1370.

³⁶⁶ *Id.* at 1372-77 (Rader, J., concurring).

³⁶⁷ *Id.* at 1374.

³⁶⁸ *Id.*

³⁶⁹ *Id.* at 1376.

³⁷⁰ *Festo III*, 344 F.3d at 1375.

³⁷¹ *Id.* The scope of estoppel also depends on the number of patent filings. As a result of increased filings, explanations are rarely given for amendments. According to United States Patent and Trademark Office statistics, in 1950, about 67,000 applications were filed; in 1990, about 165,000 applications were filed; and in 2001, about 327,000 applications were filed. *Id.* at 1375 n.2.

³⁷² *Id.* at 1376 (Rader, J., concurring).

³⁷³ *Id.*

³⁷⁴ *Id.*

enforced, let alone the scope of claims drafted a few years ago when amendments did not potentially forfeit claim scope.³⁷⁵

Circuit Judge Pauline Newman, joined by Chief Judge Haldane Robert Mayer, concurred in part and dissented in part to the majority's opinion.³⁷⁶ In emphasizing the importance of the doctrine of equivalents and prosecution history estoppel, Judge Newman reasoned as follows:

Technology has come to dominate modern industry and culture, and patent principles have evolved as a primary economic incentive for innovation. Our strength as a nation is grounded in our technologic leadership and entrepreneurial energy, and in our competitive vigor. The proper balance among invention, innovation and competition is a matter of national concern. The doctrine of equivalents is part of that balance.³⁷⁷

The judicially created doctrine of equivalents was created to stop imitators from pirating inventions.³⁷⁸ The purpose of this doctrine was to broaden the scope of the patent claims.³⁷⁹ Patentees rarely plan to rely on protection outside the literal scope of the claims.³⁸⁰ That reliance usually only arises after the invention has had commercial success, and imitators attempt to reap the benefit by narrowly skirting the claims of the patent.³⁸¹ This doctrine attempts to align the precise balance between imitation and creativity.³⁸² The interests in this case reflect how a judge-made law shifts the balance between innovation and competition.³⁸³

By deciding that the rules of rebuttal are limited to three categories where the evidence must be found in the prosecution history, the majority reduced the protection afforded to inventors against copyists.³⁸⁴ Judge Newman emphasized that finding evidence to rebut the presumption in the prosecution history is a virtual impossibility because all three classes of rebuttal raise questions of fact that

³⁷⁵ *Festo III*, 344 F.3d at 1367.

³⁷⁶ *Id.* at 1377 (Newman, J., concurring in part and dissenting in part).

³⁷⁷ *Id.*

³⁷⁸ *Id.*

³⁷⁹ *Id.* at 1377-78. The doctrine of equivalents is supposed to make the claims less certain. The uncertainty is exchanged for the appropriate incentives to invent. *Id.* at 1378.

³⁸⁰ *Festo III*, 344 F.3d at 1379.

³⁸¹ *Id.*

³⁸² *Id.*

³⁸³ *Id.*

³⁸⁴ *Id.* at 1385.

require a full exploration of the issues.³⁸⁵ In conclusion, Judge Newman pointed out that the majority's determination reduces the incentive value of patents.³⁸⁶

C. FINDING THE FOREST AMONG THE DOCTRINE OF EQUIVALENTS AND PROSECUTION HISTORY ESTOPPEL

*"The most important thing is to keep the most important thing the most important thing."*³⁸⁷

The Patent Clause of the United States Constitution specifically gives Congress the power to promote the progress of science by granting inventors a limited monopoly in exchange for their discoveries.³⁸⁸ During its advent, this provision of the Constitution was impacted by the fears of piracy and the inequitable patent policy in England.³⁸⁹ The language of the Patent Clause was also influenced by the economic, deontological, and utilitarian justifications for the system. In this regard, the doctrine of equivalents and the doctrine of prosecution history estoppel ought to reflect the same intentions as the justifications from which they stem.

When the doctrine of prosecution history estoppel is limited to amendments that clearly concede the breadth of a claim, the interaction of the doctrine of equivalents and the doctrine of prosecution history estoppel uphold the underlying justifications for patent protection. Furthermore, as long as the doctrine of equivalents is confined to the equivalents of elements, the doctrine enables the intentions of the Constitution to remain true. In order for the doctrine of equivalents to function properly, it must be free from the formalistic constraints imposed by the Federal Circuit in *Festo III*.³⁹⁰ The doctrine of

³⁸⁵ *Festo III*, 344 F.3d at 1385.

³⁸⁶ *Id.*

³⁸⁷ DONALD P. CODUTO, FOUNDATION DESIGN PRINCIPLES AND PRACTICES 142 (1994). Here, the most important thing is the history that gave birth to the language in the Constitution.

³⁸⁸ U.S. CONST. art. I, § 8, cl. 8.

³⁸⁹ *Graham v. John Deere of Kansas City*, 383 U.S. 1, 5-6, 148 U.S.P.Q. (BNA) 459, 463 (1966).

³⁹⁰ *Festo III*, 344 F.3d at 1365. See Irah H. Donner, *Festo is Back! On Remand the Federal Circuit Answers Four More Questions?*, 86 J. PAT. & TRADEMARK OFF. SOC'Y 89, 99-100 (2004). The Federal Circuit has clouded the determination of an individual's patent rights. The Federal Circuit has put heavy constraints on the doctrine of equivalents by increasing the formalistic traps of the doctrine of prosecution history estoppel. These constraints have produced more questions than answers.

One issue that his most recent en banc decision raises is what test is to be applied to determine whether the *Festo III* presumption can be rebutted. It is whether the patentee could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalents, or are there three separate tests—unforseeability, tangential, and other reasons?

prosecution history estoppel works to keep the doctrine of equivalents from being abused. When implemented properly, the doctrine of prosecution history estoppel also helps to uphold the justifications for a patent system and balance the underlying economic policy with the inventor's rights to the invention. When confined by the formalistic expansive arms of the doctrine of prosecution history estoppel, however, the doctrine of equivalents is unable to adequately uphold societal benefits, economic benefits, and the rights of a patent holder.

When the doctrine of prosecution history estoppel is confined to amendments that clearly forfeit subject matter, it provides an incentive to invent. As stated in *Graver Tank* and *Warner-Jenkinson*, the doctrine of equivalents gives inventors a slightly expanded meaning to the words they use in patent claims. From a deontological standpoint, the inventor is given a slightly larger monopoly for the disclosure of the invention. This expanded meaning gives the inventor confidence that competitors who merely change an insignificant word in the patent claim will not be able to pirate the invention.³⁹¹ This piracy was one of the main concerns with adopting England's patent system.³⁹² The American system was structured so that inventors have confidence in the system, thereby making them more prone to invent and disclose under the system.³⁹³ This, in turn, provides a utilitarian benefit by injecting new or improved products into society.³⁹⁴

If the two doctrines did not mingle in this fashion, they would give competitors an incentive to pirate, and the inventor's property right in his invention would be reduced. As a result, the utilitarian aspects of the patent system would be reduced because inventors would be more prone to conceal

Should the fundamental test be whether the patentee could reasonably be expected to have drafted a claim that literally covered the now-accused device, and the three criteria merely used as factors in determining whether the fundamental test has been met?

According to the Majority's description of the interplay between the *Warner-Jenkinson* and *Festo [III]* presumptions, if the *Warner-Jenkinson* presumption applies, a patentee will not be able to rebut the *Festo [III]* presumption under the tangential or other reason criterion. Further, the Federal Circuit limited foreseeability at the time of the amendment. However, in view of *Festo's* argument that new matter issues may prevent some claim amendments from being foreseeable, should the test only be at the time of the amendment? The Supreme Court already indicated that the time of filing the application is a possibility which was rejected by the Federal Circuit. What about at the time of the invention?

Id.

³⁹¹ *Graver Tank*, 339 U.S. at 607.

³⁹² *See generally Graham*, 383 U.S. at 5-6.

³⁹³ CHISUM ET AL., *supra* note 2, at 54-55.

³⁹⁴ BENTHAM, *supra* note 13, § 7 p. 13.

discoveries and not release them to society. As the Supreme Court correctly pointed out in *Festo II*, prosecution history estoppel should not act as a complete bar of equivalents but only a bar of the material the inventor conceded.³⁹⁵ For this reason, courts ought to consider all factors and evidence surrounding an amendment to a claim. The courts should even consider whether other language was added to circumvent the prior art.

Reducing the court's formalistic expansion of prosecution history estoppel also gives the inventor an incentive to disclose under a utilitarian theory.³⁹⁶ When the inventor files the initial patent application, the inventor is given the equivalents of all the matter in the patent application. These equivalents remain until the inventor makes an amendment or argument that concedes the subject matter. If that amendment or argument is made, the doctrine of prosecution history estoppel takes over, and the inventor's rights to equivalents may be trumped by notice policy. In that situation, the inventor is held to the literal meaning of the word. Therefore, in the ideal situation, the inventor wants to obtain patent protection on the invention without amending the claims of the invention (this is rarely ever achieved and in many situations undesirable). The fear of losing the equivalents of elements gives the inventor an incentive to claim exactly what the inventor believes to be patentable at the onset. From a utilitarian standpoint though, the doctrine of equivalents should not be trumped by rigid formalistic procedural rules. Any evidence that the doctrine of equivalents applies should be heard by the court. Any other rule would chill inventors from making the disclosure clear to the public and thereby reduce the benefit to society.

When free of formalistic and rigid requirements, prosecution history estoppel gives investors an economic incentive to commercialize.³⁹⁷ The doctrine of equivalents gives words an interpretation beyond their literal meaning. Therefore, the monopoly rights given to those words are more expansive than a literal meaning of the words.³⁹⁸ From an economic standpoint, the existence of these equivalents makes a patent more valuable to the patent owner and to individuals who want to invest in the patented technology. Investors can be more confident that a competitor will not attempt to pirate the technology by changing an insignificant element of the invention.³⁹⁹ This, in turn, gives investors an incentive to invest money in the technology.

Because of the significant impact patents have on the economy, courts ought to consider all evidence when analyzing whether an element was conceded under

³⁹⁵ *Festo II*, 535 U.S. at 732.

³⁹⁶ Eisenberg, *supra* note 43, at 1028.

³⁹⁷ Rich, *supra* note 42, at 85.

³⁹⁸ *Festo II*, 535 U.S. at 732.

³⁹⁹ *Graver Tank*, 339 U.S. at 607.

prosecution history estoppel. By limiting the doctrine of equivalents and prosecution history estoppel to formalistic rules, competitors are more prone to find formalistic loopholes in the system and pirate inventions. In this regard, for purely economic reasons, competitors should not be allowed to pirate an invention by changing an insignificant term. That rule would reduce the incentives to the inventor without providing any benefit to the public.

When the expansive arms of the doctrine of prosecution history estoppel are reduced, the doctrine gives the public an incentive to design around prior inventions.⁴⁰⁰ This doctrine works to provide the public with a clearer fence line of what the inventor is claiming. This doctrine not only functions to tell the public what the inventor has claimed, but more importantly it also gives notice to clarify what the inventor has not claimed. By knowing what an inventor has not claimed, the public is given an incentive to utilize this unclaimed matter to design around and *make improvements* on prior inventions. From a utilitarian standpoint, these two doctrines function to assure competitors that they are not treading on claimed matter while not substantially diminishing the patent rights granted to an inventor. Yet, the utilitarian justifications for patent protection are substantially reduced when a competitor can make an insubstantial change and avoid an inventor's patent. The utilitarian aspect of providing society with an incentive to design around ought not outweigh the deontological incentives to the inventor. If the doctrine of prosecution history estoppel did not function in this manner, it would promote piracy of the inventor's discovery, and the overall incentives to society would be diminished. Inventors would refuse to disclose their discoveries, and society would not have base inventions to improve upon.

In light of the express language in the Patent Clause, the economic and philosophical justifications of the patent system, and legal precedent, equivalents should remain unless it is clear that subject matter was conceded to circumvent the prior art or obtain patentability. In determining whether the applicant has made such an amendment, all the evidence should be considered, including evidence that other language was added to circumvent the prior art. The court should also look at what the prior art teaches to ascertain the meaning and concessions of an amendment. An applicant should never be estopped from obtaining equivalents merely because an amendment was made to the claims, and the reason for the amendment was not set forth in the prosecution history. The intent of the amendment must always be considered because any other rule would promote piracy, and preventing that piracy was one of the very reasons motivating the drafting of America's first patent system.⁴⁰¹

⁴⁰⁰ CHISUM ET AL., *supra* note 2, at 75.

⁴⁰¹ *Graham*, 383 U.S. at 5-6.

V. CONCLUSION

The justifications for patent protection have developed from a rich, dense history.⁴⁰² Recent economic justifications for patent protection take into account the economic growth of the United States.⁴⁰³ This economic growth is largely attributed to the protection of ideas through patent protection.⁴⁰⁴ Moreover, traditional justifications for patent protection include deontological and utilitarian theory. Under deontological theory, an inventor has a natural or moral right to an invention regardless of the social consequences to society.⁴⁰⁵ Conversely, under utilitarian theory, property rights in ideas are necessary for the greatest benefit to society as a whole.⁴⁰⁶

As the United States patent system developed, these justifications for patent protection were used to fine-tune the system. In its advent, our patent system had its roots in English patent custom; however, the United States system evolved from this point because of the abusive practices in England.⁴⁰⁷ As Congress' Patent Acts developed to support the intent of the Constitution and the justifications for patent protection, the justifications were used to refine the United States patent system. In many situations, Congress deviated from these justifications. The current Patent Act, in contrast, attempts to uphold the intent of the Constitution and is economically and philosophically justified.

These justifications also have their roots in the various doctrines that have sprouted from the American patent system. Through the Court's decisions in *Graver Tank*, *Warner-Jenkinson*, and *Festo II*, the Court has attempted to use the doctrine of equivalents and the doctrine of prosecution history estoppel to justify the interpretation of patent claims. The Court uses the doctrine of equivalents to give inventors the equivalents to the meanings of words used to describe an invention. Deontologically, this doctrine slightly expands the rights given to the inventor in exchange for the inventor's disclosure. For utilitarian reasons, the Court has implemented the doctrine of prosecution history estoppel in order to preclude inventors from resurrecting subject matter and meanings to words that were conceded during prosecution. This doctrine gives greater weight to the literal meaning of words, and therefore, it increases the definiteness of the inventor's disclosure.

⁴⁰² See generally STOBBS, *supra* note 2, at 3-4; CHISUM ET AL., *supra* note 2, at 6-7.

⁴⁰³ CHISUM ET AL., *supra* note 2, at 59 (citations omitted).

⁴⁰⁴ *Id.*

⁴⁰⁵ *Id.* at 5.

⁴⁰⁶ *Id.*

⁴⁰⁷ See generally ADELMAN ET AL., *supra* note 14, at 9-17.

The courts have used the doctrine of equivalents and the doctrine of prosecution history estoppel as tools to interpret the language of patent claims. In interpreting language through these two doctrines, however, the courts ought to consider the history and justifications from which these doctrines stem. As Oliver Wendell Holmes has stated, “[t]he rational study of law is still to a large extent the study of history.”⁴⁰⁸ By looking at the history surrounding the drafting of the Patent Clause, it is evident that English patent custom, economics, utilitarian theory, and deontological theory had a substantial influence on the drafters’ intentions.

These historical justifications evidence the drafters’ concern with ensuring that the inventor had the proper incentives to disclose. In this regard, the courts ought to consider all factors surrounding an amendment to a claim. The mere fact that an amendment was made and the reasons not set forth in the prosecution history should never estop equivalents. The court should consider all the evidence, including any relevant prior art and concessions in other amendments. Any confinement of the doctrine of equivalents through prosecution history estoppel reduces the inventor’s incentive to disclose and shifts the economic balance of the patent system. That confinement puts the “inventor at the mercy of verbalism and would be subordinating substance to form.”⁴⁰⁹

Notwithstanding the myriad of legal considerations that contribute to the interpretation of words, perhaps this struggle with literalism is better simplified by a humbling look at the eighteenth century children’s author, Lewis Carroll, when he addressed the ambiguities of language by simply and concisely stating that “[t]he question is . . . which is to be master [the meaning of the word or the intentions of the speaker].”⁴¹⁰

⁴⁰⁸ Holmes, *supra* note 97, at 469.

⁴⁰⁹ *Graver Tank*, 339 U.S. at 607.

⁴¹⁰ LEWIS CARROLL, *ALICE’S ADVENTURES IN WONDERLAND & THROUGH THE LOOKING-GLASS* 186 (1960). Wars have been fought; lives have been destroyed; and fortunes have been lost all because of the meaning of words. In this regard, the pen truly is mightier than the sword. In the case of patent law, hundreds of millions of dollars frequently turn on the meaning of a single word. To more fully understand the destructive force the question of “who is the master” poses in politics, note the past controversy surrounding Trent Lott. Senator Lott claims his intentions are master, and his opponents claim that the literal meanings of his words are master. The truth, like everything else in this world, is entirely unascertainable, because the truth is skewed by human perception, emotion and recollection, including Senator Lott’s. Society will undoubtedly choose an answer to this question though, and the choice to this unremitting question will likely determine society’s perception on the integrity and aptitude of a man. Sadly, attorneys are not in the business of ever admitting that we simply do not know.