

**TEXAS UNDERGRADUATE LAW
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Inquiries should be addressed to:

judyhong93@gmail.com
(469) 835-5143

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TEXAS UNDERGRADUATE LAW REVIEW
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Software Patent Law: Patenting the Output Instead of the Invention

Aristotle Herbert

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I. Introduction

The early 21st century has been heralded by continuing advancement in computing technology. The emergence of smart phones and the expansion of mobile software have revolutionized the world. Simultaneously, however, an explosion of legal disputes has accompanied these technological improvements over the intellectual property associated with the technological advancements. The surge in software patent lawsuits has been colloquially referred to as the software patent wars.

Software patents are being granted in the United States for the output of software inventions rather than the inventions themselves. Software output refers to the portion of the software that users interact with rather than the programmed code that produces the software that users interact with. Google's search engine website and interface is an example of software output, whereas the programs and algorithms that run Google's search engine are software inventions. As a result of the patent code's focus on software output, the United States has witnessed an explosion of software patent lawsuits that has burdened the federal courts, the economy, and technological advancement. The patent system's focus on software output has been aided by the incorporation of functional claiming in patent applications and poor claim clarity.

Functional claiming is a manner of describing the scope of an invention in terms of the function that the invention serves. For instance, using functional claiming to describe a refrigerator would include explaining that the refrigerator keeps its contents cold. Claim clarity is a term that refers to the extent that the terms and definitions provided in patent application's claims are specific and explicit. Poor claim clarity describes descriptive terms that are vague and broad. An example of poor claim clarity would be describing a skateboard merely as a mode of transportation, which – despite being accurate – obscures the precise and idiosyncratic nature of a skateboard.

This paper surveys the history and origins of patents in order to establish a theoretical underpinning

from which to examine the conditions that have led to the software patent wars. That theoretical underpinning is used to assess in what manner software ought to be eligible for patent protection. This paper catalogues the facets of patent code that have facilitated the patentability of software output.

II. Theory & History of Patents

Patents, reduced to their fundamental essence, are legal monopolies granted to an individual by a sovereign state, a practice stretching far back into civilized history. In fact, the precursor to patents originated in ancient Greece in the third century B.C. Gregory Stobbs, in *Software Patents*, points out that “the Greek historian Phylarcos tells us that the Greek city Sybaris granted a patent for an article of cuisine [...]”¹ Patent law derives itself from natural law, which is the foundation of modern law set forth in works by those such as Aristotle and John Locke. In “Of Property” in *The Second Treatise of Government*, John Locke asserts that while property in one’s person and in one’s own labor are intrinsic to the nature of life, how a person may come to have property in any one thing is facilitated by methods of appropriation and is, as such, not immediately apparent. Locke proffers that it is incontestable that an individual who gathers apples from a tree has appropriated them as his or her property; yet the precise point at which the apples transform from a property held in common to the property of the individual is Locke’s true coup de grâce. Locke argues that it is the very gathering of those apples that appropriates them as individual property, or in other words it is “labour [that] puts a distinction between [the apples] and common.”²

Locke goes on to assert, however, that this process of appropriation cannot be abused so that an individual may hoard all common resources for private property, but rather, the process is dependent on the consent of society. Though a number of natural law theorists argued that the law of property needs no

¹ Gregory Stobbs, *Software Patents* 1-4 (2012).

² John Locke, *Two Treatises of Government* 62:S.28 (Richard A. Epstein ed., Garland Publishing, Inc.) (2000).

justification, the application of labor to property yields benefits that benefit society and justify property.³

If the farmer was not able to own his land, he would have no incentive to work the land and produce the vegetables that he both consumes and sells for public consumption. Property, therefore, creates Pareto improvements to the economy so long as that property may be used in a productive manner. Pareto improvements represent a net and per capita economic benefit whereby every individual is improved. For instance, it confers no societal advantage to own air; hence, air would fail Locke's standards for what may properly be owned. Allowing individuals to appropriate certain things creates the incentive for profit that drives individuals to direct their labor towards that property. The products of property create a net gain for society because the products would not otherwise be as available for trade.

A naturally occurring collective action problem developed, however: once a new innovation was introduced, others in society would replicate the invention, thereby reaping the same rewards without having put forth the efforts necessary to arrive at the technology. The incentive to innovate began to decline as those who poured their efforts into discovering, importing, or creating new technologies often saw diminished profit for their labor. This phenomenon is reminiscent of the dilemma that William Blackstone addressed, in reference to physical property, by asking who would go to the pains of tilling farmland if another may seize the product of his labor.⁴

The phenomenon of losing income from innovations to those who copy the innovation became apparent not only to the Greeks, but also to the English. From the tenth century A.D., the Crown granted "thane" titles to travelers who imported new technologies to England, however, this incentive eventually proved too little.⁵ The Crown first granted legal monopolies in 1236 when Henry III issued "letters patent" to declare a 15-year monopoly granted to Bonafusus de Sancta Columba and his associates for making various colored fabrics.⁵ In 1326, the Crown began granting monopolies to individuals willing to import

³ Id. at 60: S.26-71: S.42

⁴ William Blackstone, *Commentaries of the Laws of England*, 167:7 (Richard A. Epstein ed., Garland Publishing, Inc.) (2000).

⁵ Bruce Bugbee, *Genesis of American Patent and Copyright Law* 14 (1967)

new goods to England in order to create an incentive, establishing the origins of intellectual property, as it exists today.⁶

Intellectual property is similar to natural law property in that, like the appropriation of physical property, it is justified by general societal consent due to the Pareto benefits bestowed upon society. Namely, intellectual property secures for inventors the rewards of their labor, and in so doing, ensures that inventors will continue to find such endeavors worthwhile. The key distinction is that intellectual property is not acquired through individual appropriation alone, but rather, through the direct allotment of monopoly to the individual by the state. Furthermore, intellectual property is different in that it secures rights not to a tangible object, but rather, establishes exclusive rights to a design or abstraction. It was not until 1440 that the Crown began granting monopolies on the importation of processes when John of Shiedame received a patent for a process for manufacturing salt that he had imported from abroad.⁸

The first instance of a patent granted for an invention did not occur, however, until 1565 when, after six years of petitioning, Queen Elizabeth I issued Giacompo Acontio, an Italian, a patent for a new kind of furnace and wheel machine he had invented.⁸ Acontio's patent was the catalyst for the English policy of invention patents that ultimately influenced the American patent system, and his argument for a patent was particularly remarkable in that it established the fundamental principles for the protection of intellectual property. Acontio asserted that those who invent technologies useful to the general public abandon other modes of gain in that pursuit and, as such, should enjoy the fruits of their labor in order that they and others may continue to seek out advancements for the public welfare.⁷

Upon the founding of the United States of America, an understanding of the fundamental needs for a patent system was made clear by its inclusion in the Constitution as an express power of Congress.⁷ While it is true that James Madison, Thomas Jefferson, and other Founders feared the potential for abuse of patent law (and perhaps rightly so), at least Madison recognized an intrinsic value in appropriately

⁶ See Stobbs, supra note 1 at 1-4.

⁷ U.S. Const. art. III, § 8, cl. 8.

granting patents.⁸ Nearly one year after the adoption of the Constitution, the United States passed the Patent Act of 1790, delegating the power to grant patents to a patent agency that would examine patent requests before granting or rejecting the requests.⁹ In order to simplify the patent system and provide a chance for a patent jurisprudence to develop, the United States patent system was revised into a registration system with judicial review in the Patent Act of 1793.¹⁰ This new patent system proved catastrophic for the court system, clogging the system with conflicting patents, excessive litigation, fraud, and extortion.¹⁰

The failures of the 1793 Act gave rise to the Patent Act of 1836, which saw the return to an examination system, created the Patent Office,³ and established the Commissioner of Patents as head of the Patent Office.¹⁰ The Commissioner of Patents handled all patent applications, granting patents to those considered eligible, with rejections appealed to a special board appointed by the Secretary of State.¹⁰ Patents had a set term of 14 years (though patent holders could apply for a seven year extension); and even though the system underwent several adjustments, the patent system put in place by the 1836 Act remained until the mid-20th century.¹⁰

The Patent Act of 1952 was notable for several reasons. Among them was the formal codification of nonobviousness: the extent to which an innovation is particularly inventive enough to be patented.¹¹ Filings for patents for computer programs began to rise, and President Johnson in 1965 commissioned an analysis of the patent system, which resulted in a recommendation by the Commission against allowing programs to be patent eligible. The argument against allowing programs to be patented focused on the difficulty in classifying innovations as passing nonobviousness standards due to the fact that all new software programs were contributing to prior art – all information, relating to an innovation, that is

⁸ The Federalist No. 43 (James Madison).

⁹ See Stobbs, *supra* note 1 at 1-15 and 1-18.

¹⁰ *Id.* at 1-26.

¹¹ *Nonobviousness*, Cornell University: Legal Information Institute, <<http://www.law.cornell.edu/wex/nonobviousness>>

publicly available.¹² Ultimately, this argument proved-uncompelling, and the Commission’s recommendations were almost entirely ignored.

The 1952 Act is more significant, however, for its definition of patent eligibility, also known as patentability. Title 35 of §101 of United State Code defines patent eligible inventions as “process[es] machine[s], manufacture[s], or composition[s] of matter” that are new and useful.¹³ This definition was broad enough that it required judges to determine how this standard applies to new inventions in emerging technologies. The courts began by excluding natural laws, mathematical formulae, and scientific phenomena from patentability. Initially, in such 1970’s Supreme Court cases as *Gottschalk v. Benson*¹⁴ and *Parker v. Flook*,¹⁴ the Court held that the software of the time was akin to mathematical formulae and, therefore, ineligible for patents. In *Diamond v. Diehr*¹⁴ the Supreme Court began its shift by holding that inventions could not be denied patents merely because their processes contained mathematical formulae; and the Court of Appeals for the Federal Circuit, in an en banc decision in *In re Alappat*,¹⁴ held that rejecting software patent applications “under 35 USC §101, simply because a computer algorithm was present,” was illegal.¹⁴ By 1998, the only remaining software exclusions regarding patentability (pure mathematical algorithms and business methods) were discarded by the Supreme Court in *State Street Bank & Trust Company v. Signature Financial Group*.¹⁵

The problems with software patents in the United States today were set in motion by the release of the original Apple iPhone in 2007. The iPhone was revolutionary not only in that it was operated almost entirely through touchscreen interaction, but also, was unique in its particular manifestations of touchscreen technology including such capabilities as “pinch-to-zoom” and “slide-to-unlock.” What is commonly referred to as the Smartphone Wars (and sometimes, the Digital Wars) was sparked by HTC’s 2010 release of a smart phone running Google’s Android software that featured “pinch-to-zoom”

¹² *Prior Art*, Cornell University: Legal Information Institute, <http://www.law.cornell.edu/wex/prior_art>

¹³ 35 U.S.C. § 101.

¹⁴ See Stobbs, *supra* note 1 at 1-38.

¹⁵ Michael Guntersdorfer, *Software Patent Law: United States and Europe Compared* (2003).

capabilities. Steve Jobs was furious, and Apple soon filed Suit against HTC as well as a number of other Google Android phone manufacturers.¹⁶ As companies like Samsung and Microsoft emerged as the dominant challengers to Apple, major companies became embroiled in a web of related lawsuits over phone technology.

Of the negative consequences these patent wars have inflicted, the patent backlog plaguing the US Patent and Trademark Office (USPTO) is one of the most publicized. As Edward Wyatt pointed out, the rate of patents pending per patents issued soared from 2.25 in 1997 to 6.6 in 2008.¹⁷ In 2013, the USPTO website reports that there are nearly 600,000 unexamined patent applications, which is down from over 700,000 in 2009. Former Director of the USPTO David Kappos was appointed to his post in 2009 to deal with the backlog dilemma, and he set out to establish limits on the number of patents a company could file, though he failed to do so.¹⁸

In light of slow progress toward eliminating the patent backlog, Congress passed and President Obama signed into law the America Invents Act of 2011,¹⁹ which featured a shift in the United States patent code standard for determining the rightful owner of a patent in a dispute. Originally, the United States operated under a “first-to-invent” standard, under which the party who was able to demonstrate having invented the creation first would be recognized as the rightful owner of the invention. The America Invents Act changed the patent code to a “first-to-file” standard, under which the party who first filed for a patent is recognized as the rightful owner in patent disputes.¹⁹ This redefinition of the patent code falls in line with the systems of the major European countries; and the theory behind the redefinition is that adopting a “first-to-file” standard would expedite patent disputes and consequently reduce the patent backlog.

¹⁶ Charles Arthur, *Digital Wars: Apple, Google, Microsoft & the Battle for the Internet* 205-211 (2012).

¹⁷ Edward Wyatt, *Fighting Backlog in Patents, Senate Approves Overhaul*, N.Y. Times, Sept. 5, 2011.

¹⁸ Ashby Jones, *Patent Chief to Step Down From Agency He Revamped*, Wall St. J., Nov. 26, 2012.

¹⁹ Office of the Press Secretary of The White House, *President Obama Signs America Invents Act* (Sept. 16, 2011) <http://www.whitehouse.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim>.

During his February 2013 resignation, David Kappos noted that since his tenure began in 2009, he had largely accomplished his goal of minimizing the backlog of patents by establishing policy that would achieve their goals in the long term.²⁰ However, a new study by Chris Cotropia, Cecil Quillen, and Ogden Webster suggest otherwise. They collected data on patents filed since 1966 through a Freedom of Information Act request, and their analysis shows that the USPTO's reported patent approval rates are far lower than the actual approval rate. Correcting for all re-filed continuing applications, the data shows that the patent approval ratings rose under Kappos' watch from just under 70% to nearly 90%.²¹ These findings suggest that Kappos' solution will exacerbate the problem by passing the dilemma to the court system. A slew of purportedly improperly granted patents could kindle lawsuits and disputes in the future, and in so doing, augment the never-ending series of patent lawsuits.

The patent wars have also had negative consequences on technological advancement. The effects of scientific progress on a society was well expressed by Almarin Phillip when he held that "progressing science[s] ... operate[s] on markets in ways such that some firms tend to become larger, more profitable, and more technologically progressive while others experience increasing difficulties in remaining viable."²⁰ This paradigm holds true today as in the midst of the meteoric rises of Apple, Google, and Samsung in the smart phone realm, competitors like Nokia and RIM have faded out of the forefront. Though this phenomenon is natural, the major firms that have taken the spotlight have attempted to solidify their position in the industry by accumulating patents with which to launch lawsuits against other firms. As of a 2012 report by UBM Tech Insights, Apple holds as many as 15,500 patents, of which about 8,500 are United States patents.²¹ This trend toward patent acquisition has not been a minor role in tech giants' business strategies, either; Charles Duhigg reported that in 2011, both Apple and Microsoft, for the first time ever, spent less money on research and development than they did on acquiring patents and

²⁰ Almarin Phillips, *Patents, Potential Competition, and Technical Progress*, 56 *The American Economic Review* 301-310 (1966).

²¹ Dylan McGrath, *Report Details Apple's Patent Holdings*, *EE Times*, Feb. 29, 2012.

filing lawsuits.²²

The effects of the patent wars are not isolated to the companies acquiring the patents. Michael Bessen and James Meurer astutely point out a number of broad effects of the patent wars. Firstly, patent acquisition en masse has created a disincentive for innovation in large public firms, where the risk of infringing on a patent drives down the incentive for funding development. The annual number of patent lawsuits filed has risen from about 900 per year in 1984 to roughly 3,000 per year in 2006.²³ Additionally, the patent wars have incurred a great toll on companies who are sued. The probability that a granted patent will be involved in a lawsuit within four years of its issue date has more than doubled from 1985 to 2000, rising from 0.4% to about 0.9%.²⁴ Bessen and Meurer's findings indicate that, on average, infringers and patentees lose a combined 1% of firm value per patent lawsuit. Furthermore, as of 2007 the mean monetary loss in firm value of the infringer is \$28.7 million USD and the median loss is \$2.9 million USD.²⁵

The cost of the patent wars is also keenly felt by those small, innovative firms subjected to the attacks of patent trolls, also known as Non-Practicing Entities (or NPEs). Patent trolls are companies whose main income is derived from patent filings and litigation, who filed the majority of all patent infringement lawsuits in 2012; in 2007, patent trolls filed 24% of all patent infringement lawsuits, whereas 56% of those filed in 2012 were accounted to patent trolls.²⁶ The American Intellectual Property Law Association calculates that the median cost for defending against a patent lawsuit in 2011 was \$650,000 when less than \$1 million was at risk; \$2.5 million when \$1 million to \$25 million was at risk;

²² Charles Duhigg, *The Patent, Used as a Sword*, N.Y. Times, Oct. 7, 2012.

²³ James Bessen & Michael Meurer, *Patent Failure: How Judges, Bureaucrats and Lawyers Put Innovators at Risk* 120-122 (2009)

²⁴ Bessen and Meurer *supra* note 40 at 129.

²⁵ *Id.* at 137.

²⁶ *Lex Machina Releases 'The AIA 500 Expanded'*, Lex Machina, Apr. 9, 2013, <https://lexmachina.com/2013/04/09/lex-machina-releases-the-aia-500-expanded/>.

and \$5 million when more than \$25 million was at risk.²⁷ In 2011, total U.S. litigation costs in suits involving patent trolls were calculated at nearly \$30 billion USD.²⁸ The costs associated with defending against patent lawsuits create a major disadvantage for innovations created by small firms.

Furthermore, the financial risks involving lawsuits against smaller innovations are disproportionately greater than those against larger innovations. Michael Phillips, the creator of the software underlying Apple's Siri program, was contacted by Paul Ricci of a company called Nuance with the message that if Phillips did not agree to sell his company, Nuance had enough patents to prevent Phillips from competing in the market. After the first of six filed lawsuits and \$3 million in legal fees, Phillips agreed to sell his company, which was eventually passed on to another company named SRI that sold the technology to Apple.²⁸ Forcing acquisitions with the threat of lawsuits has become business-as-usual in the software startup world. Successful start-ups expect to be threatened with lawsuits and then offered an acquisition deal. As such, most start-ups now steer clear of patents and patent lawsuits if at all possible. A 2005 Mann and Sager study showed that "only 24 percent [of start-ups] had obtained any patents at all within five years of receiving financing."²⁹ Patents in the software field no longer serve the purpose of stimulating innovation; the reason that software patents do not drive progress is that patents are being granted for concepts rather than the actual software behind the concepts.

The software patent wars, along with the negative consequences associated with it, can be attributed to the United States patent systems' emphasis on software output rather than the inventions that run the software.

I. The Causal Factors

The federal jurisprudence on software patent eligibility is largely responsible for the patent

²⁷ Jim Kerstetter, *How Much Is that Lawsuit Going to Cost You?*, CNet, (Apr. 5, 2012), http://news.cnet.com/8301-32973_3-57409792-296/how-much-is-that-patent-lawsuit-going-to-cost-you/.

²⁸ See Duhigg *supra* note 39.

²⁹ Bessen and Meurer *supra* note at 175

system's emphasis on output rather than programming code. *Benson*³⁰ was the first of a series of federal court cases that shaped the jurisprudence to that end. Specifically, *Benson* involved engineers Gary Benson and Arthur Tabbot who invented a better mathematical procedure for translating normal decimal-type number into binary for better computer processing. Benson and Tabbot filed for a patent, but the examiner rejected their application; so Benson and Tabbot sued, winning in the Court of Customs and Patent Appeals and then reaching the Supreme Court, where the Court ruled that neither computer programs nor mathematical procedures are patentable.³⁰ Justice Douglas, delivering the opinion of the Court, reasoned that granting a patent for a mathematical equation is essentially giving a patent for a mathematical procedure,³⁰ which would be analogous to the patents on textiles granted by the English Crown as royal favors.³¹

This reasoning is erroneous, however, because it confounds mathematical equations with mathematical procedures. Mathematical procedures surely ought not be patentable as they are akin to the words of a language. Mathematical procedures can be used in combination with mathematical variables in unique and innovative ways for creative and new purposes, as can language be used to combine words to create new works and expressions. Hence, dismissing software as intrinsically antithetical to patent eligibility is inappropriate. Fiction authors are able to seek copyright protection for their creations, and software engineers ought to continue to be able to seek protection for their creations. Software patent eligibility ought to rest on the merits of software inventions.

While *Benson*'s decision that computer programs are inherently patent ineligible was overruled, the manner in which *Benson* characterized computer programs has remained influential. *Flook*³² was the next Supreme Court case that affected software patent law, and Justice Stevens delivered the Court's opinion. The patent applicant had requested a patent on a new method to update alarm limits in catalytic converters for oil refineries. The Court held that the new method did not qualify for a patent since it included no

³⁰ *Id.*

³¹ See Stobbs *supra* note 1 at 1-8.

³² See *Flook supra* note 24.

patentable invention; referring back to *Benson*, the Court asserted that in order for such a method to be patentable, the non-mathematical components must be novel and nonobvious, since the mathematical procedures themselves fall under prior art, a legal term for existing technology and publications that are publicly available more than one year before the patent application filing.³⁴

The tide began to turn, however, when *Diehr*³³ was heard by the Supreme Court, in which Rehnquist, writing for the majority, ruled machines that physically transform materials using programmable software are patent eligible.³⁴ While this case laid the foundation for software and programs themselves to be patentable, it continued to characterize software as general mathematical procedures rather than innovative creations using the mathematical language. *In re Alappat*³⁵ reinforced *Diehr* and took the next step forward, where the en banc panel held that just because the patent claims covered a general purpose software program does not mean that a machine that uses software is itself not patentable.³⁶ The majority held in favor of granting such patents,³⁷ but they, too, did not place emphasis on the creative nature of software programs. The software patent federal cases culminated in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, where Judge Rich of the United States Court of Appeals for the Federal Circuit held that the transformation of data through mathematical algorithms or calculations is patent eligible because it produces a useful and tangible outcome.³⁸ While *State Street Bank* finally gave patent eligibility to software, it did so on poor grounds. *State Street Bank* justified software as patent eligible because of software's outcome, a justification that naturally led to the patent system's emphasis in software output. Functional claiming and poor claim clarity necessarily crept into software patent application claims.

Mark Lemley, the William H. Neukom Professor of Law at Stanford Law School, points out that

³³ See *Diehr supra* note 25.

³⁴ *Id.*

³⁵ See *In re Alappat supra* note 26.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (1998).

this sort of dilemma reared its head once before in the 1940s, when the Supreme Court rejected patentees' assertions of owning not a particular machine or process, but instead, the goal itself.³⁹ Functional claiming defines an invention by the function that the invention serves, and the origin of functional claiming begins with the 1940s Wright brothers' patent for a cable system to bend an airplane's wings while controlling a rear rudder. Their invention was revolutionary, but their patent, Lemley reveals, was invidious. The patent was written entirely in functional language, merely describing their invention as a mechanism that results in parts of an airplane wing being moved into different angles. When subsequent inventor Glenn Curtiss created ailerons, the Wright brothers filed suit and won. About 20 years later, the Supreme Court held this type of claiming invalid in *Halliburton Oil Well Cementing Co. v. Walker*,⁴⁰ but patent lawyers upset at the ruling convinced Congress to legislate a compromise. The Patent Act of 1952⁴¹ allowed the patentees to submit the functional claims of their innovation with the contingency that the patent would not cover the goal itself. This new standard, referred to as means-plus-function claims, allowed patentees to describe their invention in part with the use of functional language.⁴² The function portion of the means-plus-function standard has now taken over in software patent claims as evidenced by an example Lemley points to, Cybersource Corporation's claim 2 in U.S. Patent No. 6,029,154 for:

[a] computer readable medium containing program instructions for detecting a fraud in a credit card transaction between a consumer and a merchant over the Internet, wherein execution of the program instructions by one or more processes of a computer system causes the one or more processes to carry out the steps[...].⁴⁴

Cybersource's claim would make an adequate explanation for an Internet article, but the claim's scope is far too broad for the basis of a legal monopoly. The functionality present in Cybersource's claim obscures the true nature of the invention that a patent is being sought for.

An appropriate patent claim would focus, instead, on the means by which an output was achieved.

³⁹ Mark Lemley, *Software Patents and the Return of Functional Claiming* (2012).

⁴⁰ *Halliburton Oil Well Cementing Co. v. Walker* 329 U.S. 1 (1946).

⁴¹ Patent Act of 1952, 35 U.S.C. § 271 (1952).

⁴² See Lemley *supra* note 61.

In the example of Cybersource's claim, a more appropriate claim would entail a step-by-step verbal and mathematical explanation of the algorithms and code created to detect fraud in credit card transactions; and the patent application wouldn't be for "a computer readable medium containing programmed instructions", but it would be an application for a patent on the computer program that is composed of the algorithms that were explicitly and mathematically defined.

The return of functional claiming is not the only problem with software patents. Another major problem that has contributed to patenting the output of software has been generally poor claim clarity. Not only are the claims made in software patent applications functional, but also, the terms of those claims are unclear. Professor Peter Menell of the University of California, Berkeley asserts two reasons for why software patent claims have become not only functional, but also vague: (1) software inventions are often inherently vague or abstract; and (2) the USPTO fails to place enough effort towards ensuring that patent claims are clearly delineated.⁴³

Any inherent vagueness of software inventions were court imposed, however. *In re Bilski*⁴⁴ and the appeal heard by the Supreme Court, *Bilski v. Kappos*,⁴⁵ represent the most recent precedent regarding software patent law. Both the Court of Appeals for the Federal Circuit and Supreme Court upheld the use of the machine-or-transformation test (which was used in *Benson*, *Flook* and *Diehr*) and specified that the test does not preclude business methods. The problem with this ruling, however, is its reliance on a test that fundamentally falls short of addressing software claim scope. As Lemley and others reveal, the machine-or-transformation test "fails to identify why the claims in *Benson* and *Flook* should be unpatentable when both are unambiguously performed by a machine."⁴⁶

In *In re Bilski*, the Court asserted that software processes are inherently broad and vague (though

⁴³ Peter Menell, Santa Clara Law Conference: Promoting Patent Claim Clarity (Nov. 2011).

⁴⁴ *Bilski v. Kappos*, 130 S.Ct. 3218 (2010).

⁴⁵ *In re Bilski*, 545 F.3d 943 (2008).

⁴⁶ See Lemley *supra* note 61.

not necessarily pure abstracts)⁴⁷ when there was no need to. If Menell was referring to the Court imposed vagueness, then the easy remedy would be to reverse the reasoning of *Bilski* and replace the machine-or-transformation test with a reemphasis on the means portion of the means-plus-function standard.

If it is assumed that the first of Menell's reasons refers to the characteristics of software; however, Menell's assertion of software's intrinsic equivocality is readily discarded. While software inventions can be described in vague terms, the inventions themselves are algorithms and programmed code. Though explaining such inventions likely requires the use of esoteric and technical description that may seem inherently vague to the average person, pharmaceutical inventions are subject to the same constraint. In order to ensure that patent agents are capable of understanding highly technical claims, patent agents and examiners are required to hold a 4-year science or engineering degree in the field for which they will be reviewing patents. Furthermore, patent examiners undergo additional formal training prior to beginning work as a patent examiner.⁴⁸

On the other hand, if it is assumed that Menell is referring to the inherent difficulty in classifying software into categories, then his argument deserves more careful consideration. An argument regarding the categorization of software inventions resembles the argument made by Christina Mulligan in her paper "Scaling the Patent System."⁴⁹ Mulligan compares the patent system to the famous 1945 Friedrich Hayek essay, "The Use of Knowledge in Society," in which Hayek argues that central economic planning is theoretically defective in part due to economists' failure to recognize that economic actors lack omniscience and are, therefore, incapable of acquiring all useful information in order to make decisions.⁵⁰ Mulligan holds that, similarly, legal scholars and policy makers fail to recognize that it is not practical or feasible for every actor in the software world to be cognizant of every patent. Mulligan shows through

⁴⁷ See *Bilski supra* note 69.

⁴⁸ *Patent Examiner Positions*, United States Patent and Trademark Office, <http://careers.uspto.gov/Pages/PEPositions/fitcheck.aspx>.

⁴⁹ Christina Mulligan and Timothy B. Lee, *Scaling the Patent System*, N.Y.U. Annual Survey of American Law, Forthcoming (2012).

⁵⁰ *Id.* at 2-4.

Big-O notation, a mathematical approximation tool popularly used by software engineers, that the effort involved in being aware of every patent grows exponentially such that if there were only 3,000 software firms and each had only one patent, it would take roughly one billion aggregate hours of legal work for every firm to be aware of every patent.⁵¹

It must be considered whether a means-plus-function patent that does indeed properly define if the means portion of its claim is bound to the function it is associated with. For instance, it must be questioned whether or not the patents protecting Siri's technology only protect it while in association with cross-media search results. For example, does a patent for software designed to run a search engine protect that software from being adapted by outsiders for another purpose? Or in other words, what's the true scope of a patent claim? There is no easy answer. The USPTO Inventors Assistance Center (IAC) asserts that it depends on the claims that are made by the patentee in the patent application.⁵² Under a system where functional claiming reigns supreme, a limited scope is acceptable because what is really being patented is the concept rather than the software solution. The patentee may theoretically file patents for every imaginable concept without regards to the specific algorithms and code that would power it.

If functional claiming were to be eliminated as a basis for granting patents, the return to means patenting would generally drive patentees to seek the broadest protection possible. Therefore, while functional claiming could still be present in patent claims, patentees would strive not to limit the patent to that function in order to gain a broader protection. In so doing, patentees would necessarily employ language that is more vague, which would blur the once clear lines separating software sub classifications such as "search engines," "natural language software" and "cyber security." Blurred classifications would require software firms to be cognizant of the patent protected algorithms and code used across the entire range of software inventions, which would confirm Menell's assertion that software inventions are inherently vague as the inventions themselves could span a number of subcategories of software.

⁵¹ Id.

⁵² Interview with Robert L. O'Block of USPTO Inventors Assistance Center (May 6,2013).

Christina Mulligan's concern regarding the feasibility for firms to be aware of the entirety of software patents would once again crop up; however, it is unlikely that a means-based patent system would result in the number of conflicts that Mulligan asserts would occur under the current system. The amount of patent eligible software would be drastically reduced since patent applications would be considered on the inventiveness of the means rather than that of the output. Consequently, patent conflicts would be fewer in number, and conflicts that result in lawsuits would be deserving of attention.

It might seem that, nonetheless, poor claim clarity would only become exacerbated in a patent system that emphasized software algorithms and code as patentees would struggle to minimize any limitations to a patent's protection across functional uses of a software invention. Patentees would likely attempt to broaden the scope of the functional uses to the utmost extent, however, doing so would not obscure the technical nature of the invention. The invention's characteristics would not be obscured by functional claims, and as a result, the functional claims would only serve as integral and binding facets of patent claims when they actually are. For instance, software that is specifically designed for recognizing speech patterns would be tied to the functional aspects, whereas software that identifies and solves bugs could be applied to a number of mediums. Hence, poor claim clarity would be a nonissue given that the only ambiguity regarding the invention would be the manners in which it could be used if the invention is capable of being applied to different problems.

Since a patent system that focused on the software program rather than the software output would greatly reduce the number of software patents that are granted, the arsenal of available patents with which to fight the patent war would diminish. Thus, the software patent wars would die down since software firms would no longer be rewarded for bickering over concepts that are replicated. While the concept of Siri would no longer be patent eligible, the programming behind it might very well be. The software behind Summly, an app that summarizes key and relevant facts from articles into brief blurbs, would also

be an example of something likely to be patent eligible.⁵³ Returning to patenting software inventions rather than output would force software firms to return to creating and distributing new products, while only focusing on patenting those truly innovative software inventions that were the result of significant research and development.

IV. Conclusion

One must ultimately return to James Madison and Article I Section 8 of the United States Constitution: “The Congress shall have the power [...] [t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive rights to their writings and discoveries[.]”⁵⁴

The question arises from this clause within the Constitution as to whether or not such abstract patents for concepts of software creations do indeed “promote the progress of science and useful arts.” In the realm of software patents, inventors are being granted exclusive rights; not rights to their discoveries, but rather, to their fantasies and musings.

There are some new legislative efforts aimed at fixing the software patent code such as the SHIELD (Saving High-tech Innovators from Egregious Legal Disputes) Act; but the SHIELD Act is particularly aimed at structural problems in the patent system that enable patent trolls and not the underlying problems of software patents. Furthermore, though the stipulation that losing plaintiffs must pay defendant’s legal costs may seem promising in theory, it is a remedy that could lead to unforeseen negative consequences in practice.

The purpose of patents is to promote the advancement of technology, science and useful arts; the true causal issue is the matter of software patent eligibility. The federal courts have thus far failed to address the issue from a software program emphasis, and in so doing, the courts have perpetuated the

⁵³ *Technology*, Summly, <http://summly.com/technology.html>.

⁵⁴ U.S. Const. art. I, § 8, cl. 8.

software wars by maintaining an emphasis on the output of software rather than the invention itself. To borrow the title of Mark Lemley's *Wired* article, "let's go back to patenting the solution, not the problem."⁵⁵

⁵⁵ Mark Lemley, *Let's Go Back to Patenting the 'Solution,' Not the 'Problem'*, *Wired*, Oct. 31, 2012.

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The Hadamar Trial: Inadequacies of Postwar Justice

Madeline Schlesinger

Abstract:

Throughout the Second World War, the Third Reich used facilities at the Hadamar Institution to carry out the Nazi euthanasia program—an operation that targeted German citizens suffering from mental and physical disabilities. Just months after Allied victory and the American liberation of Hadamar, a United States Military commission, led by the young Leon Jaworski, tried personnel from Hadamar for violation of international law in the first postwar atrocity trial. My article aims to accurately depict the crimes committed at Hadamar, present the tension between German and international law during the proceedings, and prove the contemporary inadequacy of legal infrastructure to prosecute the crimes against humanity committed during the Second World War.

The Hadamar Trial, or *United States v. Alfons Klein et al*, commenced on the morning on October 8, 1945 in a Wiesbaden district courthouse.⁵⁶ Seven German civilians faced a United States military commission in the first post-World War II mass atrocity trial prosecuted in American-occupied Germany, charged with participation in the Nazi euthanasia program.⁵⁷ Over the next seven days, a complex legal drama unfolded in an attempt to administer justice in the aftermath of crimes that exceeded all legal precedents. Most of the information in my article comes from the trial records themselves, obtained from the United States National Archives in Washington, D.C., as no American scholarship dedicated exclusively to the Hadamar Trial exists.

Hadamar's dark history began the year Adolf Hitler ordered the German invasion of Poland. In light of a 1939 program permitting so-called "mercy killings" or euthanasia in the case of "incurably insane persons," the Reich government commissioned the establishment of six institutions to facilitate the mass murder of mentally and physically disabled German citizens.⁵⁸ Under government orders from Berlin, Nazi officials converted Hadamar Sanatorium – located in Nassau, Germany – into one of the six facilities designated to perform these "mercy killings." The pretrial investigation documents indicated that, "After this institution went on a production basis, large numbers of German nationals were liquidated through the injections of deadly drugs consisting of morphine and scopolamine."⁵⁹ According to German civil authorities, Hadamar personnel murdered an estimated 15,000 victims by gassing over the course of the war and another estimated 5,000 victims by drugs or poison.⁶⁰

The American liberation of Hadamar in the spring of 1945 exposed the crimes committed at the institution. At this unplanned liberation, quite different from other liberations motivated by clear military objectives, battle-weary Americans confronted the last of the surviving victims of Nazism. The United

⁵⁶ Patricia Herberer, *Atrocities on Trial: Historical Perspectives on the Politics of Prosecuting War Crimes* 25 (2008).

⁵⁷ *Id.*

⁵⁸ *United States of America v. Alfons Klein et al*, microformed M-1078 U.S. Roll 1, 0831 (1945) hereinafter *Alfons Klein*.

⁵⁹ *Id.*

⁶⁰ See *Alfons Klein*, M-1078 U.S. Roll 1, 0659 (1945).

States First Army's Second Infantry Division entered the town of Hadamar on March 26, 1945.⁶¹ Local residents reported disturbing stories regarding thousands of murders in the town's sanatorium. Based on this information, Captain Alton H. Jung decided to investigate, and on March 29, American officials conducted their first visit to the Hadamar facilities.⁶² Investigators proceeded to discover 481 mass graves in the institution's cemetery.⁶³ The team also found a death register containing the names of Hadamar's victims in a wine cellar near the cemetery.⁶⁴ Captain Jung immediately contacted the United States War Crimes Branch alerting the authorities to his findings at Hadamar.

Hadamar horrified and baffled the American liberators. Hall Boyle, an associated press war correspondent, wrote an article for the *Evening Star* on April 10, 1945 describing the liberators' findings. He wrote, "American troops have discovered a German 'murder factory,' rivaling any house of horror dreamed up by fiction writers, where it is estimated 20,000 persons viewed by the Nazis as 'undesirables,' were systematically slain."⁶⁵ In another newspaper article included in the pre-trial documents, one investigator describes the scene he encountered at Hadamar. In the account, entitled "Nazi Murder Mill Found in Asylum: Starved Till Weak, 20,000 Were Slain in 'Mercy Killings,'" the witness states:

Nobody would believe it...it had underground chambers with dripping water, bats flying around and little crazy men jumping out at you at every step...The head keeper showed us 481 graves in the cemetery. There were three fresh empty graves and when we asked him about them he said, "we always keep three graves ahead"...After their 10,000th killing the SS men had a drinking orgy. They cleaned out the skulls of some of their victims and

⁶¹ See Heberer *supra* note 1 at 28.

⁶² *Id.*

⁶³ Alfons Klein, M-1078 U.S. Roll 1, 0658 (1945).

⁶⁴ See Heberer *supra* note 1 at 28.

⁶⁵ See Alfons Klein *supra* note 5.

used them as drinking cups.⁶⁶

The testimony of a former employee at Hadamar also referenced the celebration of the 10,000th killing mentioned above. He described similarly horrific events, verifying the inconceivable commemoration. He remembered all of the personnel assembling in the right-hand wing of the institution, “where everybody was given a bottle of beer and from where we then went down into the cellar.”⁶⁷ There a naked male corpse “with an enlarged head” lay on a stretcher.⁶⁸ All cheered as the “burner” pushed him—the 10,000th victim—into the crematorium.

American liberators and investigators encountered not only disturbing tales of what had happened in Hadamar, but also emaciated survivors that they later attempted to nurse back to health. War correspondent John Thompson’s article from April 10, 1945 entitled “20,000 Slain in Nazi House of Shudders” writes: “...officers found 300 babbling insane creatures hiding in the dim recesses of the underground labyrinth or wandering about upstairs. They were what might be termed the permanent population, ones which were shown to visitors.”⁶⁹ Typical of many liberators’ accounts, Thompson uses language that describes the survivors as somehow less than human.

These stories and images encountered by the liberators set the scene for the Hadamar trial, shocking American investigators and pushing the limits of their imaginations. Captain Brinkley Hamilton, a former British police officer assisting with the Allied investigation of the sanatorium, stated, “In 20 years of police experience at Bow Street, London...I’ve never heard anything like this. I’ve heard such stories but I didn’t believe them. Now I think anything is possible.”⁷⁰ Major Fulton C. Vowell of the

⁶⁶ Id.

⁶⁷ J. Noakes & G. Pridham, eds, *Nazism 1919-1945, Volume 2: State, Economy and Society 1933-1939* 419 (1984).

⁶⁸ Id.

⁶⁹ See Alfons Klein, M-1078 U.S. Roll 3, 1448 (1945).

⁷⁰ Id.

United States War Crimes Office said the discoveries at Hadamar were the most horrible example of Nazi brutality he ever witnessed.⁷¹

Despite the atrocious nature of the crimes carried out against German citizens under Hadamar's roof, American legal authorities maintained that the killing of German nationals carried out at Hadamar "was not subject to prosecution as a violation of international law."⁷² Because Germans committed this mistreatment and murder of German citizens in accordance with a directive from Hitler, the German head of state, international law could not render Allied jurisdiction in the matter. However, the outraged American legal authorities were committed to finding a legal maneuver that would permit them to press charges, for the scene of the crime portrayed too much injustice to simply walk away.

The death register, listing the names and nationalities of the institution's victims, found at Hadamar provided the essential information required by American military lawyers. The meticulous Nazi record keepers ultimately condemned the Hadamar personnel because the investigators were able to ascertain that Polish and Russian nationals were also among the victims. As the prosecution later argued in court, the unjustified killing of foreign nationals under Germany's belligerent control could be tried because each nation-state had a specific interest in the maintenance of international law as outlined by the principles of the Hague Convention.

Until the summer of 1944, the Hadamar personnel had confined the killings to German nationals. However, in July 1944, Polish and Russian men, women, and children began to arrive at the institution.⁷³ Specially selected doctors and nurses murdered these foreign laborers immediately upon arrival by hypodermically administering a lethal dose of a morphine and scopolamine combination solution. They later justified their actions by claiming that the victims suffered from incurable cases of tuberculosis or

⁷¹ See Alfons Klein, M-1078 U.S. Roll 3, 1441 (1945).

⁷² See Alfons Klein, M-1078 U.S. Roll 1, 0003 (1945).

⁷³ See Alfons Klein, M-1078 U.S. Roll 1, 0029 (1945).

other such diseases.⁷⁴ Statements by witnesses indicate that the Hadamar personnel disposed of approximately 300 Polish and 150 Russian forced laborers in this manner from the summer of 1944 until the arrival of the American troops in late March 1945. Every eastern worker admitted to Hadamar died in the institution, no matter what age and no matter the severity of his or her alleged illness.

Examinations and autopsies performed by an American physician determined that immediate death by illness endangered none of the victims.⁷⁵ Major Herman Bolker, a member of the U.S. Army Medical Corps war crimes investigating team and licensed pathologist, performed autopsies on twelve exhumed bodies. According to the testimony of Frederick Dickmann, a former patient and gravedigger at Hadamar, he and the other gravediggers buried German bodies without clothes but with identification tags on their big toes.⁷⁶ The Poles and Russians were buried, on the other hand, in their underclothes but without identification tags.⁷⁷ Of the twelve bodies exhumed, Dickmann identified six as Polish or Russian and six as German based on his memory of burying them and on the information regarding clothing and tags on the patients' toes.

Major Bolker noted, "Immediate comparison of the two groups of bodies showed the Poles and Russians to be a well-nourished group while the Germans showed evidence of considerable weight loss."⁷⁸ This information, combined with more evidence disclosed throughout the course of the trial, proved the relative health of the forced laborers. While the German nationals perished under the government-ordered euthanasia program, the foreigners were murdered for no other reason than that the Reich—in its collapse during the final years of the war—no longer had the resources to feed these slaves. Deemed useless to the Nazi regime, they met death at Hadamar.

⁷⁴ Id.

⁷⁵ See Alfons Klein, M-1078 U.S. Roll 1, 0581 (1945).

⁷⁶ See Alfons Klein, M-1078 U.S. Roll 1, 0579 (1945).

⁷⁷ Id.

⁷⁸ See Alfons Klein, M-1078 U.S. Roll 1, 0580 (1945).

The pathology of the six foreigners provided essential information and evidence for the prosecuting authorities. According to the summary of pertinent pathological findings in the pretrial documents, “good nutrition was apparent in all six bodies” and one body showed no indication of disease in any of its organs or tissues.⁷⁹ Although four corpses showed tubercular involvement, all of it was acute and insufficient as the primary cause of death.⁸⁰ According to Major Bolker, only one of the six bodies showed regional lymph node involvement (indicating a previous or long standing disease).⁸¹ Finally, he noted that the pupils of the bodies “were found to be contracted...finding which is consistent with morphine poisoning.”⁸²

Thus, of the six disinterred bodies, one showed no signs of tuberculosis and four showed non-advanced stages of tuberculosis.⁸³ Based on these pathological facts, none of the individuals examined were in danger of immediate death and, with adequate medical attention, would all have lived for a number of years. However, these people did not receive proper medical attention—nor could they, as Hadamar contained no medical equipment designed to diagnose or treat tubercular patients, such as an X-ray machine or relevant pharmaceuticals. Thus, the scene of the crime looked grim for the Hadamar defendants as they faced charges for murdering hundreds of seemingly healthy foreigners in an institution that stunned its liberators and left them feeling horrified and disgusted.

Before delving into the details and the complexities of the trial itself, one more stage must be set: that of international and German law. The legal contexts existing before, during, and in the immediate aftermath of the Hadamar atrocities unveil the precarious coexistence of legal and illegal activity under Hadamar’s roof between 1939 and 1945. In terms of the international legal framework, two conventions governed land warfare during the Second World War: the Hague Conventions and the Geneva Convention. Negotiated over the course of two international peace conferences—the first in 1899 and the

⁷⁹ See Alfons Klein, M-1078 U.S. Roll 1, 0580-0581 (1945).

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Id.*

⁸³ See Alfons Klein, M-1078 U.S. Roll 1, 0488 (1945).

second in 1907 the Hague Conventions consolidated the laws of land warfare, embodied the rules of customary international law, and addressed issues of war crimes and criminals.⁸⁴ The major powers of the Second World War—including the United States, Germany, Russia, and later Poland—ratified the resultant agreements and their annexes.

The Geneva Convention that existed prior to World War II included three treaties signed in 1864, 1906, and 1929, respectively.⁸⁵ These treaties established protocols and standards of international law for humanitarian treatment of the wounded and sick during war. A fourth treaty, ratified in 1949 in the wake of World War II atrocities, implemented more comprehensive protections and standards, including protections for civilians during wartime.⁸⁶ As demonstrated by the legal conflicts of the Hadamar trial (and other postwar proceedings), many of the provisions and precedents of these two conventions proved inadequate and insufficient to prosecute the types of crimes committed during the war. The unprecedented nature of the atrocities combined with the rather weak statutes of contemporary international law set a messy stage for the Allied commissions that tried war crimes cases.

During the Hadamar trial, “prosecution authorities placed great emphasis on the Hague Convention of 1907, which attempted to codify the rules of land warfare.”⁸⁷ Specifically, section II (entitled “Military Authority Over the Territory of the Hostile State”) article 46 (entitled “Annex to the Hague Convention, October 8, 1907”) imposed strict requirements for the protection of civilians during wartime.⁸⁸ The relevant portion of the article reads: “Family honour and rights, the lives of persons, and private property, as well as religious convictions and practice, must be respected.”⁸⁹ Furthermore, according to this legislation, the Hadamar personnel committed deeds liable for prosecution as war crimes

⁸⁴ Convention (II) with Respect to the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land, The Hague, Jul. 29, 1899.

⁸⁵ *Geneva Conventions*, Red Cross, (Oct. 15, 2012), www.icrc.org/eng/war-and-law/treaties-customary-law/geneva-conventions/index.jsp.

⁸⁶ *Id.*

⁸⁷ See Alfons Klein, M-1078 U.S. Roll 1, 0003 (1945).

⁸⁸ *Id.*

⁸⁹ See Convention II *supra* note 29.

by a military commission because they participated in the killing of civilians without just cause.”⁹⁰ The portion of the Geneva Convention ratified in 1929 that expanded upon the regulations and precedents of the Hague Convention of 1907 also proved valuable to the prosecution during the Hadamar proceedings insofar as they related to the treatment of prisoners of war. In the establishment of a prima facie case, the U.S. Military Commission ultimately charged the defendants from Hadamar with “murder and malnutrition of allied Polish and Russian displaced nationals or forced laborers in violation of the Geneva Convention and Rules of land Warfare.”⁹¹ Thus, the provisions outlined by the international treaties created the initial foundation upon which the prosecution built charges.

The Moscow Declaration, released on November 1, 1943, also played an essential role in the establishment of American jurisdiction in the Hadamar case. The governments of the United States, United Kingdom, Soviet Union, and China signed the four-nation declaration, stating their intention to prosecute war criminals after the end of the war. This document served as a basis for all war crimes trials following World War II, whether undertaken by military commissions, U.S. military tribunals, or international military tribunals.⁹²

The section entitled “Statement on Atrocities” signed by President Franklin Roosevelt, Prime Minister Winston Churchill, and Premier Joseph Stalin, contains important information regarding the intention of the Allied powers to bring crimes committed by the Axis powers to justice.⁹³ The statement describes the “atrocities, massacres, and cold-blooded mass executions” perpetrated by “Hitlerite forces in many of the countries they have overrun and from which they are now being steadily expelled” by the advancing armies of liberating powers.⁹⁴ In light of these atrocities, the declaration asserts the three Allied powers’ intention to try perpetrators of war crimes. The document warns German officers and members of the Nazi party who “have taken a consenting part in the above atrocities” that they “will be

⁹⁰ See Alfons Klein *supra* note 32.

⁹¹ See Alfons Klein *supra* note 18.

⁹² *Id.*

⁹³ . See Alfons Klein, M-1078 U.S. Roll 1, 0015 (1945).

⁹⁴ Joint Four-Nation Declaration, The Moscow Conference (1943).

brought back to the scene of the crime and judged on the spot by the peoples whom they have outraged” according to the laws of “the free governments which will be created therein.”⁹⁵ Finally, the document finishes with a stern advisory to “those who have hitherto not imbrued their hands with innocent blood lest they join the ranks of the guilty, for most assuredly the three allied powers will pursue them to the uttermost ends of the earth and will deliver them to their accusers in order that justice may be done.”⁹⁶ Thus, before the end of the war and the revelation of the atrocities, the Allied powers agreed to prosecute and punish Axis war criminals for their actions.

These three documents—the Hague Convention, the Geneva Convention, and the Moscow Declaration—together set the legal stage of the Hadamar drama as the defendants, charged with violations of international law, took the stage. However, as the case advanced, the defense began to contest the legitimacy of this framework in various ways.

Although the invocation of nonexistent laws and makeshift processes ultimately secured convictions for all seven Hadamar defendants, the shifting international priorities accompanying the dawn of the Cold War led to a steady descent and ultimate dissolution of postwar justice. All surviving defendants of the Hadamar trial received awards of clemency in the early 1950s, and by the end of 1951 not one surviving member of the Hadamar staff remained in confinement.

The policies of Konrad Adenauer—the first post-war Chancellor of West Germany—figured as significant contributors to the swift erosion of justice. The new West German state (and also East Germany in its own way) confronted the huge problem of trying to win the loyalties of, or at least acquiescence, populations of those formerly involved in the Nazi regime, including many of its criminals. Adenauer believed that continuing with harsh punishments against war criminals—even enthusiastic Nazis—would not only alienate these people and their families but also wider circles of the German population who displayed considerable sympathy with the people imprisoned by the Allies. Thus, the

⁹⁵ *Id.*

⁹⁶ *Id.*

subsequent move to ameliorate or even commute sentences, insofar as these moves resided within the power of the German agencies, reflected the recognition that former perpetrators needed to be reintegrated into German society if West German democracy stood any chance at all of succeeding (and, in the East, if the socialist project won any popular legitimacy).

With each passing year, the war represented a more distant memory, and sympathy for the victims of the Nazi euthanasia program transformed into empathy for the accused. Jurists spoke of the “untenable circumstances” under which doctors, nurses, and bureaucrats worked during the Nazi years, evidencing the ever-widening circle of victims in the decades following the war.⁹⁷ In the end, “there seemed to be only victims and no perpetrators.”⁹⁸

“There are stenchs which not the name of justice nor reason or the public good, or any other fair word, can turn to sweetness.” – Rebecca West

⁹⁷ See Heberer *supra* note 1 at 40-41.

⁹⁸ *Id.*