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Minority Report: Real Patent Reform, Maybe Later - the America Invents Act and the Quasi- Recodification Solution

Thomas C. Folsom

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**MINORITY REPORT:
REAL PATENT REFORM, MAYBE LATER—
THE AMERICA INVENTS ACT AND
THE QUASI-RECODIFICATION SOLUTION***

*Thomas C. Folsom***

“Congress has not enacted comprehensive patent law reform in nearly 60 years . . . The need to update our patent laws has been meticulously documented . . . The [America Invents Act] is designed to establish a more efficient and streamlined patent system that will improve patent quality and limit unnecessary and counterproductive litigation costs.”¹

* * *

“Never has so much attention been focused on a patent enactment that accomplished so little.”²

* * *

* © Thomas C. Folsom 2011, 2012. The basis of this Article is a manuscript I delivered in advance of a conference at Akron on October 28, 2011, later revised for publication.

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1. Report of the Committee on the Judiciary of the House of Representatives, H.R. REP. NO. 112-98, pt. 1, at 38-39 (2011) [hereinafter the “House Report”], reporting on H.R. 1249, later enacted as the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 286 (codified in scattered sections of 35 U.S.C.) (2011), amending the Patent Act of 1952 [hereinafter the “America Invents Act” and the “Patent Act” respectively].

2. Donald Chisum, *What the Reform Act Does NOT Reform*, CHISUM PATENT LAW REFERENCE GUIDES (CPLRG), No. 7 (Sept. 16, 2011), <http://www.chisum.com/category/current-developments/america-invents-act> (last visited on Oct. 19, 2011). See *infra* text at note 40 for Professor Chisum’s list of problems not addressed by the AIA; and *cf.* PHILIP K. DICK, *The Minority Report*, THE PHILIP K. DICK READER 325 (1987) (1956) (“. . . Every incoherent utterance, every random syllable, was analyzed, compared, reassembled . . . transcribed . . . and ejected into various coded slots.”)

“The more efficient you are at doing the wrong thing, the wronger you become.”³

This is a minority report. I do not agree that there is any comprehensive reform in the new act. I distinguish between a change in the law that adds new provisions, and a reform that either clarifies and improves existing law or corrects defects in existing law. The new law may indeed comprise substantial changes, but it does not constitute reform. I assert one claim—the new Patent reform act is disappointing, but not fatal to real reform—in three parts. First, the Leahy-Smith America Invents Act (AIA) has transformed U.S. Patent law from the traditional first-to-invent system to something else. What we have wrought is not a first-to-file system as in other nations, but rather a non-standard “first to declare” system that will open up what I refer to as a new “petty priority contest” with petty interference proceedings. Second, the AIA leaves so much undone as to discourage anyone who hopes for real patent law reform. It is still fair to say that bad patents are not an abuse of the system; instead they are the system. But, third, there is a quasi-recodification solution that has worked in the past, in the field of federal securities law reform which was at least equally difficult, and that provides a realistic and practical roadmap for real reform of the patent laws. The Supreme Court’s insistence upon applying all of the equitable factors before awarding injunctive relief can be the key to implementing reform. I conclude with a preview of real reform.

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3. Interview by Stephen Miller with Russell Ackoff, *A Management Philosopher with Heady Ideas About Beer*, WALL ST. J., Nov. 11, 2009, at A18 (quoting Russell Ackoff) (“All of our social problems arise out of doing the wrong things righter. The more efficient you get at doing the wrong thing, the wronger you become. It is much better to do the right thing wronger than the wrong thing righter! If you do the right thing and correct it, you get better!”).

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INTRODUCTION

The AIA has been six years in the making and will have a major impact on the day-to-day practice of patent law in the United States. But for all of this, the AIA demonstrates a systemic institutional capability problem. If the problem is “bad” patents, and if after so many years, so much time, trouble, and lobbying expenses, the AIA is all that Congress can produce, then it is time to seriously reconsider what real patent law reform might be and how it may ever be achieved.

This Article has three parts. In Part One, I describe what Congress claims to have done, then what the Act actually has done, and therefore what is the most that can be hoped to come from it. In considering what Congress has done, I briefly outline the theoretical basis of the new hybrid system, neither first-to-invent nor first-to-file, but rather a “first to declare” system with a one-year grace period that is both a shield and a sword to the declarant. More importantly, Congress has indicated it believes the new system is compatible with the Constitutional grant, and I suggest that Congress’ new perspective may lead to a new understanding of what the Constitution minimally requires, thereby opening the way for a more flexible, efficient, and streamlined patent regime despite the AIA.

In Part Two, I describe the nature of the underlying problems in patent law. What, exactly, makes a bad patent worse than any other

patent? If there were a serious problem with bad patents prior to the AIA, there still is. The reason for asking the question is stunningly simple: if so many routinely issued patents are “bad,” then it must be said that bad patents are not an abuse of the current system, they *are* the system. In this section, I describe what the AIA has failed to do, propose a working definition of “bad” patents, and provide some hypotheticals aimed at the non-specialist. I claim the problem of bad patents is endemic to the existing system, is not nearly cured by or even defined in the AIA, and yet is possible of cure according to a new way of framing that might be embedded in the AIA. How, then, ever to attain real and fundamental patent reform post-AIA?

In Part III, I propose a quasi-recodification solution, incidentally eliminating all the other competing sources (current judicial, administrative, and legislative) in the course of working out a solution, and prior to introducing a new judicial approach while waiting for actual recodification. My essential claim is that this solution is not fanciful, is not some academically unrealistic or quixotically impossible mission, but quite practical and possible. Something very like it, in the face of at least equal difficulty and skepticism, has already been done and attained a surprising measure of success in respect of the federal securities laws two generations ago. The availability, and the requirement, of limited injunctive relief paves the way for development of on-going reform according to a specified plan and according to a proposed recodification (or American Law Institute-style restatement) of patent law. Appendix A to this Article is a section-by-section summary of the AIA. Appendix B is a rough outline of a quasi-restatement of patent law.

This Article is the culmination of a sequence of papers. It is one of three⁴ that the University of Akron has encouraged through their annual roundtables, a series of day-long conversations among a relatively small number of participants, allowing freedom to rethink some fundamental notions in intellectual property law, and it completes the outlines of the sketch previously begun. It is in the nature of practical speculation; an outline without all the details provided and without footnotes to sources that are easily recovered. I aim to take full advantage of the opportunity opened by the Akron roundtables. The reader should expect that provenance to show: this paper is not a carefully balanced research piece, nor do I intend this Article to be a technical review of the AIA.

4. The others are Thomas Folsom, *Truth in Intellectual Property Revisited: Embracing eBay at the Edge*, 2 AKRON INTELL. PROP. J. 69 (2008); Thomas Folsom, *Toward Non-Neutral First Principles of Private Law: Designing Secondary Liability Rules for New Technological Uses*, 3 AKRON INTELL. PROP. J. 43 (2009).

Given the already massive outpouring of materials of a technical nature, any such attempt would be preempted, inadequate, and immediately outdated by the time this is published.⁵ Instead, this article is focused on what remains to be done, taking advantage of the changes in interpretation made possible by the AIA coupled with the limited injunctive remedy required by the Supreme Court in its *eBay* decision.⁶

I am writing to a dual audience, first to non-specialists and non-patent practitioners, then to the patent bar. Moreover, I am writing with a point of view, but not the most apparent one. It will most clearly appear that I believe the patent system is in need of fundamental reform because I believe it rests upon fundamental flaws. I tend to favor a particular solution. But the particular solution(s), or even the particular diagnosis, is not the point of view I am attempting to establish, argue, or defend in this article. Instead, my point of view is much more general and much more modest.

I assert simply that the patent system is anchored upon insecure moorings; that its most basic doctrines comprise antinomies if not contradictories. It is possible at one and the same time to say, and to have substantial legal authority on either side to support, opposite things about patent law—both about what it is and what it should be. After some 225 years of American patent law, it can be said simultaneously that we both know, and don't know, what constitutes patent-eligible subject matter; how to determine reliably and predictably what constitutes that “something extra” beyond novelty (“nonobviousness” or whatever else it has been called over the years); how to interpret claims; how (or why) to determine infringement by non-literal “equivalents”; how to measure damages and when to award injunctive relief; what presumptions are merited, and what standard of review to employ; what the purpose, source, and object of patent law is (and, if more than one, how to put them together); what the “model” of invention looks like; or

5. Excellent material of the technical sort is already abundant. See, e.g., SHUBHA GHOSH, UNDERSTANDING INTELLECTUAL PROPERTY (Supp. 2d ed., 2011); John Gladstone Mills III, Donald C. Reiley III & Robert C. Highley, *Overview of the Patenting Process—Summary of the Revisions to the Patent Act by the Leahy-Smith America Invents Act*, in PAT. L. FUNDAMENTALS § 1:37 (2d ed. 2012); Hung H. Bui, *An Overview of Patent Reform Act of 2011: Navigating the Leahy-Smith America Invents Act Including Effective Dates for Patent Reform*, 93 J. PAT. & TRADEMARK OFF. SOC'Y 441 (2011); Hayden W. Gregory, *Off and Running with the America Invents Act*, 4 LANDSLIDE 2 (2012); *America Invents Act Web Series*, AM. INTELL. PROP. L. ASSN., http://www.aipla.org/learningcenter/live_webinars/qa/Pages/default.aspx. My intended audience, purposes, and point of view are different from those.

6. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

what a makes a bad patent “bad” and a good patent “good.” And there are other anomalies.

No one should look for perfection in law on a complex subject, and no one should be surprised at necessary gaps or omissions. But my general point of view is simply that patent law is more imperfect than it needs to be and more imperfect than it ought to be. My claim is supported by the very fact that there is nothing unfair about the fundamental criticisms contained in this Article. This is not the Article (or book) in which to support and defend my particular critique,⁷ but it is, instead, my purpose only to say that the nation would be better off if we were to engage in an effort of real reform of the patent laws. My purpose is to suggest how it is still possible to do so, despite the AIA. In the course of doing so, I propose a model, set forth in Appendix B. It is not the specific content, but the general process with which I am concerned.

By the way, this paper itself was first published, in draft, on or before October 28, 2011 and distributed to the participants at the University of Akron’s IP Scholars Forum. I make no claim to any particular originality in any of the ideas expressed, but perhaps only in the selection, order, and arrangement of the material. Yet, in the spirit of the AIA itself, I claim a priority date in October 2011 for such as I have described in a printed publication or made “otherwise available to the public.”

7. I can imagine that there is no conceivable thought about patent law that has not already been thought, and nothing possible of being written that has not already been written. I claim no originality, except perhaps in some measure in my selection, order, and arrangement of the work already done by others. The purpose of my little article, and of the outline of a restatement attached as Appendix B is to urge that the time to talk and to write may well be over, and it may be time to act. The careful reader will see the derivation of my sources, and the busy reader might be grateful that I have not burdened this paper (already overly long, and almost a year delayed) with yet further scholarly apparatus. Exhaustive references may be found, among other places, in the “meticulous documentation” provided by the Congress and referenced in the legislative history of the AIA. See notes 21-25 *infra* (pointing to some of the meticulous documentation already produced, and upon which the reader can rely). Within the FTC and National Academy reports are citations to scores of articles, commentators, and comments to support the half dozen or more problems, concerns, and flaws identified at great length in the reports themselves, and to justify their many recommendations. Likewise in the many hearings, articles (and the book), referenced in the legislative history. My critique does not go so far as to say that all, or even most patents are bad. But I agree with many others that a non-trivial plurality of patents has issued on subject matter that is doubtful, on claims obvious to a person having skill in the pertinent art, in respect of disclosures and claims that are inadequate, on interpretations that are flawed, or are accompanied by remedies that do not make economic (or any other) sense. These comprise a plurality of cases that cannot be dismissed as accidental or occasional flukes, but must be accounted for because they are, in fact, part of the patent law system. I believe this is a moderate, yet realistic perspective.

I. DESCRIPTION: THE AMERICA INVENTS ACT

My claim is that the recent reform Act is disappointing, but not fatal to real reform. Indeed there are some novelties and anomalies that might point the way to a constructive rethinking of Patent law. To support that claim, I begin with a description. In this section, I describe what Congress claims to have done; what it actually has done in the thirty-seven provisions of the AIA; and what it has begotten in those particular provisions that establish what I label the first-to-declare system. Then I point out some peculiar anomalies in the Act that I will emphasize later (in Section III of this paper) as a basis for proposing a more fundamental reform, and I conclude this section by evaluating the AIA as incomplete and disappointing, but perhaps opening the way to real reform, later.

In this section, I summarize what the AIA prescribes, and therefore what can be hoped to come from it. It would be tempting to call this a “pre-prescription” by Congress to call attention to the fact that Congress has prescribed a solution without first having specified the exact nature of the “bad patent” problem. Accordingly, it might be tempting to treat the claims of comprehensive Patent reform made by Congress as so much hyperbole. But what if the AIA really were a comprehensive change in the law, and what if it really contains at least an implicit invitation to reconsider the traditional legislative and Constitutional underpinnings of the patent system?

A. What Congress Claims to Have Done

Congress was neither bashful nor secretive about its legislative purpose. Three times in the text of the statute itself, and frequently in the House Report, Congress declares its purpose and intent. It is not unfair to take Congress at its word concerning its own intent and its own claims to have succeeded in executing its intent.

1. Legislative Intent as Expressed in the Statute Itself.

Congress has placed no fewer than three separate “senses of Congress” in the AIA itself. These range from the familiar to the unfamiliar. Early in the AIA, in section 3, Congress first states the “sense of the congress” in language tied to its “first inventor to file” innovation, but otherwise familiar, as it echoes the Constitutional language:

It is the sense of the Congress that converting the United States patent system from “first to invent” to a system of “first inventor to file” will *promote the progress of science and useful arts by securing for limited times to inventors the exclusive rights to their discoveries* and provide inventors with greater certainty regarding the scope of protection provided by the grant of exclusive rights to their discoveries.⁸

Still in section 3, Congress states a second “sense of the congress” in terms of improvements to the U.S. patent system by harmonization with the patent laws of other countries, still tied to its “first inventor to file” innovation and once again tied to at least some of the familiar language of the Constitution:

It is the sense of the Congress that converting the United States patent system from “first to invent” to a system of “first inventor to file” will improve the United States patent system and promote harmonization of the United States patent system with the patent systems commonly used in nearly all other countries throughout the world with whom the United States conducts trade and thereby promote greater international uniformity and certainty in the procedures used for *securing the exclusive rights of inventors to their discoveries*.⁹

Finally, much later, and in section 30 of the AIA, Congress declares yet a third “sense of congress.” But now the purpose of the patent system (expressed as what it “should” do) is phrased in terms of “new” technologies, growth, jobs, and protection of small businesses and small inventors from “predatory behavior.” Here, Congress uses broad language unrelated to its “first inventor to file” innovation and unconnected to any of the familiar language from the Constitution limited to “inventors” or to their “discoveries”:

It is the sense of Congress that the patent system should promote industries to continue to develop *new* technologies that spur growth and create jobs across the country which includes protecting the rights

8. America Invents Act, Pub. L. No. 112-29, sec. 3(o), 125 Stat. 284, 293 (2011) (emphasis added). The italicized language generally tracks the language of the U.S. Constitutional grant of patent authority to Congress. U.S. CONST. art. I, cl. 8, § 8 (“[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 right to their respective writings and discoveries”). In adopting this formulation, Congress departs slightly from the ‘grammatical hypothesis’ that has characterized prior formulations. See *infra* Appendix A, text at note 240 (discussing the grammatical hypothesis).

9. Sec. 3(p) (emphasis added). The italicized language is reminiscent of some language in the U.S. Constitutional grant of patent authority to Congress. U.S. CONST. art. I, cl. 8, § 8.

of small businesses and inventors from predatory behavior that could result in the cutting off of *innovation*.¹⁰

2. Legislative Intent as Glossed in the House Report.

The House Report previously referenced,¹¹ after setting forth the text of the Bill as reported out of Committee, next sets forth its “Purpose and Summary.” Observing that Congress has not enacted comprehensive patent law reform in nearly sixty years¹²—not since the Patent Act of 1952—the House Report glosses the Congressional intent and purpose as expressed in the AIA. Claiming that it is adhering to the traditional objects of patent law, Congress claims to have changed only the form of patent law to correct “unbearable” flaws, after having “meticulously” documented the need to do so, thereby improving patent quality, and addressing the sense that questionable patents are too easily obtained¹³ and too difficult to challenge. In doing so, Congress claims it has focused on the values of harmonizing our patent system with the best parts of other industrialized nations for the benefit of U.S. patent holders; improving patent quality; providing a more efficient system for challenging patents that should not have issued; and reducing

10. Sec. 30 (emphasis added). This provision was added from the floor. *See infra* text accompanying note 15.

11. H.R. REP. NO. 112-098, at 38-39 (2011). As to the three senses of Congress, the Report simply states that section 3(o) promotes the purposes of the Constitution, and 3(p) promotes harmonization. *Id.* at 74 (prior section numbers). Section 30 was not in the bill as reported. *See infra* note 15. In this part, I review the House Report for other indications of Congressional intent.

12. *See supra* text accompanying note 1. By comparison, the Congress may be modest in its self-assessment. *See infra* note 151 (referring to a report in the US Patent and Trademark Office’s bi-monthly publication for independent inventors, upon the AIA signing ceremony, characterizing the AIA as the “most significant reform of the U.S. patent system since 1836.”) (emphasis added). By that reckoning, the AIA would be the most comprehensive patent reform in 175 years.

13. In an ironic coincidence, perhaps demonstrating just how easily patents are obtained, some one million U.S. patents issued just within the six years that the AIA was being crafted within Congress. On February 14, 2006, not long after Congress began its deliberations on the bills that eventually became the AIA, U.S. Patent No. 7,000,000 issued to John O’Brien on Polysaccharide Fibers (assigned to E.I. du Pont de Nemours and Company), as reported by the Patent and Trademark Office. *See* http://www.uspto.gov/news/7000000_Polysaccharide_fibers.pdf. On September 11, 2011, five days prior to the signing ceremony for the AIA, U.S. Patent No. 8,000,000 issued to Robert Greenberg, et al. for a Visual Prosthesis (assigned to Second Sight Medical Products, Inc.), as reported by the PTO. *See* <http://www.uspto.gov/news/pr/2011/11-47.jsp>. It took until August 11, 1911 to get to U.S. patent 1,000,000, but just under 6 years to get from patent number 7,000,000 to patent number 8,000,000. *Id.* The AIA traces its provenance to bills introduced in 2005, and was signed on September 16, 2011. *See infra* text at notes 32-35. While patents numbers 7,000,000 and 8,000,000 may both very well have been of high quality, and neither may have been “too easily” obtained, there were just over one million others that issued during the six years the AIA was pending.

unwarranted litigation costs and inconsistent damages awards. Here is the relevant language:

(a) Familiar Objects of Patent Law

The House Report, based on the bill (HR 1249) as referred to the Committee on the Judiciary, and as amended in committee, recommended passage of the Bill. The House Report's "Purpose and Summary" glosses two familiar objects in existing patent law, consistent with the Constitutional grant, and it affirms that those objects must remain the same, whilst the form of patent law must change:

The Constitution explicitly grants Congress the power to "promote the progress of science and useful arts, by securing for limited times to . . . inventors the exclusive right to their respective . . . discoveries." Congress has responded by authorizing patents to issue to inventors of new and useful inventions or improvements on inventions. The patent law thus accomplishes *two objectives*, consistent with the authorization granted by the Constitution: *first*, it encourages inventors by granting them limited, but exclusive rights to their inventions; *second*, in exchange for the grant of those exclusive rights, the patent law requires disclosure of the invention and terminates the monopoly after a period of years. . . .

Congress has not enacted comprehensive patent law reform in nearly 60 years. The *object* of the patent law today must remain the same, but its *form* needs to change, both to correct flaws in the system that have become unbearable, and to accommodate changes in the economy and the litigation practices in the patent realm¹⁴

(b) Another Object of the Patent Law

On the floor, and by an amendment to the bill, Congress added a statement of yet another object of the patent system.¹⁵ This new object is tied to "new" technology, promoting growth, job creation, and preventing the "cutting off" of "innovation" by predatory behavior. There is no reference to the familiar legislative purpose of promoting

14. H.R. REP. NO. 112-098, at 38 (2011) (emphasis added) (ellipses within the language quoting the Constitution as in the original).

15. Sec. 30. See *supra* text accompanying note 10. Labeling it a matter "regarding protecting small businesses," Joe Matal reports that § 30 was an amendment offered by Representative Sheila Jackson Lee on the House Floor in June 2011. See Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. BAR J. 435, 509 (2012) [hereinafter, "Guide to the Legislative History"]. Her statement is recorded in the Congressional Record of June 23, 2011. ("... Small Businesses Create Jobs. It is a fact...").

“invention” or “inventors” except insofar as small inventors are specifically described as persons to be protected from “predatory behavior.” Here, the patent system is characterized as something that should promote industries, to develop new technology (not “inventive” technology, but “new” technology), to spur growth, and to create jobs, while protecting small persons from predatory behavior. I have already mentioned this innovation in the section on legislative intent as expressed in the statute itself,¹⁶ and I repeat it again here to account for the otherwise strange silence in the House Report on such an important provision. The House Report is silent on this provision for the reason that this provision did not exist in the Bill as reported and recommended by the Judiciary Committee.¹⁷ Here again is the statutory language, unaccompanied by any corresponding reference in the House Report:

It is the sense of Congress that the patent system should *promote* industries to develop *new* technologies that spur *growth* and create *jobs* across the country which includes *protecting* the rights of small businesses and inventors from *predatory* behavior that could result in the cutting off of innovation.¹⁸

(c) Change in Form of Patent Law

After asserting that the objects of the patent system “must remain the same” (and prior to the floor amendment that actually changed the objects of the patent system by adding the new notion that the patent system should promote “new” technology to spur growth and create jobs),¹⁹ and after asserting that only the form needs to change, the House Report states that “unbearable flaws” are one of the reasons for the needed change in form:

. . . [patent law’s] form needs to change, both to correct flaws in the system that have become unbearable, and to accommodate changes in the economy and the litigation practices in the patent realm.²⁰

16. Sec. 30.

17. See Guide to the Legislative History, *supra* note 15, at 509.

18. Sec. 30 (emphasis added).

19. See *supra* text at notes 14 (“must remain the same”) & 18 (adding the promotion of industries to develop new technologies that “spur growth and create jobs”). While growth and job creation might be considered the natural results of a system that promotes progress in science and useful arts by securing rights for limited times to “inventors” the innovation in this language lies in making the direct connection to jobs as the purpose of the patent system, tied only to technology that is “new” and without any direct limitation based on something like non-obviousness (or “invention” or “inventor”).

20. H.R. REP. NO. 112-098, at 39-40 (emphasis added).

(d) Meticulous Documentation

The House Report fixes the evidence of the needed change in form—the flaws that have become unbearable, and the changes in the economy and litigation practices—by reference to specific documentation:

The *need to update* our patent laws has been meticulously documented in 15 hearings [in the House] as well as eight hearings before the United States Senate Committee on the Judiciary. In addition, these legislative findings are augmented by the Federal Trade Commission and the National Academy of Sciences . . . and a plethora of academic commentary.²¹ . . . the need to *modernize* our patent laws has found expression in the courts, as well. . .²² The Court's decisions have moved in the direction of *improving patent quality* and making the *determination of patent validity more efficient*.²³ . . . Recent decisions by the Federal Circuit reflect a similar trend in response to these concerns . . .²⁴ But the courts are constrained in their decision by the text of the statutes at issue. It is time for Congress to act.²⁵

(e) Flaws to be Addressed

Having concluded that the form of patent law needs to change to address “flaws... that have become unbearable,” that this need has been documented, and that the courts are moving in the direction of improving patent quality, the House Report names at least one or two of the flaws, at least as exhibited in the decisions of the courts. The House Report characterizes those decisions as reflecting “a growing sense that *questionable patents* are too easily obtained and are too difficult to challenge.”²⁶

21. *Id.* at 39 (internal footnotes omitted) (citing studies by the National Academy of Sciences and the Federal Trade Commission, and citing six articles, including by Professors Lemley and Shapiro, Chisum, Mossinghoff, Farrell and Merges, Jaffe and Lerner, and Rivette and Kline); *id.* at 57 (providing additional detail on prior hearings). Full citations are provided in the House Report. Cumulatively, these are substantial works containing references to scores, if not hundreds, of other authorities, comments, and commentators, and describing standard problems and proposed solutions. It is because of this documentation that I am able both to disclaim any originality in my own work, and also to state without demonstration later in this article some of the many flaws long recognized in the patent laws. See *infra* Section III (describing bad patents and standard problems).

22. *Id.* at 39 (emphasis added and internal footnote omitted) (citing six cases decided by the Supreme Court during the period 2006–2010 reversing the Federal Circuit).

23. *Id.* (emphasis added).

24. *Id.* (internal footnote omitted, citing a case from the Federal Circuit).

25. *Id.*

26. *Id.* (emphasis added) (internal footnote omitted, citing to a statement of Professor Lemley to the Senate Judiciary Committee).

(f) Goals/Values to be Achieved

The House Report includes at least six goals or values of the AIA, five of them in the “Purposes and Summary” section, and a sixth one later in the Report, under the heading “Performance Goals and Objectives”:

[1] *harmonizing* our system for granting patents with the best parts of other major patent systems throughout the industrialized world for the benefit of U.S. patent holders²⁷

[2] *improving* patent quality²⁸

[3] *providing* a more efficient system for challenging patents that should not have issued²⁹

[4] *reducing* unwarranted litigation costs and inconsistent damage awards³⁰

[5] *ensuring* that “the patent system in the 21st century reflects the constitutional imperative . . .” The legislation is “designed to establish a *more efficient* and *streamlined* patent system that will *improve patent quality* and limit unnecessary and counterproductive litigation costs³¹

[6] modernizing U.S. patent law to *improve* the operation of the U.S. Patent and Trademark Office, *inhibit* frivolous patent lawsuits, *protect* the rights of all inventors, and *spur* innovation as a means to *create* American jobs and *raise* standards of living³²

(g) Time Spent, and Provenance

The House Report characterizes the AIA as a “6-year work in progress.”³³ The Report traces the provenance of the AIA back to bills introduced in 2005, in both House and Senate, culminating in S. 23 passed by the Senate on March 8, 2011 and the “substantially similar” H.R. 1249 later passed by the House³⁴ and finally signed on September 16, 2011.³⁵

27. *Id.* (emphasis added).

28. *Id.* (emphasis added).

29. *Id.* at 39-40 (emphasis added).

30. *Id.* at 40 (emphasis added).

31. *Id.* (emphasis added).

32. *Id.* at 73 (emphasis added) (“Performance Goals and Objectives”). As in section 30 of the AIA, this last goal once again explicitly ties the patent system to the goal of job creation.

33. *Id.* at 57.

34. *Id.*

35. See Office of the Press Secretary of the White House, President Obama Signs America Invents Act, September 16, 2011, available at <http://www.whitehouse.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim>.

Joe Matal's summary of the legislative history outlines the legislative packages introduced in each of the sessions from 2005 (the 109th through the 112th sessions).³⁶ The 2007 package of ideas and proposals (Leahy-Hatch in the 110th Congress) is representative. Matal catalogs nine significant features in that package: (1) adoption of the first-to-file system and new definition of prior art, (2) reform of the inventor's oath requirement, (3) a requirement that reasonable royalty damages be calculated on the basis of the patent's specific contribution over the prior art, and new barriers to the award of enhanced damages, (4) broad prior user rights, (5) post-grant review during the first year after issuance on any ground, and later if the patent were asserted against the person seeking review, (6) authorization for third parties to submit patents and printed publications, (7) restriction on venue for bringing a civil action for infringement, (8) authorization for immediate interlocutory appeal of a district court's construction of patent claims, and (9) authorization for the Director of the U.S. Patent and Trademark Office to promulgate regulations to carry out the patent laws.³⁷ Two notable provisions from the 2006 package were omitted from the 2007 package: award of attorney's fees to the prevailing party in a patent infringement suit, and restrictions on the inequitable-conduct doctrine.³⁸

During often contentious debate (a "bruising battle") over the years and in various sessions, the patent reform bills changed, mainly by subtraction—by deletion of the "most controversial provisions"—but with some new provisions added, and its name changed to the AIA.³⁹ Matal summarizes these incremental, and fascinating, emendations in detail, documenting what was on the table from time to time in the legislative process. There is an inside-baseball feel to these provisions, as demonstrated by the largely technical nature of the package.

Matal's valuable summary is equally useful in documenting what was never part of the six-year effort at patent reform. The numerous changes addressed in various versions of the bills introduced into Congress nowhere include those more fundamental, substantive issues noted by Professor Chisum. As Professor Chisum says:

36. Guide to the Legislative History, *supra* note 15, at 438-47.

37. *Id.* at 439-40

38. *Id.* at 440 n.26.

39. See *id.* 439-47, especially 441 ("bruising battle"), 442 ("eliminated the most controversial provisions") & 445 ("renamed the bill, previously always identified as the 'Patent Reform Act' as the 'America Invents Act.'")

The changes made by the AIA are significant and numerous, but they change little of the substantive law on patentability and infringement.

For example, essentially unaltered are:

- (1) the standards of novelty and unobviousness in relation to the prior art (though the Act will, prospectively, alter the definition of prior art),
- (2) the enablement and written description requirements,
- (3) patent eligible subject matter,
- (4) claim interpretation,
- (5) the doctrine of equivalents and prosecution history estoppel,
- (6) remedies for infringement, and
- (7) direct and indirect infringement (active inducement and contributory infringement).⁴⁰

Although at least one of Chisum's seven topics (remedies for infringement) was somewhat in the mix in an earlier version the patent reform package before being dropped from the bill, it is striking that most of these were never any part of what has become the America Invents Act. Despite all of the effort, and all of the rhetoric, the legislative history reveals a six-year undertaking that did not, for all its substantial changes around the edges, attempt much in the way of substantive reform at the core of the patent system. An observer might almost think that Congress did not really believe there was much in the patent system that needed reform.

(h) Valuation of Intellectual Property

The House Report includes the views of a prominent member about the value of intellectual property:

Increasingly our nation has an information based economy, and the key to such an economy is intellectual property such as patents, copyrights and trademarks. Studies establish that intellectual property drives this economy to the tune of \$5 trillion dollars (sic), accounting for half of all U.S. exports and employing nearly 18 million workers. This is why the House Judiciary Committee has been working on patent reform for over 6 years, under both parties.⁴¹

Collectively, these are bold claims about what the Act is intended to do—in its own words, to correct unbearable flaws. In the next section of this Article, I will summarize what it actually accomplishes. It is fair to say that it does far less than it claims. And yet the sense of Congress

40. Chisum, *supra* note 2.

41. *Id.* at 162 (dissenting views of Representative John Conyers, Jr.).

that it wants to set the patent system on a path towards promoting industry, “new” technology, and United States jobs is an interesting development. I will take Congress at its word as to its intent.

*B. What it Has Done: Thirty-Seven Sections (and nothing on)*⁴²

It is certainly possible to take any of three approaches to the AIA, based on the distinction between a change in the law that adds new provisions and a reform that either clarifies and improves existing law or corrects defects in existing law.

The first approach is to treat the AIA, not as a failed reform, but as a largely successful and substantial change to the patent system. This, in turn would correlate to a vision of current law as being pretty good, just in need of international harmonization (“first to file”), a little more prior art review, and a few additional tweaks. I would call this a technical, almost triumphalist view. It is very tempting to reconstruct the AIA as a logically coherent set of changes: first-inventor-to file; more robust *inter partes* proceedings; newly constituted derivation actions; procedural and technical changes; and various uncategorized odds and ends. Assuming the foundations are solidly in place, and without too many unbearable flaws, this first approach would lead to a technical discussion of implementation details. Discussion of such details is a worthy goal, because the day-to-day work of patent lawyers will continue to go on under the AIA, but that is not the goal of this Article.

The second approach is to characterize the AIA as a failed reform because of all the matters it completely fails to address, and also as a slap-dash set of changes because of the half-hearted, half-way measures accompanied by a non-harmonizing, non-standard nod towards the “first to file” international standard that actually creates a new system that is as unique as the “first to invent” system it replaces.⁴³ This might lead to

42. See generally BRUCE SPRINGSTEEN, *57 Channels and Nothing On*, on HUMAN TOUCH (Columbia Records 1992) (lamenting the difference between quantity and quality in reference both to television channels and personal relationships).

43. Since 1989, Canada’s Patent Law has had statutory language very like that in the AIA. See generally note 69 *infra*. There may be yet other nations embracing this variation, but it seems fair to call it a “non-standard” first-to-file and to call the resulting “first to declare” system unique to those few who embrace it. The element of uniqueness in the “first to declare” variant comes from the ability to use the one-year grace period not only as a shield to the inventor (so that the inventor’s own prior disclosure is not counted as prior art to bar issuance of that inventor’s subsequently filed application), but as a sword to bar the issuance of a patent to another inventor who was the first-to-file (the “sword” operates by deeming the first-to-file to have “derived” the invention from the person who was “first to declare”). By making the invention available to the public prior to any

a reductionist, almost cynical view. It is tempting to take a reductionist approach and to see the Act as an incoherent aggregation of passable provisions remaining after six years of inconclusive wrangling in successive sessions of Congress that eliminated any overarching plan even on technical changes. This second, or reductionist, approach would lead to some ironic, and perhaps constructive, criticism. I have done my best to avoid getting mired in that swamp.

Yet a third approach takes a more radically hopeful view of the Act. What if Congress, aware of the problem of bad patents, suspicious of business method patents, fully apprised of the inherent problems embedded in the patent law, seriously were laying the groundwork for substantial reform?

I have attempted to balance the first two approaches before concentrating on the third. For the purpose of neither over-praising nor over-criticizing the AIA, I have simply grouped the thirty-seven sections of the AIA by counting them off and summarizing them in groups of ten each, with a last group for the remaining seven sections. At the same time, I have insulated the rest of this Article by placing the summary in Appendix A.⁴⁴ I believe it is important to memorialize the Act itself, in order not to overlook its almost comical aggregation of peculiar pieces in years hence when all that will be immediately apparent will be the codification of discrete portions of the AIA in scattered sections of the Patent Act.

But having done that, it is important to move on to the third approach to the Act. What if Congress really were serious, not simply posturing and preening? What if this AIA truly is, or was actually intended to be, as comprehensive as Congress claims? The third approach is the one I am exploring, but before getting to the third approach, I will address the other approaches, very briefly and just to get both the technical triumphalism and the reductionist cynicism out of the way, in this subsection B. Then because I am most interested in the third approach, the notion that Congress was serious, I will develop the consequences of that perspective at the end of this subsection and in subsections C and D below.

The Reductionist Approach (the AIA as a failed reform). The reductionist will note, with ironic gratitude to Congress, that the new act now provides for subparagraph designations in the previously

filing by anyone, the first declarant not only remains eligible to receive a patent upon a filing within the grace period, but also cuts off another inventor who was first to file.

44. The discussion in this section of this Article is qualified by the additional summary contained in Appendix A.

undesigned subparagraphs of section 112⁴⁵ (and also in the previously undesigned subparagraphs of sections 116, 184, 251, 253, 256, and 282).⁴⁶ After almost 60 years of referring to 112, paragraphs 1-6 (calling them the first, second, third, fourth, fifth, or sixth unnumbered paragraph as a matter of inside knowledge), it will be an historic change finally to create statutory provisions that might be cited more readily (though as alphabetically designated subparagraphs—(a), (b), (c), (d), (e) and (f)—rather than numerically designated as informally done before).

Likewise, the reductionist will note, with some mild interest, that Congress has provided for a number of studies and programs. There will be a study on implementation (§ 26),⁴⁷ a study on genetic testing (§ 27),⁴⁸ an ombudsman program for small business concerns (§ 28),⁴⁹ a study to establish methods for studying the diversity of applicants (§ 29),⁵⁰ a study on international patent protection for small businesses (§ 31),⁵¹ a *pro bono* patent program (§ 32),⁵² and a study of patent litigation (§ 34).⁵³ If there were any doubt whether the patent laws actually provide incentives for increasing employment or progress in the useful arts, and granting that studies and programs might themselves promote jobs if not growth or productivity, here at least is a tangible contribution of the AIA to the goal of increased employment.

Moreover, the reductionist will notice that Congress has made provisions, potentially, for setting up as many as four satellite Patent offices (§ 23),⁵⁴ one of which is designated for Detroit, the home district of a Congressman long associated with the Committee on the Judiciary

45. America Invents Act, Pub. L. No. 112-29, sec. 4, 125 Stat. 284, 296 (2011) (amending 35 U.S.C. § 112). See Appendix A, text at note 243.

46. *Id.* at 333-35 (§ 20) (amending Patent Act, §§ 116, 184, 251, 256, & 282). See *infra* Appendix A, text at note 265.

47. *Id.* at 338 (§ 26).

48. *Id.* (§ 27).

49. *Id.* at 339 (§ 28).

50. *Id.* (§ 29).

51. *Id.* (§ 31).

52. *Id.* at 340 (§ 32).

53. *Id.* (§ 34).

54. *Id.* at 336-37 (§ 23). As this article goes to press, the Director of the U.S. Patent and Trademark Office has announced plans to open regional offices in or around Dallas, Denver, and the Silicon Valley, in addition to the already designated satellite office in Detroit. See U.S. Commerce Department to Open Four Regional U.S. Patent Offices That Will Speed Up the Patent Process and Help American Businesses Innovate, Grow, and Create Jobs (July 2, 2012), available at <http://www.commerce.gov/news/press-releases/2012/07/02/us-commerce-department-open-four-regional-us-patent-offices-will-speed>.

(§ 24).⁵⁵ There is also a provision that calculates the 60-day period for application of patent term extension in a particular way (§ 37).⁵⁶

The Technical Approach (the AIA as a successful and substantial set of changes). Simultaneously, and contrary to the reductionist, the technically minded will celebrate that Congress has converted the U.S. patent system into something very like a first to file regime, thereby joining the rest of the world (§ 3).⁵⁷ The AIA also sets up derivation procedures, reforms the inventor's oath, changes prior user rights, provides for some post-grant review, authorizes some third party submission of certain prior art, establishes a mechanism to cure certain instances of failure to disclose during examination, polices some business method patents, and invalidates a few other business method patents, and adds similar fixes.⁵⁸

Anomalies. But, finally, both the technocrat and the reductionist will notice a number of anomalies, related to the hybrid first to file and to the so-called business methods. There are no fewer than three separate "sense of Congress" provisions. And not once, but twice, Congress explicitly flinches in response to the so-called business method (or mental steps) patents.

Congress declares its sense, first, that its conversion of American patent law from first-to-invent to "first-inventor-to-file" will promote the progress of "science and the useful arts" (§ 3).⁵⁹ Because this language quotes the Constitutional language, it is likely special pleading to anticipate any claim that first-to-file might possibly be unconstitutional.

Next, Congress declares its sense that the conversion of American patent law from first-to-invent to "first-inventor-to-file" is designed to promote international harmonization (§ 3).⁶⁰ If we grant the inference that international harmonization may promote progress in science and

55. *Id.* at 337 (§ 24) (Representative John Conyers, from Michigan's 14th Congressional District). The Detroit office will be named for Elijah McCoy, *see infra* text at note 271.

56. *Id.* at 341 (§ 37). This is the provision, sometimes called "the dog ate my homework" clause, that was somewhat controversial. *See, e.g.,* Jeff Sessions & Tom Coburn, *Dear Colleague Letter*, Sept. 7, 2011, available at <http://www.hpm.com/pdf/blog/ANGIOMAX%20-%20Sessions-Coburn%20Dear%20Colleague%209-7-11.pdf> (letter from two senators characterizing section 37 as "a special interest matter" that "cannot be justified"). *See infra* note 291.

57. America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 296, at 285-93 (2011) (§ 3).

58. *See infra* Appendix A.

59. America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 296, at 293 (2011) (§ 3(o)), but perhaps accidentally undoing the 'grammatical hypothesis' that had for generations separated the two terms: progress in "science" referring to the purpose of copyright, and progress in the "useful arts" referring to the purpose of patent law. *See infra* Appendix A, text at note 240 (discussing the "grammatical hypothesis").

60. *Id.* (§ 3(p)). *See supra* note 9.

useful arts as this nation more nearly matches the international system, this, too, might be thought to buttress the claim that the conversion is consistent with the Constitutional purpose, at least indirectly.

There is yet a third sense. Congress declares the patent system should promote “industries” to develop “new” technologies that “spur growth and create jobs” (§ 30).⁶¹ Promoting job creation and economic growth might be a consequence of promoting the progress of the useful arts by securing limited rights to inventors; but it is an interesting gloss on the Constitutional purpose to place job creation in equal dignity with novelty itself (and in so doing to refer to “new” technologies rather than to “inventors” and their “discoveries”—not mentioning “non-obviousness” but only novelty). In stating this third sense, Congress goes on to declare the patent system should protect “small businesses and inventors” from “predatory behavior” (§ 30)⁶² because such behavior “could result in the cutting off of innovation” (§ 30).⁶³ This is a declaration of concern against some undefined predatory behavior practiced against small businesses and inventors. Because Congress has taken steps in the AIA to oppose derivation, and to enhance the opportunity to introduce prior art during examination, it is a fair conclusion that at least those categories—behavior that obtains patents on subject matter derived from another person, or patents that should have been rejected on prior art grounds during examination—constitute predatory behavior.

As to the so-called business method patents, Congress takes two bites (or nibbles). The first nibble “deems” the subject matter of any business method involving “tax strategies” to be within the prior art (§ 14).⁶⁴ Thus, without declaring these to be non-eligible subject matter, Congress “deems” them to lack novelty, and hence not patentable. The second nibble calls upon the Patent Office, within one year after the date of enactment of the AIA, to establish a special, but transitional, proceeding to review the validity of those already-issued business method patents that have to do with “financial products” (§ 18).⁶⁵ Accordingly, without declaring business methods generally to comprise non-eligible subject matter, and without defining them, Congress charges the Patent Office with taking another look at a subset of business methods, presumably to reconsider novelty and non-obviousness. In

61. *Id.* at 339 (§ 30). *See supra* notes 10 & 15.

62. *Id.*

63. *Id.*

64. *Id.* at 327 (§ 14).

65. *Id.* at 329 (§ 18).

both cases, Congress says that it expresses no view whatsoever on the fundamental, and logically prior question of patent eligibility of business methods. Of course, Congress might be presumed to know that the last time it tinkered on the margins of business methods, a majority of the Supreme Court inferred that Congress thereby acquiesced in the prior judicial opinions that had held such patents to be within the scope of “methods” as generally recognized in the Patent Act.⁶⁶

These anomalies—three senses of Congress, and two ritual genuflections in the direction of business methods—pose an interesting question of interpretation. Certainly, a reductionist worried about failed reform might claim that these provisions are no more serious than the provision of a satellite office in Detroit, or that they are essentially meaningless blather not worth the time to read, much less to study. But what if Congress actually were serious? It is a fact that Congress has made a substantial change to U.S. patent law by converting from the traditional first-to-invent to something else. Against that indisputable fact, perhaps the embedded senses of Congress together with the treatment of business methods can actually yield a significant invitation to reconsider some of the theoretical underpinnings of patent law.

I will, therefore, abandon this reductionist view of the AIA, and will assume a different perspective in the following sections. In the remainder of this Article, I will presume that Congress is quite serious. That is, let us assume that, despite omitting to address a number of fundamental issues in patent law, Congress actually has not only intended, but has enacted a substantial reform, beginning with its core transformation of the traditional first-to-invent standard. It is a perhaps unexpected transformation because it does not convert to a conventional first-to-file, but to something different. Congress calls it the *first-inventor-to-file*. I call it the *first-inventor-to-declare*, and that is what I will discuss next.

C. What it Has Begotten: First Inventor to File, plus a one-year, one-way Grace period, plus Derivation equals “the First Inventor to Declare”

Predictably, the new first inventor to file system of the AIA has attracted much attention. Professors Rantanen and Petherbridge remark that in the immediate aftermath of its passage, scholars have focused “with almost laser-like exclusivity” on the AIA’s “imposition of a first-

66. *Bilski v. Kappos*, 130 S. Ct. 3218, 3228 (2010). See *infra* Appendix A, note 257.

to-file or first-to-publicly-disclose system.”⁶⁷ Professor Chisum illustrates the new provisions, and the problem of the one-year grace period, accompanied by extensive discussion and a hypothetical example.⁶⁸ Abrams and Wagner look at the impact of Canada’s conversion from first-to-invent to first-to-file with empirical data suggesting a negative impact on small inventors.⁶⁹ Yet other commentators, including Miyagiwa and Ohno,⁷⁰ Rondeau,⁷¹ and Takenaka,⁷² have observed that the AIA’s version of first-to-file, with a grace period, is not the same as, and does not harmonize with the first-to-file system of the rest of the world.

Indeed, rather than harmony, the AIA has created its own form of disharmony (harmonizing the United States with Canada, but not with the rest of the world). Because of its potential importance to my theme of real reform, I will summarize the controversy, and the new section

67. Jason Rantanen & Lee Petherbridge, Commentary, *Toward a System of Invention Registration: The Leahy-Smith America Invents Act*, 110 MICH. L. REV. FIRST IMPRESSIONS 24 (2011) (avoiding that “myopia” by addressing, instead, some problems with the new supplementary examination mechanism). Rantanen and Petherbridge have participated in a debate on the AIA, including their negative assessment of the conversion to first-to-file. See Jason Rantanen, Lee Petherbridge & Jay P. Kesan, Debate, *America Invents, More or Less?*, 160 U. PENN. L. REV. PENNUMBERA 229, 230-31, 232 (2012) (criticizing the “first inventor to file” centerpiece of the AIA on theoretical-empirical as well as upon romantic and psychological grounds).

68. Donald Chisum, *Priority Among Competing Patent Applications Under the America Invents Act*, Soc. Sci. Res. Network, Working Paper No. 1969592 (Dec. 5, 2011), available at <http://ssrn.com/abstract=1969592>.

69. David S. Abrams & R. Polk Wagner, *Poisoning the Next Apple? How the America Invents Act Harms Inventors*, 65 STAN. L. REV. (forthcoming 2012), available at <http://ssrn.com/abstract=1883821>. As in the America Invents Act, Canada’s 1989 Patent Law includes a one-year grace period, *id.* at 12-14, so that Canada’s transition from first-to-invent to first-to-file is “in a broad sense, identical” to the American transition, *id.* at 14. (“In their transition to first-to-file, both nations retain a flavor of the [first-to-invent] system through a disclosure exception.”)

70. See generally Kaz Miyagiwa & Yuka Ohno, *International Harmonization of the Patent-Issuing Rules* (2012), available at <http://ssrn.com/abstract=2027270> (modeling various patent race situations against different conditions of international harmonization).

71. George Rondeau, *A Hybrid System*, STARTUP LAW BLOG (Nov. 17, 2011), <http://www.startuplawblog.com/2011/11/17/%E2%80%9Camerica-invents-act%E2%80%9D-patent-law-overhaul-the-benefits-and-the-drawbacks/> (observing that “[w]hile the AIA has described the changes as an attempt to harmonize U.S. patent laws with those of most other countries, in actuality, the AIA created a new system unique to the United States”, describing the differences, and pointing out one strategy—“When foreign patent rights are not of concern, being first to publicly disclose an invention can be a winning strategy and is particularly attractive for a start-up or any company short on cash.”).

72. Toshiko Takenaka, *Harmony with the Rest of the World? The America Invents Act*, J. OF INTELL. PROP. L. & PRACTICE 2 (2011) (“Contrary to the perception of US lawyers that FITF [the AIA’s first-inventor-to-file] is a first to file, FITF is in fact a revised version of a first to invent [system].”)

102, concluding in agreement with other commentators that what Congress has wrought is something non-standard—I call it a first-to-declare system.

1. The Controversy.

The United States has from time immemorial after the first patent act of 1790 (or from the patent act of 1793), been a first-to-invent nation.⁷³ We know this because of the traditional U.S. formula, currently embodied in pre-AIA section 102(g),⁷⁴ previously worked out in judicial decisions,⁷⁵ and which has become a commonplace formula. The formula includes some terms of art that I will not define here, because they are not strictly necessary for these purposes. But the formula depends upon a basic context that is essential to understanding on the part of non-patent lawyers. The context is that applicant Able was first to file (thereby a “senior” party) but there is another applicant, Baker, who was second to file (thereby a “junior” party). What each has

73. Even this statement is not entirely without controversy. After noting that the Patent Act of 1790 was not explicit on the subject (allowing a patent to issue to the first to file, or to register, while reserving prior invention as a defense that would invalidate an asserted patent), and that the 1793 Patent Act was the first that required an inventor to provide an oath asserting that he believed himself to be the true inventor (and also the first to provide for adjudicating between interfering applications), Gene Quinn points to either the 1836 or the 1870 Patent Act as the first enactment of a more express first-to-invent standard, and points to 1873 as the year of the first patent interference/priority contest. See Gene Quinn, *First U.S. Patent Laws Were First to File, Not First to Invent*, June 19, 2011, available at <http://www.ipwatchdog.com/2011/06/19/first-u-s-patent-laws-were-first-to-file-not-first-to-invent/id=17747/>. While it may be interesting to dispute the conclusion, the exact provenance of the U.S. first-to-invent standard is orthogonal to my purpose—it is sufficient for my purposes to note that it is long-standing, and that it is generally considered to date from the earliest U.S. patent statutes—and I do no more than note that the standard, if it began in 1870 instead of 1790 or 1793 or 1836, is still some 140 years old if not some 220 years old. Regardless of how old exactly, it is of long-standing duration. I believe Quinn’s ultimate contention is that from an historical perspective the first-to-invent standard is not compelled by the U.S. Constitution (and hence that first-to-file is not unconstitutional), a question that I approach from a different perspective later in this, and in the following sections.

74. 35 U.S.C. § 102(g)(2) (2006). (providing that a junior party (last to file) may defeat a senior party (first to file) if:

before [the senior party’s] invention thereof, the invention was made in this country by another inventor [most commonly, the junior party, but not strictly limited] who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.)

75. See, e.g., *Christie v. Seybold*, 55 F. 69, 76 (6th Cir. 1893), quoted in MARTIN ADELMAN, RANDALL R. RADER & JOHN R. THOMAS, *CASES AND MATERIALS ON PATENT LAW* 236-37 (3d ed. 2009) [hereinafter ADELMAN].

filed is a patent application describing or claiming the same invention but from which one and only one valid U.S. patent will issue. While the first to file begins with a substantial procedural advantage, the junior party is not foreclosed. In a priority contest, the second to file (the junior party) may nonetheless win the contest if she bears the burden of proof to establish that she was first to invent—if she “wins the priority contest.” Here is the common statement of the rule that has made the U.S. a first-to-invent regime, and in which “first reduction to practice” (or earlier conception coupled with diligence during a critical period until the second reduction to practice) equals “first invention:”

[1] the first inventor to reduce an invention to practice wins the priority contest. [2] But if the inventor who is first to conceive the invention, but second to reduce the invention to practice, can show diligence from the time prior to the conception date of the first to reduce to practice, he will displace the first to reduce the invention to practice as the first inventor at law.⁷⁶

The contextual keys are these: (a) filing a patent application counts as a (constructive) reduction to practice and so we begin with a presumptive award of the patent to the first to file under proviso [1], but (b) an earlier (actual) reduction to practice will beat the filing date, if proven by a junior party, and (c) an earlier-still conception date coupled with diligent efforts to get to a reduction to practice during a critical period will beat an earlier filing date, and will also beat an earlier actual reduction to practice date. The whole point is that a patent may issue to a person who was first to “invent” but last to file.⁷⁷

In contrast, most of the rest of the world, and maybe all of the rest of world, is by now a first-to-file regime. This signifies simply that the patent is awarded to the first who files, regardless of who was first to invent. Able wins, and Baker has no chance to upset that result. The differences are plain, and clear. Some twenty years ago, it was already recognized that:

[a] long-standing issue in discussions on patent law reform has been whether the United States should change its patent system to conform with the manner of awarding priority of invention in other countries.

76. *Id.* at 237. This is a commonplace, routine statement of the rule, here using a basic law school casebook to indicate its uncontroversial nature.

77. I omit the daunting substantive/procedural provisions that set burdens of proof, requirements of independent corroboration, and the like. My point here is simply that a first inventor “may” win an interference proceeding, thereby displacing another person who was first to file.

The question is again a dominant issue in discussion... due to negotiations designed to achieve global harmonization of the intellectual property laws”⁷⁸

Equally clear at least twenty years ago were the advantages and disadvantages, real and perceived, commonly claimed for each system.⁷⁹ Advantages commonly claimed for converting U.S. law from its idiosyncratic first-to-invent system to the international first-to-file system include: absence of any significant practical change because most of U.S. industry, and every informed independent inventor, already acts on a first-to-file basis (in order to perfect international patent rights, which may be forfeited by adhering to the U.S. first-to-invent regime); encouragement of early filing (both to more rapidly start the clock for eventual expiration of patent rights, and also to gain early disclosure to the public of the claimed invention); decrease in complexity, length, and expense of current U.S. priority contests; and an increase in certainty and reliability of issued patents.⁸⁰

Advantages commonly claimed for retaining the first-to-invent system include: avoiding a possible disadvantage to small entities in a race to the patent office against bigger or better funded competitors; avoiding a possible glut of premature and sketchy patent disclosures in hastily filed applications; permitting a period of time within which to explore commercialization prior to undertaking the expense of filing; and avoiding a potential increase in defensive filings.⁸¹ Some of these asserted advantages assume, perhaps counter-factually, that a small entity might more easily find the relatively large resources necessary to defend or assert first-to-invent status than the relatively small resources needed to file a timely patent application. The opposite is more likely true.⁸²

78. ADELMAN, *supra* note 75, at 282 (quoting THE ADVISORY COMMISSION ON PATENT LAW REFORM, A REPORT TO THE SECRETARY OF COMMERCE 43-45 (1992)).

79. *Id.* at 283 (quoting THE ADVISORY COMMISSION ON PATENT LAW REFORM, A REPORT TO THE SECRETARY OF COMMERCE 43-45 (1992)).

80. *Id.*

81. *Id.* The first to invent might also reflect something fundamental about the American psyche, and might possibly be compelled by a certain reading of the Constitutional clause granting Congress the power to award patents to “inventors.” See U.S. CONST., art. I, § 8, cl. 8; and see *infra* notes 105-113 and accompanying text (discussing the question of constitutionality).

82. It seems inherently likely that a small inventor could more easily raise the relatively small amount of money necessary for filing a patent application early than the much greater amount of money to prove first-to-invent. See *infra* text at note 114 & Mosinghoff, *infra* note 83 (pointing out that first-to-file would probably aid small inventors for this reason, among others).

Finally, it is clear that the differences in practical outcome might well be, at least from a gross statistical viewpoint, of little moment.⁸³ These issues have been known longer than twenty years, indeed longer than forty, and perhaps as long as eighty years, and any number of individuals and groups have weighed in over the years.⁸⁴

2. New Section 102.

The AIA, in section 3, captions its regime as “first inventor to file.”⁸⁵ It is section 3 that implements amendments throughout the existing patent act that move it in the direction of first-to-file. New section 102 defines prior art in such a way and provides a one-year grace period which works in such a way, that, when joined with the concept of a “derived patent” in new section 291, and the workings of the derivation proceedings in new section 135, is designed to ensure that only an “inventor” who is first to file will be awarded a patent.⁸⁶

3. The Hybrid First to File, Coupled with a Grace Period, Derivation, and a Prior Use Defense actually results in

83. Because of the formidable presumptions, coupled with other procedural and substantive advantages accorded to the first to file, and because of the likelihood that the first to file actually was the first to invent, it is commonly said that: “[m]ore than 99.9% of the U.S. patent applications now being filed raise no dispute as to the identity of the first inventor. Even when such disputes arise, the inventor who filed first . . . prevails in a significant majority of such interferences.” ADELMAN, *supra* note 75, at 283-84. Yet the small number of cases brought, and the share of those in which a junior party prevails, might nonetheless involve inventions that are very important commercially and developed in very competitive markets in which the stakes are quite high, thereby creating powerful incentives to undertake the priority contest (the “interference” proceedings). *Id.* See also, e.g., Gerald J. Mossinghoff, *Small Entities and the first-to-invent Patent System: An Empirical Analysis*, WASHINGTON LEGAL FOUNDATION 4-6 (2005) (providing data indicating that, from 1983 through 2004, the Patent Office granted 2,456,479 utility, plant, and reissue patents on 4,500,649 applications, during which time there were a total of 3,253 two-party priority contests, apparently about 575 of which involved small entities, of whom about 286 were “advantaged” by the first to invent system, and about 289 of whom were “disadvantaged”). He asserts there is no compelling reason for small entities to favor the first-to-invent system over a first-to-file system. Indeed, he notes that a first-to-file system would actually favor small entities because the current system of forcing a small entity into a priority contest with a large and determined competitor would cost the small entity hundreds of thousands of dollars compared to the relatively small cost of filing a patent application, thereby “readily” securing priority rights in a first inventor to file system “without a major expenditure of resources.” *Id.*

84. See, e.g., Michael F. Martin, *The End of the First-to-Invent Rule: A Concise History of its Origin*, 49 IDEA 435, 437 n.5 (2009) (cataloging proposals for first to file as early as the 1930s, and including initiatives in the 1950s and 60s); Ryan K. Dickey, *The First-to-Invent Patent Priority System: an Embarrassment to the International Community*, 25 B.U. INT’L L.J. 283, 289-92 (2006) (*semble*, and with attention to relatively recent legislative proposals).

85. See *infra* note 233 (Appendix A).

86. See *infra* note 234 (Appendix A).

something different—the “*first inventor to declare.*”

The new system is clearly not a first-to-invent. It is equally true that it is not really a first-to-file. It is something different. It is a first-to-declare system. The basis for this may be gleaned from the new sections 102 and 291, proceeding stepwise as follows.

Step one: the first-to-file presumption. Under 102(a)(1), prior art comprises anything that is

patented, described in a printed publication, or in public use, or on sale, or otherwise available to the public before the effective filing date of the claimed invention⁸⁷

In addition, under 102(a)(2), prior art extends to prior-filed applications: a patent that issues from an application that has an earlier effective filing date than the claimed invention is also prior art. Accordingly, we start with a first-to-file presumption, created by operation of sections 102(a)(1) & (2).⁸⁸

Step two: the first-to-declare exceptions. There are two exceptions or limitations that transform the AIA’s first-to-file presumption into something quite different:

(a) There is a one-year window (grace period) that is both a shield and a sword. Under section 102(b)(1), a disclosure made by an inventor (or by someone who obtained the subject matter of the disclosure from an inventor) does *not* count as prior art against the inventor for a period of one year. In this respect, the grace period acts as a temporary shield, protecting the inventor against a prior art rejection based directly or indirectly on the inventor’s own public use, sale, or disclosure. But under 102(a)(1) such disclosure *will* count as prior art against all other persons.⁸⁹ Likewise, under section 102(b)(2) an inventor may antedate, for prior art purposes, a filing date under 102(a)(2) by disclosure prior to such filing date.⁹⁰ In these respects, the grace period acts as a sword, invalidating the work of other claimants to the same invention. Accordingly, the first-to-disclose not only will result in *issuance* of a patent to the inventor who first disclosed and who files within a year after the disclosure, but it also *invalidates* any patent issued to the first who filed, if filed after the date of such disclosure, and/or

87. Pub. L. No. 112-29, 125 Stat. 284, § 3 (2011) (amending § 102 of the Patent Act).

88. *Id.*

89. *Id.*

90. *Id.*

(b) a similar result is reached under section 291, because it should be the case that someone who obtains the disclosure from the inventor, or from another who obtained it from the inventor, cannot be an inventor, but will be found to have derived the invention claimed.⁹¹

Step Three: the petty priority contest under the AIA. Hence, there seems to be a realistic strategy for a sort of priority contest (I will call it a petite, or *petty priority contest* or interference to distinguish it from the current [grand] priority contests and interference proceedings), and a rubric, not wholly unlike that presently obtaining under our present first-to-invent system. That is, in a petty interference-type priority contest between a junior party (last to file) and a senior party (first to file), the operative date is not the filing date, but the declaration date, and the focus will, therefore, be upon the date of declaration.

By “declaration” I mean any event that constitutes prior art under new § 102. In particular I am including a statement or other “declaration” that would constitute prior art beyond that already included in prior art as something that is “patented or described in a printed publication” or is “in public use, or on sale.” Specifically, I am including an event that would make the invention “otherwise available to the public” within the category of “declaration.” What I have in mind would be something like a declaration posted on the Internet in such a manner as would make it “available” to the public, and anything else that would qualify.⁹² I believe it is clear that under the AIA as written, the patent will issue to:

- [1] the first party to file an application covering the claimed invention,
- [2] unless, prior to the effective filing date of the first party to file, another party (i) has declared the invention to the public by describing it in a printed publication, or putting it in public use, or on sale, or otherwise making it available to the public (an “actual declaration” by

91. Pub. L. No. 112-29, 125 Stat. 284, § 3 (2011) (new § 291 of the Patent Act).

92. See, e.g., *In re Klopfenstein*, 380 F.3d 1345 (Fed. Cir. 2004) (holding that a fourteen-slide presentation printed and displayed on poster boards for two and a half days at a conference constituted a “printed publication”). See also ROBERT MERGES & JOHN DUFFY, PATENT LAW AND POLICY CASES AND MATERIALS 423 (5th ed.) (describing an existing web site, IP.com, that encourages “defensive disclosure [as] an ideal mechanism for preventing the issuance of competitive patents” and that advertises itself as “cost effective, able to handle large volumes of publishing, and most importantly, easily accessible to patent examiners.”); and *id.* at 775-80 (describing sometimes complex strategies for preventive disclosures). The addition of the offensive provisions of the new AIA, whereby a preventive disclosure can both bar a competitor and still permit issuance of a patent (at least in the US) creates, so it seems, yet further strategic opportunity to an inventor who is first to declare by way of IP.com, or similar avenue. See Rondeau, *supra* note 71.

the “first party to declare”), and (ii) has filed a patent application covering the claimed invention within one year after the actual declaration, in which case the patent will go to the first party to declare; [3] provided however, that the first party to declare will forfeit any right to the patent if that person does not file a patent application covering the claimed invention within one year after the actual declaration, in which case *neither* party is entitled to a patent, and [4] an effective filing date will count as a (constructive) declaration of the claimed invention.⁹³

Accordingly the first to file will win, but only if no other inventor has an earlier declaration date. That much seems clear from the text of the new act. It creates, in effect, a “*first inventor to declare system*,” that puts an incentive on rapid declaration by an inventor. It still allows the antedating of a senior party’s filing date, but focuses on only those pre-filing events that are “otherwise available to the public.” If there were a need to level the playing field between large (supposedly wealthy) inventors, and small or independent inventors (supposedly not wealthy) then here it is. Without any filing of any application whatsoever, and probably simply by having a complete conception of the claimed invention followed by a description of it (or merely a description about it from which the claimed invention would be made obvious to a person having ordinary skill in the art) on the internet or other medium available to the public, the first inventor to declare will have secured a priority over the first inventor to file.

Hence, the new system is *not* a first-inventor-to-file system unless of course we recognize that the likely consequence of derivation rules under the AIA will be to negate “invention” on the part of the first person to file, whenever there is an earlier declaration by another. Under current law, there is apparently not much action under the anti-derivation section, 102(f), almost certainly because the standard as applied is very nearly theft or fraud, which is a hard thing to prove even assuming it happens very often.⁹⁴ I can well imagine that derivation under new section 291⁹⁵ will develop into a much wider inquiry into something very like access plus substantial similarity for the same reasons that a similar standard has developed under the Copyright Act.⁹⁶ For

93. See Pub. L. No. 112-29, 125 Stat. 284 § 3 (2011) (amending § 102 and §291 of the Patent Act).

94. 35 U.S.C. § 102(f) (2006).

95. Pub. L. No. 112-29, 125 Stat. 284, § 3 (2011) (adding new § 291 to the 1952 Act).

96. The Copyright Act provides the proprietor of the copyright with the exclusive right to distribute copies, to reproduce copies, and to prepare derivative works. Copyright Act, 17 U.S.C. §

copyright's "access" substitute the AIA's "otherwise available to the public." For copyright's "substantial similarity" substitute the AIA's "claimed invention" (a term newly defined in section 2 of the AIA).

Under new section 291, it would seem to follow that any declaration by an inventor that makes the subject matter of the claimed invention "otherwise available to the public" constitutes subject matter to which *all* other persons will have access.⁹⁷ Thereafter, if *anyone* should file an application (even if that person were the first to file) on a claimed invention substantially similar to the subject matter of the prior declarant, it would follow that the prior declarant, or a third party charged with infringement, should be able to make out a case of derivation by any subsequent first-filing applicant. The proof of prior declaration would deprive the first filer of the status of "inventor" altogether and would convert that person to the status of a "deriver" of the invention. Hence, by semantic legerdemain, this rekindled priority contest, in point of fact not entirely unlike the occasional results of our current first-to-invent system, will still oust some number of senior parties, simply by turning any number of first-filers into "non-inventors." It creates a new sort of priority contest and a new sort of interference-like procedure.

I have called this new thing a "petty priority contest," giving rise to a "petty interference." The petty priority contest might be contained within the Patent Office if and to the extent that derivation contest rules might be promulgated under the new § 291 to encompass such a procedure. In that event, the new proceeding might have similarities to the current [grand] interferences. Otherwise, the petty priority contest would be litigated as part of a patent infringement or declaratory

106 (a), (b) & (c). Infringement of these rights has been found when, in the absence of direct evidence of copying, there has been access plus substantial similarity. *See, e.g., Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1172 (9th Cir. 1977); *see also Three Boys Music Corp. v. Bolton*, 212 F.3d 477, 482 (9th Cir. 2000); *Ty, Inc. v. GMA Accessories, Inc.*, 132 F.3d 1167, 1169-70 (7th Cir. 1997).

97. Pub. L. No. 112-29, 125 Stat. 284, § 3 (2011) (in new § 291). The hoary copyright-access cases, and the old subconscious copying cases, may well become relevant to this sort of patent contest. *See, e.g., Gaste v. Kaiserman*, 863 F.2d 1061 (2d Cir. 1988) (unsolicited copies of sheet music sent around 1956 to the owner of the Brazilian office of Morris Albert's publisher held to have provided "access" to Albert some 15 years later); *ABKCO Music, Inc. v. Harrisons, Ltd.*, 722 F.2d 988, 997, 999 (2d Cir. 1983) (professional musician who confessed to having heard a rock and roll record in 1963 held to have subconsciously copied decades later). *But see Arnstein v. Porter*, 154 F.2d 464 (2d Cir. 1946) (uncorroborated allegations of unknown "stooges" in the hire of the alleged copier following, watching, ransacking, and combing through a composer's secret files held not sufficient to show "access", other evidence of access not tilting the scales).

judgment suit under such discovery and other rules as are generally applicable, or as might be worked out by the courts.

The petty priority contest may not have quite the same twists and turns of the grand interferences presently authorized by the current patent act and which, because of the transition rules, will still be authorized during the next twenty years, but the petty interference procedures may endure for so long as the new act remains in force. Not unlike the current first-to-invent system, the new system should continue to provide sporting opportunities at least somewhat as intriguing as under current law. Maybe the room for uncertainty will be less, because the new AIA's process of divesting the first to file will be anchored to the date of a declaration that makes the invention "otherwise available to the public" rather than anchored to the often secret date of the reduction to practice or the almost always secret date of conception of an invention followed by diligence during the critical period under current law. But the difference is more nearly one of degree than one of kind—under the AIA, it will still be possible to overthrow the claim of a person who was first to file.

The prior use defense⁹⁸ only confirms the value of an early declaration date. It should be clear that the "first to declare" system might fundamentally reverse much of current patent practice. Rather than, for example, discouraging an inventor from accepting speaking engagements at professional conferences until after a patent application is on file (necessary at present, not to protect U.S. patent rights, but to protect foreign rights), counsel might instead urge such an early declaration to preserve U.S. priority and to wreck the chances of anyone else who might be first to file.⁹⁹ It could also have a reciprocal effect from outside the United States. This disharmony will continue to disrupt U.S. inventors who seek to gain patent rights outside the United States, and will continue to vex non-U.S. inventors who seek to gain patent rights in the United States. While Canada and other nations and regions also have a grace period that acts as a shield,¹⁰⁰ the U.S. adoption may

98. See *infra* text accompanying notes 244-245 (Appendix A).

99. See *supra* notes 71 & 92. Of course, the first to declare might simultaneously file a provisional or other application but that would be a trivial device, already available. What the AIA innovates is a method by which, having filed nothing at all, the first to declare but last to file might not only block others but also obtain a U.S. patent under a nominal "first to file" system.

100. See Takenaka, *supra* note 72 (comparing the grace period of the AIA to grace periods provided in the European Patent Convention and the Japanese Patent Act); Abrams & Polk, *supra* note 69, at 12-13 (referring to the Canadian grace period).

trigger renewed interest in using the grace period as a sword.¹⁰¹ The new act does not harmonize. It simply disharmonizes in a different manner.

D. *Anomalies*

There are a number of anomalies worth emphasizing one more time.¹⁰² *First*, Congress has not directly faced up to the so-called business method patent, but has nonetheless addressed the subject obliquely in at least two provisions of the Act. *Second*, Congress has indicated by express reference in its legislative history that it is, not by inference, but by direct acknowledgment, aware of and generally supportive of a half dozen Supreme Court decisions, including one that eliminated the nearly automatic or presumptive injunction for infringement of valid patents, and one that found Congress by its previous acquiescence has already accepted the validity of business method patents. *Third*, Congress has, surprisingly, endorsed the use of the patent system, not indirectly but directly, as a vehicle for job creation, growth, and economic progress, and tied to “new” technologies. Job creation is expressed as a direct goal of the patent system, which previously has been lauded for providing an incentive for inventors. I will have more to say about these anomalies later.

E. *Evaluation: incomplete*

1. Some Good and Bad Reviews.

There are many good reviews already out, and there are already many practitioners’ guides, largely based on the first or technical approach to the AIA, as a successful set of changes.¹⁰³ There are many bad reviews already out, and some dire warnings, many of them based on the second or reductionist approach to the AIA, as a failed reform.¹⁰⁴ I can predict there will be more of each. All that is required is a periodically updated literature review until such times as the Court of

101. Canada’s statutory grace period might also act as a sword. See Abrams & Polk, *supra* note 69, at 12-13 (remarking upon similarities between the AIA and the Canadian grace period by which a later-filer could win priority if she publicly disclosed); Jim Longacre, *35 USC § 102 and the First to File System*, LEXISNEXIS EMERGING ISSUES ANALYSIS, Oct. 2011 (for the proposition that the grace period “creates something of a ‘first to publish’ system...”)

102. See *supra* text accompanying notes 59-66 (introducing these anomalies).

103. See, e.g., *supra* notes 5, 67-72 (including some generally supportive reviews).

104. *Id.* (including some generally negative comments). Chisum, *supra* note 2 (pointing out a number of problems that the AIA fails to address).

Appeals for the Federal Circuit, and perhaps the Supreme Court weigh in more finally to resolve the questions. In the interim, it may be more useful, more realistic, and less speculative to ponder the existing equilibrium between the opposing poles. I contend, in the next subsection, that many of the potential issues are plausibly in equilibrium until our judges deliver their opinions. In doing so, I am proposing the third perspective, that there just might be something serious going on, providing a framework for comprehensively changing the patent act just as Congress has claimed it has done.

2. An Equilibrium (maybe unconstitutional, maybe unwise, but what of that?).

It would seem there is equilibrium between the first reviews in respect of claims that the AIA is unconstitutional, unfair, or insufficiently harmonized, and those that claim the opposite. Here is a brief overview.

(a) *Unconstitutional (or not)*. Inventorship (or discovery) is a Constitutional requirement.¹⁰⁵ While it may be a fair question whether a first-to-file system is permitted by the Constitution, or whether on the other hand a first-to-invent system is fairly inferred as a constitutional requirement, the form of the argument itself seems rather straightforward.

On the one hand, if we define, refine, or redefine inventorship (or discovery) in the spirit of copyright's notion of originality, which by analogy would permit multiple independent originator-inventors, then all would be well. Accordingly, if both Mr. Able and Ms. Baker originate the same claimed invention, if neither has derived from the other, if there is no anticipating prior art under section 102, if the claimed invention is non-obvious, and so on, then it is trivially easy to say that we have, in fact, two inventors: A and B. Then, given two inventors, it would seem the Constitution could be indifferent between them. The policy problem is to figure out whether to grant a patent to both, to neither, or to one or the other (but not both). If to one or the other, then the grant might go to the inventor who was first to conceive, or the first to reduce to practice, or the first to declare, or the first to file, and in any of these cases, with or without various qualifications and conditions. But at the end of the

105. U.S. CONST. art. I, § 8, cl. 8 (“[Congress shall have 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*;”) (emphasis added).

day, and on this definition, the patent will have been granted to an “inventor.” Therefore, the constitutional requirement is satisfied (QED).

A list of plausible formulations may help to demonstrate a sequence of conceivable, alternative definitions of “inventor,” each succeeding definition being cumulative of certain prior definitions (in this hypothetical exercise, we will assume for purposes of discussion that all we have before us is the Constitutional language, with a freedom to legislate in its light).¹⁰⁶

Alt. A. Originator: one to whom the claimed discovery owes its origin; not copied from someone else, but perhaps copied or derived from nature, or a naturally occurring phenomena, or a law of nature; a subjective discovery. In an earlier day, it may have been permissible to copy an invention outside the jurisdiction, as a means of importing technology.

Alt. B. Author: an originator with a further characteristic, viz.: one who has also contributed a modicum of creativity or ingenuity; some personal, individual intelligence; not simply copying straight from nature, naturally occurring phenomena, or laws of nature (or from basic building blocks) already in the public domain; a subjective discovery coupled with a certain amount of creativity.

Alt. C. Novelty Discovery: an author with a further characteristic, viz.: one whose claimed discovery is absolutely novel: new, not anticipated; an objective discovery.

Alt. D. Novelty-Plus: a novelty discovery but with “something” more. The “plus” factor might be immediate commercial success, it might be a socially desirable but costly solution that would not have been undertaken without the promise of a patent-enhanced return on investment; or it might be “jobs” created as a result of some “new” technology.

Alt. E. “Inventive” or Nonobvious Subject Matter: a novelty or novelty-plus discovery with a further characteristic, viz.: one whose claimed subject matter is, for lack of a better word, “inventive” as the result of genius or luck; or it might suffice if it is simply not obvious to a person having ordinary skill in the art to which it pertains; a non-obvious invention.

Alt. F. The Inventor Who is First to Declare: a [nonobvious or any other sort of] inventor with a further characteristic, viz.: the one who is the first person to declare the invention, either by “making it

106. The table could be expanded, and could be recast as a chart. For convenience, I have suggested [in brackets] that each of alternatives F (first to declare), G, (first to file) and H (absolute first to invent) depends from alternative E (the nonobvious invention). Any of them could just as easily depend from alternatives C or D (or any other basis).

otherwise available to the public” or by making it deemed available by filing a patent application.

Alt. G. The Inventor who is First to File: a [nonobvious or any other sort of] inventor with a further characteristic, viz.: the one who is the first person to file a patent application covering the invention.

Alt. H. The Absolute (Authentic) First Inventor: a [nonobvious or any other sort of] inventor who is the first person to have made the original, novel or nonobvious invention; absolute first invention based upon proof of the actual date of the invention, based upon actual or constructive reduction to practice, conception, and diligence.

Thus, if the Constitution merely requires an “inventor” in the sense of: originator/author-inventor (alternatives A or B above), or in the sense of novelty-discovery (alternative C above), novelty-plus or inventive/nonobvious-subject matter (alternatives D and E above), or under other possible definitions, including first to declare or first to file (alternatives F and G)—that is, any definition other than alternative H above—then there is nothing unconstitutional about recognizing multiple discoveries-inventions. It is textually possible to have multiple novelty inventors or multiple non-obvious inventors, all depending on the meaning attributed to the Constitutional language. And if there be more than one person eligible, it would seem there is nothing unconstitutional about privileging one or the other. If we should decide to talk about “inventor” in the sense of first-to-declare, as effectively enshrined in the AIA, then there will be one and only one inventor who declared first and, so the argument would go, there would be nothing unconstitutional about awarding the patent to that one. This would always be a person who, after all, is contributing to the progress of the useful arts by first declaring the subject matter of the invention, and thereby making it available to the public. This is precisely one of the traditional incentives of the patent system from the beginning.

Of course, and on the other hand, if “inventor” necessarily and essentially signifies something like the absolute first inventor in the sense of alternative H above, incorporating not only the categories of “available to the public” prior art but also all of that secret prior art which is not available to the public—if there can, in the nature of things, be one and only one absolute and true inventor of any invention, and if that is what the Constitution signifies by “inventor”—then a Constitutional patent can issue to one and only one person, because one and only one person is the authentic, absolute inventor. While this might seem a rather natural reading of the word “inventor” and while it has a long-standing notional contrast with the different standard of

“authorship” long established on the copyright side of the ledger, it might not be Constitutionally required.

It is this last possibility that justifies the hypothetical investigation of the standard, leading to the various alternatives. Indeed, the Constitution’s use of the expression “discoveries” (instead of “inventions”) certainly suggests that novelty-discovery (Alternative C) or novelty-plus (Alternative D) might well suffice, just as non-obviousness does, instead of “inventiveness.” Congress and courts by looking for “non-obviousness” or “inventiveness” may have been content traditionally to require more than the Constitution might. The AIA could very well put the issue in play in a way that is unprecedented.

It may be that Congress has all but declared that it is now the sense of Congress to open wider the doors, not only to promote “new” technologies to create jobs and growth, but also to accept patents more candidly based on novelty: either novelty alone or novelty “plus” some factor other than non-obviousness. If so, this would require a rebalancing of remedies and other incidents of an issued patent.¹⁰⁷ That, in turn, would require a rethinking of the patent system itself. Real reform may result in several classes of patents, a range of patent terms, and a range of patent remedies dependent upon the class.

The AIA does ingeniously attempt to thread the needle on the narrow issue of first-inventor-to-file, and it may well succeed in passing traditional Constitutional muster. However, it seems to go further. The anomaly previously pointed out—the fact that Congress expresses its “sense” not once, not twice, but three times in the AIA—coupled with the fact that Congress has declared itself to have just accomplished the most comprehensive patent law reform since the enactment of the 1952 Patent Act supports a more far-reaching hypothesis.¹⁰⁸ Let us grant that Congress believes the first-inventor-to-file regime does promote the progress of science and the useful arts, that it does harmonize internationally, and that it will promote industrial policy by creating jobs and decreasing predatory practices contrary to the interests of small businesses.

If so, and if current law, and the “first-to-invent” regime is merely a long-standing legislative choice that selected alternative H instead of one of the other Constitutionally eligible choices,¹⁰⁹ then the new law not

107. This is a first key to real patent reform, embedded in the AIA. See Appendix B, *infra* (rebalancing these factors, in a proposed outline of a quasi-restatement of patent law).

108. See *supra* sections I.A-I.B.

109. See generally *supra* note 73 (reporting an argument to the effect that first-to-invent was not always part of the U.S. patent system, though it certainly is of long-standing precedent).

only invites, but may well demand a new perspective fully to support the new policy choice. My point is that there is no reason to move so timidly as to suppose that Congress must now intend to set the bar at alternative G (the orthodox international first-to-file). To the contrary, Congress clearly did not move so slightly, but has gone at least as far as alternative F (its non-harmonized first-inventor-to-file coupled with a defensive and offensive grace period). But there is no need to suppose that Congress still considers non-obviousness to be the salient feature. If Congress simply wants to incentivize jobs created by new technologies (§ 30) then there is no need to continue to ignore simple novelty inventions/discoveries.

To be sure, the courts may well have required “something more” than novelty (and perhaps as high as “genius”) for quite some time if not from the beginning, and Congress certainly did require something more than novelty when it added § 103 (non-obviousness) in 1952. But perhaps Congress has never before made it quite so clear as it now has in § 30 of the AIA that Congress has determined to use the patent system to promote “new” technology to create jobs. A second look at the Constitution might reconsider the fact that the most nearly operative language permits Congress to grant to “inventors” the exclusive right, for limited times, to their “discoveries.” While an “invention” might be thought to comprise something substantially more than novelty, a “discovery” may very well comprise nothing more than novelty plus a modicum of originality. In the AIA, Congress may have just indicated that both novelty inventions and discoveries are patentable, changing its long-standing acquiescence in the judicial decisions prior to 1952, and its own preference embedded in the 1952 Patent Act, for patents of non-obvious invention over novelty patents.

It is well known that British law reacted against sovereign rewards of monopolies on commodities, staples, and manufactured products that were not “new.”¹¹⁰ So also, Thomas Jefferson famously scoffed at awarding patents on products that would appropriate from the commons things already known, and principles inherent in nature.¹¹¹ But to reject patentability on things already known, or that are principles of nature, is compatible with favoring patentability for things that are novel, without

110. The Statute of Monopolies, after proscribing patents on commodities and the like, carves out the exception for valid “letters patent and grants of privilege for the term of fourteen years or under” for the sole working or making of “any manner of new manufactures within this realm.” 21 Jac. 1, c.3, s. 6 (Statute of Monopolies) (1623).

111. Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), *in* 13 THE WRITINGS OF THOMAS JEFFERSON 326, 334–35 (Andrew A. Lipscomb ed., 1903).

necessarily leaping beyond novelty to something like non-obviousness. It is at least interesting that Abraham Lincoln, so often invoked for his praise of the patent system as itself an invention that “added the fuel of interest to the fire of genius, in the discovery and production of new and useful things” gives examples of significant discoveries that seem very nearly obvious. Though he may well have been speaking loosely, he did speak twice and with a gap of some nine months between his patent lectures. Among important discoveries, he cited not only the invention of riding on an animal (a horse, then a camel, then a donkey) but also the improvement comprising the discovery that you could load an animal, not with a rider, but with a load to be carried. In his remarks, he seems to distinguish discoveries from inventions, not always consistently, but still in a manner that seems to credit discovery itself as worthy of reward.¹¹²

If the AIA gets us rethinking the Constitutional concept of “invention” in the context of first-to-invent, and leads us to embrace either alternative F (first to declare) or G (first to file) as permissible, there is no reason to stop there. If Congress has chosen to rethink the Constitutional concept of “invention” yet further in the context of promoting new technologies for job creation, there may be reason to embrace alternative C or D (novelty/discovery or “novelty-plus”) and to accept mere novelty or novelty plus something less than non-obviousness as within the Constitutional grant. If so, there would almost certainly have to be some corresponding rebalancing. Perhaps a rebalancing for novelty patents would require shorter duration for different classes of patents, and perhaps it would reserve injunctive relief and tailor other remedies accordingly.¹¹³

112. Lincoln’s “First Lecture on Discoveries and Inventions” was given on April 6, 1858 at Bloomington before the Young Men’s Association. Abraham Lincoln, II *THE COLLECTED WORKS OF ABRAHAM LINCOLN* 437 (Ray Basler ed., 1953) (“Man is not the only animal who labors; but he is the only one who improves his workmanship. This improvement he effects by Discoveries and Inventions. His important discovery was the fact that he was naked; and his first invention was the fig-leaf apron.”). Lincoln’s “Second Lecture on Discoveries and Inventions” was given on February 11, 1859 at Jacksonville, and repeated a few days later in Decatur and again in Springfield on February 21, 1859. Abraham Lincoln, III *THE COLLECTED WORKS OF ABRAHAM LINCOLN* 356 (Ray Basler ed., 1953) (concluding by referring to the invention of the patent laws themselves, in England in 1624, as one of the most important of all inventions: “Before then, any man might instantly use what another had invented; so that the inventor had no special advantage from his own invention. The patent system changed this; secured to the inventor, for a limited time, the exclusive use of his invention; and thereby added the fuel of interest to the fire of genius, in the discovery and production of *new* and useful things.”) (emphasis added). See *infra* text at notes 135-139 (giving additional examples from Lincoln’s lectures).

113. This is a second key to real patent reform. See Appendix B, *infra* (rebalancing in a proposed quasi-restatement, taking current law into account).

This is an interesting thought question. But there is really nothing more to say about the particular issues of first-to-file until some judge conjures up some reason to prefer one reading over the other and thereby answers the question. If the first-to-declare (or, as the AIA labels it, first-inventor-to-file) is constitutional, it is; if it isn't, it isn't. It all depends on what the Constitution means or what the Court of last resort says it means in respect of an "inventor" or a "discovery." Call it a push, at least prospectively.

(b) *Unfair (or not)*. The first-to-file system is said, by some, to be unfair to the "small" or "independent" inventor. Per hypothesis, this must have been the person who was first to conceive but second to file (the junior party) under current law. Such a person, if we were to weigh the situation in the abstract, must be, so it would seem, further characterized as: (1) unable to find the relatively small amount of money to file a patent application rapidly (unable, that is, to gain the status of first to file), but (2) able to find the relatively large amount of money to initiate, sustain, and win an interference as junior party, or successfully to defend as senior party against another who claims an earlier invention date, having previously learned how to create, and continuously thereafter to keep the sort of objective, corroborated evidence of conception and diligence sufficient to meet the burden of proof.

It is not impossible that some small inventors would in fact much more easily and economically become senior simply by filing first and fast under a genuine first-to-file system. If so, then these are substantially advantaged by not having to bear the expense of withstanding a priority challenge from a "bigger" (and supposedly more wealthy) applicant. On the other hand, it is not impossible that some "small" inventors might be utterly impecunious at one moment and so not be able to file rapidly (and so lose the opportunity to become the senior party), might find some money at a later point and so be able to file eventually (becoming a junior party), and then find a very considerable amount of money (sufficient to fund an interference as the petitioning junior party). It could be. It is not surprising that the empirical evidence seems to indicate there are not many interferences, and those that do take place seem no more to "advantage" the small inventor than to disadvantage the small inventor.¹¹⁴

114. See *supra* note 83 and accompanying text. *But cf.* Abrams & Wagner, *supra* note 69 (contending that the shift in Canada to a similar first-to-file system resulted in fewer patent applications by small inventors).

Moreover, since the hybrid system of the AIA is actually a first-to-declare system, the truly impoverished can simply declare the complete conception, or enough of it to make the (subsequently) claimed invention obvious, thereupon making it available to the public, and thereby gaining priority over subsequent first-filers for the span of one year within which to commercialize the invention and find resources for filing a patent application, and in any event perfecting a defensive position against the first-filer, and a defense that should be available to third parties against the first-filer (as a person who will be deemed to have derived the invention). This seems pretty easy from the perspective of the “small” inventor. It seems easier by far than the attempt to win an interference proceeding under the current system, and at the same time easier than filing even a provisional patent application under either the current system or under the new AIA. Call it a push, at least prospectively.

(c) *Harmonized (more or less)*. The first-to-file system is an international standard. Constitutional or not, fair or not, it happens to be as nearly universal among the nations of the world as anything of this nature might be. Report after report, study after study, decade after decade, the proposal to shift to first-to-file has been pending as long as those of us still alive can remember.¹¹⁵ If it really is a push on questions of policy, preference, prudence, fairness, and constitutionality, and if it really does create at least some additional measure of certainty, and if it really does reduce some expenses for at least some of the parties, then the bad reviews would seem misplaced.

A small problem, or perhaps a large problem, might be that the AIA does not, in fact, harmonize with the rest of the world but rather creates a petty interference regime under a first-to-declare rubric in place of the grand interference regime under our former first-to-invent system. This may be a smaller disharmony than before, but it still is out of tune with the first-to-file systems said to be standard in the rest of the world. Call this a push as well. It is not harmonious, but perhaps we, and the rest of the world, will grow to like it.

3. The Real Problem: Incomplete.

The real problem with the AIA is that it is fundamentally and dramatically incomplete. This is not a case in which criticism would be

115. See *supra* notes 79-84 and accompanying text.

like asking “where is the cap?”¹¹⁶ Nor is it a case in which criticism would show a willingness to “refuse to quit a shattered and tottering habitation for a firm and commodious building, because the latter had not a porch to it.”¹¹⁷ No, it is rather as if, having vociferously claimed that existing patent law has “unbearable flaws” Congress itself then ignored most of them. As Professor Chisum notes, after all of the AIA is said and done, there still remain the familiar old problems. These include novelty, non-obviousness, enablement, written description, eligible subject matter, claim interpretation, doctrine of equivalents, prosecution history estoppel, remedies, and secondary liability.¹¹⁸ Or, as he has said elsewhere: “if the AIA were a term paper submitted by a student in a patent law seminar” it would be marked “some good ideas, some muddled and unsupported ideas, poor grammar: please revise and clarify.”¹¹⁹ The AIA amounts to a prescription to cure the disease of “bad patents” prior to specifying what is so “bad” about them.

II. DESCRIPTION

(THE BAD PATENT IS NO ABUSE OF THE SYSTEM, IT IS THE SYSTEM)

In this section, I describe the problem of “bad patents” in a way calculated to appeal to a person who is not a patent practitioner or specialist. I contend that bad law makes bad patents. In part A, I provide three hypotheticals. In part B, I describe some of the standard problems, and I illustrate them concretely with the hypotheticals already given. In part C, I explain why these problems are not incidental or accidental, but constitute a systemic problem, inherent in our patent law as it currently exists. My intended audience is a general one, and it is important to bring them into the perhaps mysterious ways of the patent guild, better to appreciate the nature of the “bad” patent problem. Much

116. The cap comes from a story recounted about Churchill’s response to “nit-picking revisionist” critics: “Much of this nit-picking revisionist work is put into perspective by a story Churchill told while commenting on the press attacks during the war.”

A sailor jumped into the water at Plymouth to rescue a small boy from drowning. A week later the sailor was accosted by a woman who asked, “Are you the man who picked my son out of the water the other night?”

“That is true, ma’am” replied the sailor. “I am the man.”

“Ah,” said the woman. “You are the man I am looking for. Where is his cap?”

John Plumptre, *Lord Jenkins and Winston Churchill: The Study of History and the Practice of Politics*, Address to the Churchill Society, Nov. 2002, available at <http://www.winstonchurchill.org/learn/speeches/speeches-about-winston-churchill/the-study-of-history-and-the-practice-of-politics>

117. See James Madison, *The Federalist* (No. 38).

118. Chisum, *supra* note 2.

119. Chisum, *supra* note 68, at 87.

of this section reprises, restates, or paraphrases material I have previously published,¹²⁰ but it serves a purpose here to make more concrete the discussion of what makes a bad patent bad.

A. *What the AIA Fails to Do: Good Patents and Bad*

Let us do what Congress did not do. Let us define good patents and bad, and let us do so in a most general way that cannot be objectionable to anyone. I believe it may be granted that there must be a core that everyone who accepts the premise of any patent system at all must accept.

First, I will rely upon the consensus of “Hall of Fame” patents to suggest that there are at least some patents that must be considered “good.”¹²¹ Here are some examples, among which there must be at least one or two good patents: the safety razor, celluloid (the first artificial plastic), a calculating machine, the pneumatic tire, an ice cream freezer, and the three-way traffic signal.¹²²

Second, I will make an attempt to generalize what makes the “good” patent so good, and I will phrase it in the hypothetical mode: *If* there were ever any innovation which is (a) clearly patent eligible subject matter (a traditional machine, for example, or an industrial process that transforms a physical thing from one state or quality to another, or that is tied to a machine), (b) useful, (c) actually non-obvious and perhaps even a matter of some genius and not the subject of near-simultaneous independent invention, (d) fully described, and completely enabled, with all relevant terms clearly defined, (e) claimed in one or

120. See Thomas Folsom, *Truth in Intellectual Property Revisited: Embracing eBay at the Edge*, 2 AKRON INTELL. PROP. J. 69 (2008). I reference the prior article not to suggest that any reader of this one needs to read that one, but merely to point out that the reader may find in it a more complete treatment of some issues only briefly treated herein. My citations to myself will not be exhaustive, nor will I always indicate when I quote myself. Instead, some of my self-referencing footnotes are simply to alert the reader that there might be a more substantial treatment elsewhere. A reader might think of these related articles as forming, at least in the author’s mind, a book in serial form: I think of my self-citations as if to earlier chapters in the same book (and in a similar manner, my non-citations to myself). Cf. RICHARD A. POSNER, *THE LITTLE BOOK OF PLAGIARISM*, 64–65 (2007) (exonerating, perhaps, some self-plagiarism in the interest of developing, refining, and expanding the reach of somewhat novel ideas). I certainly have borrowed from myself two extended examples I previously set forth elsewhere. These include the jabberwock patent claim and the airplane patent claim, together with my extensive prior comments and related observations.

121. NATIONAL INVENTORS HALL OF FAME FOUNDATION, *INDUCTEES OF THE NATIONAL INVENTORS HALL OF FAME* (35th ed. 2007) [hereinafter, “Inventors Hall of Fame”].

122. Each of these examples is taken from the INVENTORS HALL OF FAME, *supra* note 121, at 129 (safety razor), 55 (celluloid), 94 (calculating machine), 125 (tire), 147 (ice cream maker), and 150 (traffic signal).

more claims that really are specific and definite and do not over-claim more broadly or more abstractly than the disclosure enables, fairly interpreted (f) after a prosecution in which all relevant prior art is made of record and so was considered by an examiner to justify the presumption of validity, (g) which is literally infringed by a device or process that maps to every element of at least one claim, and (h) in which the public interest, and the other equitable factors justify the grant of an injunction in addition to fairly calculated damages—if all those conditions obtained—then we could agree to call this one, at least, a “good” patent, and the adjudicated remedy to be correct. It ought not to be objected that these are conclusory statements because that is just the point of a hypothetical: *if* there were any innovation that clearly fell inside the core just described, *then* it would seem to follow that such an innovation, at least, would qualify as the material of a good patent.

Conversely, if not all of those conditions obtained, and especially if none of them obtained, then we could agree to call such a patent, or the litigated result, a “bad” one. There is a range of patents, and patent remedies, between those poles that are more or less good or bad, but it seems easy to agree on what makes a bad patent “bad,” worse, or worst. It is in this context that the AIA is incomplete. It simply does not address eligible subject matter, utility, non-obviousness, description, claims or claim interpretation, literal infringement (much less infringement under the judicially created doctrine of “equivalents”), the presumption of validity, or remedies. Some examples might help, and the next subsection provides some.

B. Three Hypotheticals: Patent Claims for the Non-Patent Lawyer

My intended audience includes not only patent lawyers or those otherwise familiar with the ways of the patentees by long study or practice or by having consorted with them enough so that their ways will have rubbed off, but also, and at least as importantly, non-patent lawyers. It is my observation that many non-patent-lawyers are in policy-making positions, and some of them have a hand in fashioning patent law, or reforms of it. I claim that almost all of these persons who are non-patent-lawyers concerned with the state of patent law have heard about some problems in patent law. Some of them know some of the competing solutions, but a substantial plurality lacks any concrete basis for evaluating the solutions because they do not fully understand the working details of the problem. It is my assertion that something approaching a veil prevents even the most informed non-patent-lawyer from complete communication with those who are patent lawyers. This

failure of communication leads to a range of misunderstandings about the nature of the problem and therefore about the nature of the realistic solutions. In this Article, I will raise some of the “ordinary” problems. But I will not discuss these problems in the abstract, in a manner readily understandable only by practitioners. Rather I will provide a more concrete context so that every reader will be on an equal level of understanding.

I will provide three hypothetical claimed inventions, and I emphasize the claims¹²³ so that each of the ordinary problems might be better understood. In this subsection, I am merely presenting claims without elaboration. In the subsection immediately following, I will use those claims specifically to illustrate some of the standard difficulties inherent in patent law.

1. An Interrogation.¹²⁴

There is much talk about “business methods” or “mental steps.” Suppose Nash files a patent application disclosing a way of putting prisoners into a dilemma, useful in bargaining with them. His first claim might read as follows:

1. A method of interrogating prisoners comprising the steps of:
 - (a) calculating a number of inducements:
 - a first inducement, optimal from a prisoner’s perspective, designed to gain a level of cooperation, if any, rationally expected of a prisoner fully informed of data in the possession of an interrogator,
 - a second inducement, suboptimal from a prisoner’s perspective because less generous than the first inducement, and
 - a third inducement comprising an unpleasant option compared to said first and second inducements, the third inducement designed to impress upon a prisoner a more serious consequence to the prisoner apart from one of said first and second inducements,
- said inducements being based upon a predictive model, the model taking into account a realistic possibility that a best strategy from the perspective of a plurality of prisoners (said best strategy leading to a state better than at least the second inducement) is that each of said prisoners, after assessing one of said data in the possession of the

123. Patent claims are an important category of legal writing. In this article, I will follow some, but not all, of the patent claim conventions. The language may appear somewhat stilted to the non-patent lawyer. But that is itself something that such a reader must start to understand.

124. This is based, loosely, on the “prisoners’ dilemma” and conjures the work of John Nash. See HOWELL E. JACKSON ET AL., *ANALYTICAL METHODS FOR LAWYERS* 40-47 (2d ed. 2011) (resolving the prisoners’ dilemma and discussing the Nash equilibrium).

interrogator and a set of other reasonably available information, would rationally refuse to cooperate with the interrogator,

(b) holding a first and second prisoner in a state of separation from one another, and

(c) during said state of separation explaining to each of said prisoners the second (the suboptimal) and third (the unpleasant) inducements, offering each prisoner a chance to accept the second inducement, the prisoners being made to understand the offer is limited so that the offer is open only to the first prisoner who accepts it, and is thereupon immediately revoked to the other prisoner and the prisoner who accepts must thereafter cooperate with the interrogator, said cooperation including an admission of guilt by the prisoner who accepts, and including a provision of evidence by said prisoner tending to establish the guilt of the other prisoner, thereby exposing the other prisoner to an expected consequence worse than the second inducement,

(d) said state of separation comprising the creation of a condition in which the prisoners are hampered from one of [sic. this is a convention of some patent claim drafters to introduce an “either/or” statement without using the words “either” and “or” (which might supposedly make the claim impermissibly indefinite)] effectively communicating with one another about a strategy more advantageous from the prisoners’ perspective, and effectively committing to said strategy, the interrogator thereby inducing each of the prisoners rationally to select a suboptimal strategy from the prisoners’ perspective, and thereby obtaining a result more favorable from the interrogator’s perspective than would otherwise have been rationally expected.

We might imagine a series of dependent claims more narrowly defining the method. One of these might add something like “. . . using a computer . . .” and another one might add something to the effect of: “laying out a table . . .” to manipulate or visualize the data transformations of the “predictive model” itemized in subparagraph (a) of claim 1.

We would also expect one or more independent claims generalizing away from “prisoners” and more broadly claiming a method applied to “persons” who may be induced during “negotiation of a transaction” rationally to accept an otherwise suboptimal alternative. This method might be useful in, among other things, a “business.” It might be implemented by a series of “mental steps.” It might, of course, “completely preempt” the “algorithm” claimed. And it could, rather easily, be “tied to a machine” or articulated in a manner that identifies some data that might be “transformed” into another state, thereby affecting a “non-trivial” and “post-solution” process step. Without

exactly claiming “game theory” itself as an “abstract idea” a series of well-designed claims might very well dominate a substantial portion of the useful applications of that theory.

2. The Jabberwocky.¹²⁵

There has always been a problem in patent law concerning claim “interpretation” or “construction” and it has been authoritatively held that claim interpretation is a question of law to be determined by the court.¹²⁶ But many patents must involve unusual, new, and non-obvious subject matter, and the claims might read suspiciously like gibberish or nonsense words to any person unaware of the facts needed to understand the language in question. Suppose Carol files a patent application disclosing a method of guarding a building against unwanted intruders. Her first claim might read as follows:

1. A method of securing a building, comprising the steps of:
 - (a) identifying a vulnerable entryway to said building,
 - (b) obtaining a jabberwock, and
 - (c) during a period of time commencing about a brillig, and whilst a plurality of slithy toves gyre and gimble in a wabe within a visible range of said entryway, and whilst a plurality of borogoves maintain a mimsy state, and a plurality of mome raths outgrabe within an audible range of said entryway,
 - (d) positioning said jabberwock adjacent said entryway, and
 - (e) enabling said jabberwock to extend towards said entryway one of a pair of jaws that bite and a claw that catches, with an eye of flame,
 - (f) said jabberwock being capable of one of [sic. this is a convention of some patent claim drafters to introduce an “either/or” statement without using the words “either” and “or” (which might supposedly

125. I am using “Carol” as my inventor. Her name is a play on Lewis Carroll’s last name, and the entire hypothetical is based, loosely, on Lewis Carroll’s poem, and the annotations on it that appear in MARTIN GARDNER, *THE ANNOTATED ALICE THE DEFINITIVE EDITION OF ALICE’S ADVENTURES IN WONDERLAND & THROUGH THE LOOKING GLASS BY LEWIS CAROLL* (2000) [hereinafter, *Alice*]. I have used this example in a previous Article and I appreciate that the creature is a “jabberwock” (not a “jabberwocky”) but I also acknowledge that the poem itself is commonly known as the “Jabberwocky” and spell checkers seem to favor that spelling so I will use it at least once. This illustration, and much of this entire section is taken almost verbatim from Thomas Folsom, *Truth in Intellectual Property Revisited: Embracing eBay at the Edge*, 2 AKRON INTELL. PROP. J. 69 (2008) (including a lovely reproduction of the Jabberwock at p. 106, not reproduced here). I believe the repetition of this example is useful to illustrate concretely the problem with claim interpretation, a problem that Professor Chisum characterizes as the “number one issue in the patent system today...” Donald Chisum, *Reforming Patent Law Reform*, 4 J. MARSHALL L. REV. 336, 342 (2005) (this is the article referenced, but without citation, *supra* note 21).

126. *E.g.*, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

make the claim impermissibly indefinite)] frightening and attacking a potential unwanted intruder, said intruder being unarmed with a vorpal blade¹²⁷ but potentially determined to pass through said entryway, thereby deterring said unwanted intruder from entering the building.

We might imagine that Carol had provided a disclosure, perhaps including something along these lines:

Twas brillig, and the slithy toves
Did gyre and gimble in the wabe;
All mimsy were the borogoves,
And the mome raths outgrabe.

“Beware the Jabberwock, my son!
The jaws that bite, the claws that catch!
Beware the Jubjub bird, and shun
The frumious Bandersnatch!”

He took his vorpal sword in hand:
Long time the manxome foe he sought—
So rested he by the Tumtum tree,
And stood awhile in thought.

And, as in uffish thought he stood,
The Jabberwock, with eyes of flame,
Came whiffing through the tulgey wood,
And burbled as it came!

One, two! One, two! And through and through
The vorpal blade went snicker-snack!
He left it dead, and with its head
He went galumphing back.

“And, hast thou slain the Jabberwock?
Come to my arms, my beamish boy!
O frabjous day! Callooh! Callay!”
He chortled in his joy.

We need not imagine that the words used by Carol in both the disclosure and in the claim are not entirely clear (because it is rather obvious they are not at all clear), and yet we may suppose there are various relevant sources of meaning, both intrinsic and extrinsic: the

127. It is bad form to claim a negative, but this breach of claim etiquette is included merely for effect.

dictionary for one;¹²⁸ the inventor, Carol, for another;¹²⁹ a co-inventor, Alice, for yet another;¹³⁰ and an expert in these matters for yet another version still.¹³¹ It is no use to say these are “nonsense” words that signify nothing. For one, they are not insignificant at all. For another, and in principle, the objection reaches all patents. At least some of the words in any patent that is, per hypothesis, describing subject matter that is absolutely novel and also non-obvious, and that is directed to persons having ordinary skill in the art to which it pertains must, at least occasionally, appear no less exotic to an ordinary reader than these words.

To add complicating factors, we might pose two cases. In the first case, we might suppose that these creatures, the jabberwock, the toves and borogoves, are naturally occurring, but only recently discovered. In

128. According to the OED, for example, “*slithy*” is “a variation of sleathy: Slovenly, careless . . .” OXFORD ENGLISH DICTIONARY ONLINE, <http://www.oed.com> (last visited Feb. 23, 2012).

129. Carol might testify, for example, as to this set of meanings:

Bryllg: the time of broiling dinner, i.e., the close of the afternoon.

Slythy: smooth and active.

Tove: a species of badger, having smooth white hair, long hind legs, and short horns like a stag; lived chiefly on cheese.

Gyre: to scratch like a dog.

Gymble: to screw out holes in anything.

Wabe: the side of a hill.

Mimsy: unhappy.

Borogove: an extinct kind of parrot. They had no wings, beaks turned up, and made their nests under sundials; lived on veal.

Mome: solemn, grave.

Rath: a species of land turtle. Head erect, mouth like a shark; forelegs curled out so that the animal walked on its knees; lived on swallows and oysters.

Outgrabe, squeaked.

Alice at 148-49. In doing so, Carol is acting as lexicographer, but would perhaps have to explain the inconsistencies in spelling between the version set forth in this testimony and that set forth in the patent disclosure.

130. She might not be much help though, because she might testify to the effect that “it [the disclosure set forth in the poem] seems to fill my head with ideas—only I don’t know what they are! However, *somebody* killed *something*: that’s clear, at any rate—” *Alice* at 150 (italics in original).

131. Mr. Dumpty might qualify as an expert on the strength of his assertion that “I can explain all the poems that ever were invented—and a good many that haven’t been invented just yet.” Having qualified, he might then proceed to testify as to this set of meanings:

Brillig: means four o’clock in the afternoon.

Slithy: means lithe and slimy.

Toves: are something like badgers—they’re something like lizards—and they’re something like corkscrews.

Gyre: is to go round and round like a gyroscope.

Gimble: is to make holes like a gimblet.

Alice at 214-16. Mr. Dumpty’s testimony might, however, be discounted if he were impeached by his prior statement that words mean whatever he chooses them to mean (“The question is . . . which is to be master—that’s all.”) *Alice* at 213.

a second case, we might suppose that these creatures are not naturally occurring, that they were produced by a very expensive process, not unlike that exemplified by the pharmaceutical industry or the recombinant DNA industry, involving long lead times, high investment costs, uncertain payoffs, and easy duplication by others once the starting materials and processes are disclosed. A process of invention, which, in short, would not have been economically feasible absent patent protection. To this we may add complications both in terms of validity over the prior art (perhaps this is rather obvious over the practice of putting a guard dog on leash, during the evening hours, accompanied by some noise-triggers that might ensure that the intruder awakens the guard dog), and infringement by equivalents (what if the alleged infringer substitutes for the jabberwock, a lion; what if the alleged infringer substitutes for the borogove, a parrot with beak turned down¹³²; or practiced the method during daylight hours only, ending at about 3:30 pm just prior to the brillig¹³³).

3. An Airplane.¹³⁴

There has always been a problem that might be described as over-claiming by generalizing up from a claim that traces exactly an embodiment of the invention to a claim that instead covers a more general description. Suppose Amanda and Wilma Rite file a patent application disclosing a heavier than air flying machine. The Rite sisters' first claim might read as follows:

1. A flying machine capable of carrying a person, comprising:
 - (a) an airframe that is heavier than air,

132. The orientation of the beak could become significant if the borogove were interpreted as a matter of law to signify only an extinct kind of parrot with up-turned beak, according to the meaning given by Carol. See *supra* note 129 (contending for a borogove as "an extinct kind of parrot . . . beak turned up").

133. The precise time of day could become significant if the brillig were interpreted as a matter of law to signify 4:00 pm, according to the meaning given by Dumpty. Compare *supra* note 131 (Mr. Dumpty, contending for a brillig as "four o'clock in the afternoon) with *supra* note 129 (Carol, contending for "bryllg" as "the time of broiling dinner, i.e., the close of the afternoon").

134. This is based, very roughly, on the Wright brothers, but with some substantial liberties. Accordingly, I will suppose an invention of an airplane by Amanda and Wilma Rite, not only for gender equity, but also to make it clear I am embellishing the story. See, e.g., *Wright Co. v. Paulhan*, 177 F. 261 (C.C.S.D.N.Y. 1910), *rev'd sub nom. Wright Co. v. Paulhan*, 180 F. 112 (2d Cir. 1910) (written by L. Hand, J. and involving the Wright brothers' actual patent, and the wing-warping/tiller rope technique for maintaining stability in flight). I have used this example in a prior article, and I am reusing it here substantially unchanged to illustrate concretely a problem of claim scope. See Thomas C. Folsom, *Truth in Intellectual Property Revisited: Embracing eBay at the Edge*, 2 AKRON INTELL. PROP. J. 69, 91 (2008) (including this same example).

- (b) an airfoil operatively connected to said airframe,
- (c) a power source operatively connected to one of said airframe and airfoil, and
- (d) a control device operatively associated with one of said airframe, airfoil, and power source.

Suppose there were an enabling disclosure, describing a preferred embodiment: a rectangular sled-like frame of light wood (an airframe); a biplane, with cloth-covered wings connected by struts and wires, each having a curve so that air passing over them at a velocity creates a pressure differential causing lift (an airfoil); an engine with a pusher-propeller blade (a power source); and a throttle, and some cables, including one that warps, or flexes, the wing, and another that is tied to a tiller that inclines a rear rudder to offset the tendency created by the wing warp, and a yoke to pull the cables (a control device).

We might conclude that this is a relatively broad claim, capturing more than, say, a photograph of the preferred embodiment of their airplane might have yielded. The claim stands to the disclosed invention rather as a genus to a species. At the same time the claim is very nearly functional in effect, and very nearly “preempts” an entire field. Yet the claim seems fairly to generalize the elements of the invention, and seems to be supported by (described by) the disclosure. The question is: Does this constitute an abuse of the patent system? Or is it precisely what the patent system is intended to do? Should the Rites, by virtue of having invented their pusher propeller, wing-warping biplane, but claiming it more broadly, dominate such things as a helicopter, a space shuttle, or a flying saucer, much less an aileron-flap, single wing, puller propeller machine?

C. *Lincoln’s Praise of Discoveries and Inventions*

It might be time to reconsider Lincoln’s praise of the patent system—in doing so, he seems to accept discoveries, especially improvements, that are merely novel, and some that certainly are no more than mental steps.¹³⁵ He includes “the arts” of writing and printing, the discovery of America, and the invention of the patent system itself as being of “peculiar value” in the world’s history.¹³⁶ To be sure, he nowhere says that any of these is, or should have been, patentable, but these are at least instructive examples into his way of

135. See Abraham Lincoln, *supra* note 112.

136. *Id.* Second Lecture on Discoveries and Inventions at 361.

thinking (and perhaps that of some of his contemporaries) as he proceeds to his culminating language about combining the “fuel of interest” with the “fire of genius” in the patent system.

Lincoln also considers the “boat” as an invention without expressing any concern about combining prior art references: “[t]he sight of a crow standing on a piece of drift-wood floating down the swollen current of a creek or a river, might well enough suggest the specific idea [to an inventive observer] that he could get upon a log, or two logs tied together.”¹³⁷ So also “[c]limbing upon the back of an animal, and making it carry us, might not occur very readily.”¹³⁸ But “the idea of riding one species of animal would soon extend to others” and, “[s]eeing that animals could bear man upon their backs, it would soon occur that they could also bear other [burdens]” and so the discovery that an animal could carry corn on its back. Then might come the discovery that the animal could draw a burden after it—“hence plows and chariots came into use...”¹³⁹

Of course Lincoln, though a lawyer, does not seem to be speaking as a patent lawyer in giving his remarks. He does not explicitly say that any of these discoveries or inventions should have, or would have, merited the award of a patent. Yet it is the patent system about which he is speaking, and these are among the inventions and discoveries to which he alludes. It is at least worth rethinking what standard of patentability might have captured the common understanding in Lincoln’s day. At the very least, the common practice of quoting Lincoln’s “fire of genius” speech with apparent approval might well be qualified by remembering the sort of discoveries he gave as examples.

D. Standard Problems

The several problems, not only in Lincoln’s examples, but in the ones I’ve given (the Prisoners’ Dilemma, the Jabberwock, and the airplane) might be comprehended under four heads: under the first, eligible subject matter and non-obviousness; under the second, claim interpretation, equivalents, description, and enablement; under the third, remedies and secondary liability; and under the fourth, various others including the problem of competing rationales for the patent grant, and competing constituencies. Not coincidentally, these also approximate the

137. *Id.* First Lecture on Discoveries and Inventions at 440.

138. *Id.* at 440-41.

139. *Id.* at 441.

some half-dozen topics that, as Professor Chisum noted, the AIA fails to address.¹⁴⁰

1. Eligible Subject Matter and Nonobviousness.

(a) Subject Matter. Why is there a question whether a method of interrogation, as given above, is eligible subject matter? Let us rehearse just some of the reasons why. It might seem hard to enforce, hard to tolerate both because it seems to appropriate a method of thinking and because it seems to remove a basic building block from the public domain, and hard to square with the more clearly patentable industrial processes that transform a physical thing or are associated with a described machine. It also seems to cover the function itself rather than any particularized method; and precisely because it does not transform a physical thing, and is not tied to a machine, it has an abstract nature.¹⁴¹ Yet it may well be ingenious, useful, and perhaps novel and even nonobvious and Nobel-prize-worthy.

Let us next briefly rehearse the basic law and lore of eligible subject matter. We know the Constitution permits patents to promote the progress of the useful arts, on an inventor's discoveries.¹⁴² We know the patent statutes continuously in force from 1793 until today describe eligible subject matter in four categories: machine, manufacture, and composition of matter (all of them comprising products of one kind or another), and "art" (until 1952) and "processes" (post-1952) (the fourth category, not a product, but at least a series of steps).¹⁴³ Finally, we know that Congress, and then the Supreme Court has glossed all this to mean that patentable subject matter includes anything under the sun made by humankind, excluding laws of nature, naturally occurring phenomena, and abstract ideas.¹⁴⁴

140. Chisum, *supra* note 2.

141. I aim to do no more than summarize a few of the pertinent objections. More robust discussions of history, policy, precedent, statutory, and Constitutional interpretation are readily available. See, e.g., *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) *cert. granted* 129 S. Ct. 2735 (2009) and *aff'd* but criticized on other grounds 130 S. Ct. 3218 (comprising, in its various plurality, concurring, and dissenting opinions, and authorities cited, a sort of primer on the competing perspectives, pro and con, some of them objecting that the machine-or-transformation test is itself too generous). See also *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) (Stevens, J. concurring in the judgment and going further to argue that all business methods ought to be unpatentable).

142. U.S. CONST. art. I, § 8, cl. 8.

143. Compare 35 U.S.C. § 101 (1952) ("... process, machine, manufacture, or composition of matter...") with Patent Act of 1790, Ch. 7, 1 Stat. 109-112 (April 10, 1790) (using the word "art" instead of "process").

144. E.g., *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980) (quoting, and then elaborating on legislative history of the 1952 Patent Act: "anything under the sun..."); S. REP. NO. 1979, 82d

The problem of demarcating patentable “arts” or methods or processes from the unpatentable domain was not first noticed with the advent of the early so-called “algorithms” to come up to the Supreme Court (and lower tribunals) in respect of computer-related devices or virtual devices, much less in connection with business methods. It came up in the context of making soap, sending signals at a distance, and other “arts.” It was far from unnatural, and indeed probably correct to look for the key or clue to eligible subject matter in a series of steps that transformed a physical object from one characteristic or state into another, or that were tied to a machine of some sort.¹⁴⁵ This is because, quite reasonably, the transformation of an object or the tie to a machine was a pretty good way to distinguish the patentable “useful arts” from the unpatentable “liberal arts” or “fine arts.”¹⁴⁶ Inventive rhyme schemes, sonnet forms, methods of fencing, dancing, or thinking (such as the rules of syllogism, or game theory) would seem pretty clearly to be non-patentable for the simple reason that they are not among the “useful arts” in this sense of the expression. And yet, by virtue of what might be called the problem of 8 million patents, or the problem of patent history, many such things, including cat exercising, have been patented.¹⁴⁷ Therefore for the sake of some pretense of historical accuracy these odd patents, which have in fact issued, might be called putatively excluded (or *de facto* unpatentable) but legally (or *de jure*, or by some legal fiction) eligible subject matter.

By coincidence of terminology, a method within those putatively excluded liberal or related arts that happens to be applicable to business is a “business method.” Such a technique may be concrete and “useful” in the sense that it accomplishes something, and has value.¹⁴⁸ But that

Cong., 2d Sess., 5 (1952); H.R. REP. NO. 1923, 82d Cong., 2d Sess., 6 (1952) (“anything under the sun...” in the context of machines and manufactures).

145. *E.g.*, John Thomas, *The Patenting of the Liberal Professions*, 40 B.C. L. REV. 1139, 1164 (1999) (contrasting an historical understanding of the various “arts”: distinguishing the (patentable) industrial, mechanical, and manual arts from the seven liberal arts and the four fine arts); Robert Merges, *Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577, 585 (1999).

146. *Id.*

147. *See infra* text accompanying notes 152-155 (rehearsing some of the standard oddities: issued patents for toilet reservation systems, and cat-exercising products and processes, among others).

148. *See State Street Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998) (formulating the now-discredited rule that patentable subject matter includes anything that produces a “useful, concrete, and tangible result”); *Bilski v. Kappos*, 130 S.Ct. 3218, 3259 (2010) (Breyer, J., concurring in the judgment) (noting, of the State Street formulation: “[t]his Court has never made such a statement and, if taken literally, the statement would cover instances

does not, without more, transform it into something within the “useful arts” in the sense of a transformative industrial technology. At least some such techniques also tend to “preempt” entire fields,¹⁴⁹ to denude the public domain of foundational building blocks, to create difficult problems of enforcement, and to trigger John Locke’s caveat that the assignment of legally enforceable property rights to the one who has labored in the creation must be tempered by the requirement that there remain in the commons as much and as good for everyone else.¹⁵⁰

It does not answer the question to say that patents are to be granted for “inventions” and that inventions are, in their nature (or in accordance with our long-standing practice), both novel and not obvious either to other workers in the field or to legislators who are enacting broadly worded patent laws. If entire fields of non-technologically useful arts were excluded, it was not because they were unforeseen, but because they were considered outside the ambit of the patentable. It is correct to say that it is for Congress itself to decide the scope (assuming the Constitution permits) of patent eligibility. It is also correct to acknowledge it is a difficult task either to falsify or corroborate statements about historical practices at the PTO in light of the 8,000,000-odd patents issued¹⁵¹ over a couple hundred years, and that there is a need to divorce current questions from domination by past mistakes.

where this Court has held the contrary.”; *Lab. Corp. of Amer. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 136 (2006) (dissenting from the dismissal of certiorari as improvidently granted).

149. See *Gottschalk v. Benson*, 409 U.S. 63 (1972) (determining, without explanation, that the claimed binary-coded-decimal conversion trick did preempt the field, and taking that as a relevant factor in reaching the conclusion that the method at issue was non-patentable subject matter).

150. JOHN LOCKE, *SECOND DISCOURSE ON CIVIL GOVERNMENT* (1690). Of course, such concepts as these are intertwined with others, and would benefit from a comprehensive treatment. See *infra* Part II.B.4.b; and see Appendix B *infra* (outlining, in preliminary form, a comprehensive quasi-restatement of patent law).

151. It is an interesting coincidence that the signing and presentation of U.S. Patent No. 8,000,000 by the Director of the Patent and Trademark Office was announced to take place at a ceremony to be held at the Smithsonian American Art Museum on September 11, 2011, just five days prior to the September 16, 2011 signing ceremony for the America Invents Act. See “U.S. Patent and Trademark Office Issues Patent No. 8,000,000,” USPTO Press Release 11-47 (Aug. 16, 2011), available at <http://www.uspto.gov/news/pr/2011/11-47.jsp> (the patent to be presented on September 11); Richard Maulsby, *President Obama Signs America Invents Act*, THE INVENTORS EYE: THE USPTO’S BIMONTHLY PUBLICATION FOR THE INDEPENDENT INVENTOR COMMUNITY (Oct. 2011), available at <http://www.uspto.gov/inventors/independent/eye/201110/americaninventsact.jsp> (reporting on the September 16 signing ceremony, and characterizing the AIA legislation as representing “the most significant reform of the U.S. patent system since 1836 [sic].”). The Congress itself was more humble, claiming only to have enacted the most significant reform since the 1952 Patent Act. See *supra* note 1.

It seems clear that the PTO has, in fact, issued patents covering methods of lifting weights, methods of conducting character assessment by asking questions and making correlations, and any number of other bizarre (so it would seem) and clearly ineligible subject matter.¹⁵² These would be fairly characterized as putatively excluded (“ranging from the somewhat ridiculous to the truly absurd”)¹⁵³ that is, if it were true that patentable subject matter were limited to “useful arts” in the sense of “industrial” “technological” or transformative arts. If all of those curious patents, and more besides, had been good law, then the Supreme Court was simply wasting its time in its famous software methods, engineered life form, and the so-called business method cases.¹⁵⁴ These would have been easy cases, no more “ridiculous” or “truly absurd” than methods of training janitors, or of exercising a cat.¹⁵⁵ But they did not

152. See, e.g., ADELMAN, *supra* note 75, at 122. See, e.g., U.S. Patent No. 5,498,162 (method for demonstrating a lifting technique); U.S. Patent No. 5,190,458 (character assessment method). The examples could be multiplied

153. *Bilski v. Kappos*, 130 S.Ct. 3218, 3259 (2010) (Breyer, J., concurring in the judgment) quoting *In re Bilski*, 545 F.3d 943, 1004 (2008) (Mayer, J., dissenting). Among the examples of such patents cited were those covering methods for training janitors to dust and vacuum using video displays (U.S. Patent No. 5,851,117); a system for providing reservations for restrooms, for use, in one embodiment, for bathroom reservations on an airplane (U.S. Patent No. 6,329,919 B1, assigned to IBM); and a method of using color-coded bracelets to designate dating status and to limit the embarrassment of rejection (U.S. Patent No. 7,255,277 B1).

154. *Id.* at 3248 (Stevens, J., observing, “[w]e have never understood that [“anything under the sun”] piece of legislative history to mean that any series of steps is a patentable process. Indeed, if that were so, then our many opinions analyzing what is a patentable process were simply wastes of pages. . .”).

155. As this goes to press, the cat exercise patents have again popped up in web site discussions of patent law. See “MJB” who has added this comment to a thread dealing with the Apple-Samsung litigation:

At [least] 5 patents have been granted for the idea of shining a laser pointer around a room for a cat to chase, which just shows how broken the patent system really is.

5,443,036 Method of exercising a cat;

6,505,576 Pet Toy;

6,557,495 Laser Pet Toy;

6,651,591 Automatic laser pet toy and exerciser; and

6,701,872 Method and apparatus for automatically exercising a curious animal.

There are probably more by now, but my present job does not have me tripping over them like my old job did. A stupid patent that would be a good contender for being even worse than these laser pointer cat toy patents is 6,360,693 “Animal Toy”, which is a patent on using a toy shaped like a stick as a throw toy for dogs. The front page image is literally a stick.

Martha Nell, *John Quinn Faces Off with Federal Judge in Apple v. Samsung Case*, ABA Journal (Aug. 2, 2012), available at http://www.abajournal.com/news/article/john_quinn_faces_off_with_federal_judge_in_apple_v._samsung_iphone_case/?utm_source=maestro&utm_medium=email&utm_campaign=weekly_email (comment no. 10, posted by “MJB”) (punctuation changed). Those of us who have used a flashlight to the same effect might only hope we are not infringing under the doctrine of equivalents or that we might have some other defense.

seem so easy to the Supreme Court (and to be fair, perhaps some of these method patents had not yet been issued or well-publicized at some of the times the Court was famously wrestling with the issues). Hence the festering problem that has always existed and which continues to fester. If any of these oddities are bad patents, it is because of the bad law that permits and incentivizes them.

Here let me reemphasize my purpose and make a clear statement. My purpose is nothing more than to alert the non-patent lawyers to the fundamental issue, that patent eligibility remains an open question: is, say, the *syllogism*,¹⁵⁶ or the *reverse triangular merger*, the *certified check*,¹⁵⁷ or a *credit card payment system* (or debit card system), or any other series of mental steps, patentable subject matter? My corollary statement follows. All I have reproduced here is a poor fragment of a serious debate, a debate well documented and well-travelled by persons far more learned and witty than I. Although I have a favored position, that is not my point. My point is an almost trivial one: this is a substantial controversy. Each of the several sides has arguments that are plausible, and after all these years it still seems the matter is neither entirely clear nor is it closed. The battle is fought, and refought, but never concluded.¹⁵⁸ And, it is something scarcely addressed by the AIA.

(b) Obviousness. It is the long-standing rule that, given patentable subject matter, the claimed invention must be more than novel; it must have something else to constitute an invention before a valid patent may issue. When the Patent Office is issuing patents for improved peanut butter and jelly sandwiches despite all the prior art in the field,¹⁵⁹ it might seem that the standard leaves something to be desired in formulating that “something else” beyond novelty. In various

156. See Thomas C. Folsom, *Truth in Intellectual Property Revisited: Embracing eBay at the Edge*, 2 AKRON INTELL. PROP. J. 69, 93 (2008) (drawing a claim to the syllogism).

157. The claim might read something like: “a method of providing greater certainty of payment of a check comprising the steps of . . . presenting a check to the drawee bank for acceptance prior to delivering said check to a third party payee . . .”

158. It was well said by Professor John Duffy, in the context of a question and answer session following his remarks about rules and standards for patentable subject matter, given at a conference at William & Mary Law School, as transcribed by Professor Tushnet who was live-blogging from the conference, that “[these] rules have a half-life of about 10 years, which is bad given that patents last for 20.” Rebecca Tushnet, *The Boundaries of IP at William & Mary*, Feb. 6, 2009, available at <http://tushnet.blogspot.com/2009/02/boundaries-of-ip-at-william-mary.html> (with disclaimers “squared” at the beginning of the post).

159. See Chisum, *supra* note 125 at 339 (pointing out U.S. Patent No. 6,004,596 for an improved peanut butter and jelly sandwich). The patent, for a sealed crustless sandwich, issued on December 21, 1999. According to Lexis/Nexis records (“Legal Status”), the patent subsequently “expired due to reexamination which canceled all claims” (Sept. 2007) and also “lapse[d] for failure to pay maintenance fees” (Dec. 2007).

formulations, that something else has been called, among other things, inventiveness, or a flash of genius, or something beyond mere routine work.

Since 1952, the statute has labeled it in terms of obviousness, to be determined in three steps: first, measure the level of the art as of the moment prior to the claimed invention, then measure the step by which the invention raises the level, and finally, assess the skill of the person having ordinary skill in the art (“phosita”) to which the invention pertains. If that person could have taken that step, without the benefit of hindsight, then the claimed invention is obvious, and not entitled to a patent.¹⁶⁰ This is a fine, but almost sterile standard. It is fine for repeating, as if saying the mantra somehow makes it real. But it is sterile because it is merely substitutes one kind of guess for another kind of guess. At least I am not familiar with any case in which, say, a graduate class at the master’s degree level in electrical engineering at a “Standard University” or some other that might be taken as a standard for producing PHOSITAs in the art to which any patent pertains was sampled to see (assuming each graduate student would be a phosita) whether all, most, or some of them could have solved an electrical engineering problem set before them in a sort of “clean room” experiment to provide direct evidence on the ability of a phosita, given the prior art, to take the step that would happen to coincide with a claimed invention under scrutiny.

The lore goes further. Because it is rather obviously difficult to apply the statutory test by any sort of direct proof, various indirect or secondary factors may be used: successive failed attempts to solve the problem, long-felt and long unsatisfied need, immediate commercial success, and peer recognition are among the commonly employed secondary considerations.¹⁶¹ These secondary considerations seem ready made, at least in some cases, for the approximations useful in judicial trials. They avoid the airy uncertainty and *ipse dixit* inherent in the statutory standard and so are more suitable for rational determination. They are famously open to contrary or mitigating inferences depending upon facts that might be introduced into evidence and so are suitable for an adversary trial on the facts. Because many cases are never litigated, the expense of developing such evidence may

160. *Graham v. John Deere Co.*, 383 U.S. 1 (1966); 35 U.S.C. § 103.

161. *See Graham*, 383 U.S. at 17-18 (endorsing the use of secondary factors of non-obviousness as an aid to the inquiry).

be deferred and then only needed in cases that are economically important enough to justify the exercise.

Yet more readily at hand is a third obviousness-assessment method notoriously common among patent practitioners and patent office examiners: the method of simply combining references. If the claimed invention is something like a combination of elements A, B, and C, and if no single prior art reference anticipates the invention by including all the elements, then the task is simply to find two or three references each of which comprises one or two of the elements, and all of which together encompass all of the elements. Then, asserting that a person having ordinary skill in the art would have known of the references, and asserting either that the prior art itself contains some teaching, suggestion or motivation to combine the references (the CAFC's statement of the law, circa the 1980s until 2007),¹⁶² or simply that it would have been obvious to any person having ordinary skill in the art to make the combination (the newer style statement of the law),¹⁶³ then the claimed invention may be held to be obvious and hence not patentable. The combining-references style of determining obviousness, rough as it may be, has the clear advantage of being within the capability of the rough-cut work at the level of ordinary practice. In the absence of *inter partes* contests in the patent office open to evidence of secondary factors (and in all of those cases in which the applicant introduces no affidavits as to secondary factors), this is an economically efficient, though incoherent, way to sort out the most grossly obvious claims from the rest. Conversely, it produces a rule of thumb among practitioners: if the subject matter is not anticipated, then the claimed invention just might qualify; if novel, then go ahead and file an application because a patent could issue; and especially if the cost of prosecution is relatively small compared to the potential economic return of an issued patent accompanied by the automatic presumption of validity. This rule of thumb probably passes a large number of obvious claims through the sieve. Without any coherently principled standard it probably rejects a number of no less meritorious "inventions." But at least it permits relatively rapid processing of applications at a relatively low cost per patent examination in light of the resources most readily available to an

162. See, e.g., *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984) ("... references can be combined *only* if there is some suggestion or incentive to do so") (emphasis in original); and see *Al-Site Corp. v. VSI Int'l, Inc.* 174 F.3d 1308, 1323-24 (Fed. Cir. 1999) (requiring "some motivation or suggestion to combine the prior art teachings").

163. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 399 (2007) (allowing combinations without necessarily requiring a teaching, suggestion, and motivation to combine).

examiner, and those most likely to be turned up by a practitioner in regular prior art search.

Recent decisions have stressed degrees of predictability,¹⁶⁴ and have held patents invalid for obviousness when the claimed invention seemed to result merely from routine experimentation.¹⁶⁵ A well-known teaching text points to a “renaissance of scholarly commentary on obviousness.”¹⁶⁶

It seems fair to say that the existing tests for something beyond novelty, regardless of specific formulation, have been difficult to apply, and hence difficult to predict or to explain either prospectively or retrospectively. Although perhaps some cases are clear, every case stands on its own; and because each is its own special event, there is a limit on what anyone can learn from reading the cases beyond the simple truism: if the claimed invention is not flatly anticipated by a single reference, then there is always a chance that it might issue as a patent. As in the prior subsection on patentable subject matter, it is not my purpose here to recapitulate or even fairly to summarize the massive literature on this subject. My point is simply to state the fairly obvious conclusion. Given the looseness of the standard, given the looseness of the established practice by which over 8,000,000 patents have issued, many of which claim surprisingly small improvements over what has gone before, given the statutory presumption of validity once a patent does issue, and given the relatively inexpensive process of testing the patent office examiners’ fortitude, and given the almost scandalous luck-of-the-draw results dependent upon the radically different results based on the examiner to whom the application is assigned,¹⁶⁷ there is always and only a one-way pressure to file a patent application on anything that is novel. If a “bad” patent is one that should have been rejected as obvious, then the problem is that there may well be several million of

164. *Eisai Co. v. Dr. Reddy’s Labs., Ltd.*, 533 F.3d 1353 (Fed. Cir. 2008).

165. *Ritchie v. Vast Res., Inc.*, 563 F.3d 1334 (Fed. Cir. 2009) (Posner, J., sitting by designation).

166. ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 691 (5th ed. 2011); and *see id.* at 688-740, (collecting relatively recent cases, notes, and authorities, and organizing them substantially in light of *KSR v. Teleflex*, 550 U.S. 398 (2007)). I believe the *Merges & Duffy* casebook constitutes evidence of the ordinary level of skill and understanding of a contemporary law student in the art of solving problems in patent law (the authors themselves being well above the ordinary level).

167. See Shine Tu, *Luck/Unluck of the Draw: An Empirical Study of Examiner Allowance Rates*, forthcoming, 20 *STANFORD TECHNOLOGY LAW REVIEW* (Oct. 5, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1939508 (finding empirical evidence to doubt the proposition that patent examiners apply the standards of patentability in an even, fair, unbiased and consistent manner).

them already issued. Among those 8 million issued U.S. patents are a substantial number that could be called actually (or *de facto*) obvious and putatively non-patentable, even though they are *de jure*, or by some legal fiction, treated as if they were nonobvious. It is the system itself that incentivizes such patents while forcing practitioners to pretend that the system is able legitimately and predictably to distinguish the obvious from the nonobvious.

Consider the jabberwocky poem recited above and the fanciful claims based upon it. Grant for the moment a prior art tableau that does not include any use of a jabberwock to guard a building, and hence the absolute novelty of the claimed invention. Evaluating the claim for obviousness might seem easy. Suppose there is prior art that discloses use of a guard dog chained adjacent the premises to be protected, wouldn't it be obvious to substitute a jabberwock for a dog? What of the surrounding matter, the toves and borogoves, and the time limitation to a period of a brillig—beyond making it harder for an examiner to find and combine references to reject the claim on the grounds of obviousness, what do they add? And what of the notion that an intruder be without a vorpal blade (putting aside the infelicity of the claim form, which might well be rejected for claiming a negative), or that the guarding creature have both jaws and claws? It might seem the chances of obtaining a valid patent are rather thin. But then how do we explain patents that have issued for subject matter much less (to use a serviceable though disapproved word) “inventive” than that?¹⁶⁸ If we reject the jabberwocky claim as drawn to obvious subject matter, it is likely that we will toss out a very large number of issued patents that are no more inventive (no more non-obvious). If, instead, we allow the jabberwocky claim, it would fit comfortably within the ranks of the routinely granted patents that are no less obvious. Once again, it is bad law that makes bad patents.

The chimerical obviousness inquiry, in its attempt to avoid hindsight bias, suggests an analogy to the “pre-cogs” imagined in a ten-year old motion picture.¹⁶⁹ In the patent law context, the pre-cogs would be pointing to the one who would have invented, prior to the invention, just as in the motion picture they are pointing to the one who is subject to a sort of “pre-arrest” for crimes not yet committed. The problem is

168. This could be a never-ending footnote because the examples are countless. For present purposes consider merely some of the examples already given: the video display that teaches janitors to dust, the method of taking toilet reservations, the use of color-coded bracelets. See *supra* note 153 (collecting such patents).

169. *Minority Report* (Twentieth Century Fox et al. 2002); DICK, *supra* note 2.

that there are no pre-cogs in the real world. They are fictional. Consider that the jabberwock, stripped of all the smoke and mirrors, is very like a guard dog chained near a building. It may be long past time to acknowledge that the obviousness standard is impossible of predictable or coherent application, that almost every single patent ever issued is, in fact, obvious according to the standard we say we are using, and that it is time to figure out what, exactly, “we” want to patent, and why.¹⁷⁰ At the very least, and discounting that I might be dramatically wrong, it is well past time to acknowledge at the very least that there is a serious problem, worthy at least of serious discussion. This is especially so when so many new technologies are invented near-simultaneously by teams working independently of one another.¹⁷¹ To the extent this is so, it would seem to provide some evidence of patent-invalidating obviousness: a sort of secondary factor counting against patentability. Perhaps the problem is inherent in the very idea of trying to draw a line between the novel discovery that is worth patenting and the novel discovery that is not worth it. If so, perhaps there is another way of framing the issue and dealing with the problem.¹⁷² One thing clear is that the AIA does nothing to help.

2. Enablement, Description, and Claiming; Interpretation, Equivalents

(a) Enablement, Description, and Claiming. The doctrines are easily stated but hard to apply. Any claim must enable a person skilled in the art to make or use the claimed invention without undue experimentation, based on the description in the specification as filed, coupled with the basic understanding of those skilled in the discipline.¹⁷³ The claims must define the boundaries (periphery) of the patented subject matter.¹⁷⁴ But consider both the hypothetical Rite sisters, and the actual Wright brothers, against a helicopter, or against a wing flap, the

170. See *supra* notes 125-131 and accompanying text.

171. See Mark A. Lemley, *The Myth of the Sole Inventor* (July 21, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1856610 (“The canonical story of the lone genius inventor is largely a myth... surveys of hundreds of significant new technologies show that almost all of them are invented simultaneously or nearly simultaneously by two or more teams working independently of each other.”)

172. One way to reframe would be to reconsider the definition of “inventor.” See *supra* text accompanying notes 106-112. See Appendix B, *infra* (an outline of a comprehensive quasi-restatement of patent law).

173. Patent Act § 112.

174. *Id.* (as interpreted).

aileron of Glenn Curtiss, as a “control device” (or as an “airfoil”).¹⁷⁵ What exactly has the inventor invented or claimed, and how, exactly, do we parse the broad literature of semiotics and general notions of definitions? The claim need not be a “photograph” of the described embodiments in the specification, but there seems no clear boundary between generalizing up from a species to a broader concept or genus, on the one hand, and claiming what the inventor never invented and never described in detail, on the other hand. The law encourages creative, or broad, claiming within a suite of claims drawn to progressively narrower scope.

(b) Interpretation, Literal and Non-Literal Infringement. The doctrines are easily stated but far from plain. A claim must first of all be interpreted, and interpretation is not a matter of fact for a jury, or requiring the ordinary deference to the fact-finder, but is rather a question of law.¹⁷⁶ Once interpreted, a claim may be applied to an allegedly infringing product or process to see whether each element (or limitation) of the claim is “literally” found in the allegedly infringing item.¹⁷⁷ Even if not literally infringed, the claim might still cover the item, by an “equitable doctrine of equivalents,” by substantial identity in function-way-result, or by a consideration of trivial or insubstantial substitutions,¹⁷⁸ the matter to be determined not under rules of equity, nor in special cases, nor applied by a judge, but applied by a jury in all cases.¹⁷⁹

Consider the problem of interpreting the words used in the jabberwock claim as a matter of law: consider parrots with beaks turned up, or consider a lion substituted for the jabberwock.¹⁸⁰ How, exactly, do we conform patent law to the rich literature of interpretation and construction in the law of contracts, in wills and other bequests, and statutes or other general laws; and what of the doctrines of purposive construction and the like? Ultimately, how do we answer Judge Mayer’s

175. See *supra* note 134 (citing the case that pitted the Wright brothers against others, and referring to the wing-warping, together with rudder movement, technique of the Wright brothers’ patent).

176. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) (calling the question a mixture of law and fact, better handled by judges than juries).

177. See, e.g., *Baxter Healthcare Corp. v. Spectramed, Inc.*, 49 F.3d 1575 (Fed. Cir. 1995) (reading a claim on an accused product or process); *Lantech, Inc. v. Keip Machine Co.*, 32 F.3d 542 (Fed. Cir. 1994) (holding that for literal infringement “each limitation of the claim must be met by the accused device exactly . . .”)

178. See, e.g., *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605 (1950).

179. See *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17 (1997).

180. See generally *supra* notes 128-131 (providing various literal meanings of some of the terms, from which it might be possible to determine a range of equivalents).

observation concerning the notion of claim construction as a supposed matter of law, accompanied by de novo appellate review in the Court of Appeals for the Federal Circuit: “Now more than ever I am convinced of the futility, indeed the absurdity, of this court’s persistence in adhering to the falsehood that claim construction is a matter of law Because the attempt to fashion a coherent standard under this regime is pointless.”¹⁸¹

Perhaps there are at least three categories of words to be interpreted: (a) those that are terms of art in the patent realm,¹⁸² (b) those that are, by and large, “ordinary” words in ordinary usage (or having special but demonstrable meanings within a trade or course of business),¹⁸³ and (c) those that are, like “tove” or “mimsy” or “borogove”, terms that have no meaning independent of the facts that give rise to them, precisely because they are new, and can’t have any independent “legal” meaning apart from the facts that prove their significance. Depending on the category, the word could have more or less settled legal content or more or less factual content, with corresponding deference to the fact-finder.¹⁸⁴

When all this is sorted out, there may well be some *tertium quid* between what has been traditionally allocated to the finder of law and the finder of fact. Perhaps rather than pretend or falsify reality, it might be useful purposely to design the set of circumstances, if any, in which the CAFC might resolve a conflict between district courts in respect of the same patent, if relevant language actually were interpreted differently by different fact-finders, by declaring which of the competing factual determinations is correct.

181. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (en banc) (Mayer, J., dissenting). See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1451 (Fed. Cir. 1998) (en banc) (establishing the de novo standard of review).

182. These would include the words “comprising” or “consisting of” or “consisting essentially of” and such other well-known expressions as “a, or an” to signify “one or more than one”; and “plurality” to signify “more than one.” See ROBERT C. FIPPINGER, *LANDIS ON THE MECHANICS OF PATENT CLAIM DRAFTING* (5th ed. 2003) (glossing terms that have standard meanings in the field of patent claims).

183. For example, the term “dozen” may signify either 12 or 13, depending on the circumstances. See generally ARTHUR CORBIN, *CORBIN ON CONTRACTS* § 544 (ONE VOLUME EDITION) (1952) (contending, although not without authority to the contrary, that upon the invention of a code by one party communicated to another party “[w]hite can be made to mean black, five can be made to mean ten, 500 feet can be made to mean 100 inches, and Bunker Hill Monument can be made to signify Old South Church.”).

184. See generally Peter S. Menell, Matthew D. Powers & Stephen C. Carlson, *Patent Claim Construction: A Modern Synthesis and Structured Framework*, 25 *BERKELEY TECH. L.J.* 711 (2010) (giving examples—hydroxypropyl, cyclic redundancy, oligonucleotide—perhaps no easier to decipher than Carol’s borogoves and toves).

3. Remedies and Secondary Liability

(a) Remedies. If property connotes a right to exclude, and if the right to exclude reciprocally connotes the existence of property, then patents are property, not as some theoretical construct but as a matter of essential characteristics supplied by statutory and Constitutional fiat.¹⁸⁵ Once Congress has granted a right to exclude, it would seem that the prohibitory injunction follows as a matter of course upon infringement of a valid claim. But according to the Court, the injunction does not necessarily follow unless the traditional equitable factors coincide.¹⁸⁶ The Supreme Court has suggested that the public interest is a factor explicitly to be weighed after a finding of infringement of a valid claim and before deciding whether to enter a prohibitory injunction.¹⁸⁷ A first plurality of the Court anticipates that, Congress having spoken, an injunction will issue almost always.¹⁸⁸ A second plurality of the Court is not so sure.¹⁸⁹

This gap creates room for flexible development of a modified version of patent law, depending upon specific findings concerning the public interest in respect of particular patents and particular circumstances.¹⁹⁰ Consider different degrees of confidence in various patents, ranging from those that are of doubtful subject matter or doubtful non-obviousness; consider ranges of infringement from clear literal infringement of well-defined claims to non-literal infringement and vague claims. There could be different classes of patents—originality patents, industrial policy patents, novelty patents, nonobvious patents—and different levels of disclosures within them (those that contain a glossary, and those that don't).

What if the range of remedies was from attribution, to a compulsory license ranging from a token reasonable royalty to a more hefty reasonable royalty, to damages or other monetary recovery, to an injunction, all based on the class of patent and type of disclosure. The public interest might perhaps identify and distinguish a small inventor,

185. U.S. CONST. art. I, cl. 8, § 8 (granting Congress the power to secure for limited times to inventors the “exclusive” right to their discoveries); 35 U.S.C. § 154(a)(1) (“Every patent shall contain . . . a grant to the patentee . . . of the right to *exclude* others from making, using, offering for sale, or selling the invention . . .”) (emphasis added); *and see* 35 U.S.C. § 271 (“. . . whoever without authority makes, uses, offers to sell, or sells any patented invention . . . infringes the patent.”)

186. *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

187. *Id.* at 394.

188. Folsom, *Truth in Intellectual Property Revisited*, *supra* note 4, at 74.

189. *Id.* at 74-75.

190. *Id.* at 75-81.

unable to commercialize and hence to practice the invention, from a syndicate that purchases patents for the purposes of suing on them; and so on. Some small inventors might offer persuasive evidence that ongoing infringement of their patents prevented them from obtaining the investment capital necessary to become a practicing entity, or pressed them to license their patented invention to others at bargain rates, or otherwise to seek some way to leverage their patented invention. Perhaps some inventors could establish an actual status, explicitly claimed and defended under some burden of proof, as a “pioneer” (or not) with different requirements and remedies in favor of such a demonstrated pioneer.¹⁹¹

(b) Direct and Indirect Infringement (Secondary Liability). Consider making much more clear the various distinct bases upon which it is “just” to hold one party, not otherwise liable, answerable for the conduct of another, and the need to specify shelter provisions and safe harbors. It would be quite possible to clarify degrees of fault (from outright inducement to contributory fault), status (from actual agency to non-agents possessing some ability to influence conduct coupled with some fairly allocable financial stake in the allegedly infringing actions), consent, or policy (or hostage-style) reasons for imposing secondary liability on a person not otherwise liable.¹⁹²

4. Mixed Motives and Labyrinthine Rationales

(a) Pirates, Trolls, and Name-Calling (the Noble and Ignoble Parties). There is much concern over “trolls.” If this is both justifiable and intended to be some sort of legally operative standard or rule, then the object of wrath should be a defined, specified category that makes sense to de-privilege. A “non-practicing entity” is very nearly the same thing as the noble independent inventor, toiling in the garage (or not unlike Gould’s work on the laser),¹⁹³ and is precisely the sort of person, one would have thought, we are trying to encourage and reward (else why were we wasting all our time trying to protect the small inventor under the notion that first-to-invent favors the “little guy” if it turns out

191. See *supra* notes 107 & 113 (suggesting two other keys to real patent reform). See Appendix B, *infra* (proposing such a graduated system as part of a comprehensive quasi-restatement of patent law).

192. See Folsom, *Non-Neutral Principles*, *supra* note 4. See Appendix B, *infra* (outlining such a proposal within a comprehensive quasi-restatement of patent law).

193. See generally *Gould v. Schawlow*, 363 F.2d 908 (CCPA 1966) (one of Gould’s lawsuits over the laser); Folsom, *Truth in Intellectual Property Revisited*, *supra* note 4, at 91-93 (discussing “trolls”).

the little guy were just a troll?). The “troll” epithet must be more carefully considered, and if defined at all, must encompass some specific content, some differentia beyond “non-practicing” if it is to be at all useful. The correlation should not be between practicing or non-practicing entities per se; but between bad patents in the hands of non-practicing (or practicing) entities compared to good patents. The act of monetizing a “good” patent either by practicing it or else by not practicing but leveraging it through some entity that can enforce it would seem to be one of the intended incentives of the patent system to promote the progress of the useful arts.¹⁹⁴

Likewise a “pirate” who designs around the literal claims of a patent is very nearly the same thing as an honest man (or woman) who is doing precisely one of the things the patent act is supposed to encourage: advancing the useful arts by finding alternative, non-infringing ways of producing substantially the same result, whether by a similar or dissimilar way or function. If all the “pirate” is doing is mere copying the result (with some substantial similarity to the claimed invention) but not literally infringing, then the only honest way to characterize such conduct is “plagiarism” and the only problem is that plagiarism is not illegal (or should not be illegal under the patent act), and Congress probably doesn’t have any power under the Constitution to create a federal anti-plagiarism statute covering unpatented and uncopyrighted materials (or so it would seem, if we hadn’t grown accustomed to the idea).¹⁹⁵

194. But even this proposition will meet with disagreement. In fact, a not uncommon popular view is that there is something unseemly about the practice of turning patents over to persons or entities that intend “not to develop products with them, but to make money through licensing and litigation.” See, e.g., Ashby Jones, *Patent ‘Troll’ Tactics Spread*, WALL ST. J. at p. B1 (July 9, 2012). Of course, if the patent in issue is a bad patent because putatively non-eligible, or de facto obvious, or otherwise defective, the real fault is not the ‘trolling’ but the fact that the underlying patent is no good.

195. See generally *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23 (2003) (no anti-plagiarism action under § 43(a) of the Lanham Act); *Cheney Bros. v. Doris Silk Corp.*, 35 F.2d 279 (2d Cir. 1929) (L. Hand, J.) (distinguishing *International News Service*: “To exclude others from the enjoyment of a chattel is one thing; to prevent any imitation of it, to set up a monopoly in the plan of its structure, gives the author a power which the Constitution allows only Congress to create.”); American Law Institute, *RESTATEMENT (THIRD) OF UNFAIR COMPETITION* § 1 (1995) (declaring a freedom to compete, absent deceptive marketing, infringement of a trademark, appropriation of specified trade values, or federal patent or copyright law). *But cf.* *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605 (1950) (applying patent law’s judicially-created “doctrine of equivalents” to find non-literal infringement); *Sheldon v. Metro-Goldwyn Pictures Corp.*, 81 F.2d 49, 56 (2d Cir. 1936) (L. Hand, J.) (ostensibly applying copyright law to find non-literal impermissible taking of plot elements, and thereby blurring the distinction between plagiarism and copyright infringement). In the wake of such cases as *Sheldon*, we are now

(b) What are “we” trying to do (property-based rights, conduct-based liability, conventionally-bargained benefits, economic–industrial policy, or some coherent blend of these?)

The object of our patent law might be to secure a conventional bargain. Society will get progress in the useful arts as a result of incentives to inventors or their assigns (or to their lenders, partners, or investors) to invent, to disclose their inventions, to exploit or commercialize them, and to re-invest yet additional resources to the inventive endeavor. In return, the inventors get the minimum amount of incentive necessary to induce them to provide these advances in the useful arts for the benefit of the polity. If so, it is a strange bargain we actually have ended up with, and it is hard to imagine the hypothetical negotiations that might have produced it as a matter of rational expectations.

Then, again, the object might be to recognize, *sub silentio*, (and even contrary to the approved rationale) a natural right to the purest form of property, but the least able to be secured by the natural proprietor absent the help of the polity. Pure, because it is the most Lockean, the most nearly created quasi ex nihilo, and the most unlikely to be “removed” from the public domain because, of course, since it is both novel and nonobvious, it was never in the public domain in the first place. It is insecure because it is by nature non-excludable (except for matters that could as easily be kept as trade secrets), non-rivalrous, and subject to public goods disincentives to produce. If so, the polity exacts an oddly high price for its services as intermediary/broker to this result.

Yet again, the object might be to deter unfair methods of competition and immoral conduct by prohibiting a sort of plagiarism practiced against the inventor. Hence, a person who “takes” as a plagiarist might do—without crediting the source—and thereby acts as a “pirate” by asserting to have invented or earned what he or she has simply borrowed or copied, or who “reaps” without having “sowed” or who lives by the sweat of another’s brow is a bad sort, who ought to know better, and who ought to be punished. This is, of course, is not “property” at all, but a conduct-based regime. Moreover it seems exactly opposite and contrary to the stated rationale of patent law. Yet it seems the weird gestures of non-literal infringement, and the so-called equitable doctrine of equivalents are incoherent without some measure of sympathy to this view. This view seems rather obviously

accustomed to cases in which access plus substantial similarity in abstractions, in total concept and feel, or other plagiarism-like constructs, yields a finding of infringement.

impermissible under the constitutional grant as traditionally understood (or as consistently misunderstood), and in light of our federal system, but we have been routinely doing this for some one hundred years or so under both the patent and the copyright acts in respect of non-literal infringement. Perhaps it wouldn't hurt to acknowledge that much of the tangled web of overgrown "intellectual property" is due to rampant impermissible federal anti-plagiarism or "bad conduct" monitoring. At least we would save ourselves the trouble of trying to figure out what such great lights as Judge Learned Hand meant when they say "the game is afoot" as soon as we try to figure out the boundary between non-literal infringement (the taking of a non-property property) and non-infringement of a copyright,¹⁹⁶ or the difference between a pirate who commits an invisible "fraud on" an unclaimed invention substantially similar to a claimed invention¹⁹⁷ and a legitimate competitor who designs around a claimed invention.

Yet further, the object might be to create a sort of industrial policy on the cheap, without the government's directly picking winners or awarding positive grants, but rather awarding limited-time monopolies, and awarding such privileges to those industries, arts, and activities that are too important, too risky, or too expensive to leave to wholly unsubsidized market competition. This, although completely (so it seems) antithetical to the historical, doctrinal, and logical axes of patent law, is actually a rather powerful explanatory device. How else to explain the transparent charade of "non-obviousness" by which we pretend that just within a recent span of some 22 years, there have been over 2 million "nonobvious" inventions, with one million of them issuing in the last six years.¹⁹⁸ They are, in great part, perfectly obvious, but they apparently support an industrial policy of sorts, and so we have an industrial policy on the sly. Perhaps we should forthrightly acknowledge that is what we have, rather than wear people out trying to take the concept of "obviousness" seriously.

196. *Compare* Nichols v. Universal Pictures Corp., 45 F.2d 119 (2d Cir. 1930) with Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 56 (2d Cir. 1936).

197. *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605 (1950) (engaging in question-begging name calling: the question to be decided was whether a person who did not literally infringe the claimed invention was nonetheless liable; simply calling the conduct a "fraud" against the patent did not seem to answer the question).

198. For this number of patents awarded in a recent twenty-two-year period, but without my characterization of them, see Gerald J. Mossinghoff, *Small Entities and the first-to-invent Patent System: an Empirical Analysis*, WASHINGTON LEGAL FOUNDATION (2005). For the one million within the last six years, see *supra* note 13.

Maybe some guidance on these objects or purposes might serve to help discern between good patent practice and bad.¹⁹⁹

(c) Suspicious minds: “pharma” v. electronics; patent lawyers v. society; users v. producers—the public domain and building blocks.

There might be no satisfactory short answer to the question: why are there so many tensions within the patent laws and yet so much failure to resolve them?²⁰⁰ I will not here attempt any sort of carefully balanced or fully sourced answer, but I will repeat what seems to be some of the commonly received notions, including those that commonly suppose there are some technological divisions, some interest-based divisions, and no small amount of uncertainty as to each. Related to all of the other observations is that there seems to be, on the one hand, no natural alignment of interests among persons affected by the patent system but, on the other hand, there seem to be public expressions of partisan opportunism.

Perhaps realizing that everything in logic systems design, in computer science, and switched network design is simply applied Boolean algebra, and none of it is anything other than obvious, it is commonly supposed in the popular press that at least some in the computer-related industries believe the progress of their businesses lies in few patents, no patents, or short duration patents.²⁰¹ Then again, once their competitors get on board, a sort of collective action problem tends perhaps to turn the industry on its head as defensive investments in patent applications—many of which actually are granted, and some of

199. See *supra* notes 107 & 113 (suggesting two other keys to real patent reform). See Appendix B, *infra* (proposing a comprehensive quasi-restatement of patent law that is cognizant of the reality of patent practice, and that attempts to account for the seemingly antithetical cases and tendencies in the law).

200. I have previously answered such questions by saying that there ought to be no natural constituency in favor of incoherence, but this answer has not gone unchallenged. Another answer might deny the premise of the question: perhaps patent law is either just fine, or is as good as it is reasonably likely to become, and the complaints against patent law are greatly exaggerated. Other answers are commonly enough advanced that it may be appropriate to repeat some of them in the remainder of this subsection, without doing more than acknowledging in this footnote that each of them is not free from dispute. I believe I can say as a fact that there is some sense of competing interests among those affected by the patent laws, and that the real or apparent competition among them might account for some of the tensions, and for the failure to resolve the tensions, in patent law. There is a great deal of money, settled reliance, national wealth, and international trade involved.

201. See, e.g., Timothy B. Lee, *The Supreme Court Should Invalidate Software Patents*, FORBES (July 28, 2011), available at <http://www.forbes.com/sites/timothylee/2011/07/28/the-supreme-court-should-invalidate-software-patents/> (reporting that “computer programmers have been sounding the alarm [about software patents] for decades”, expressing concern that the then-pending patent reform legislation working its way through Congress was not likely to invalidate software patents, and urging that the Supreme Court should do so).

which pay handsome rewards—become genuine conventional assets on which the industry then comes to rely.

Perhaps realizing that pharmaceuticals and bio-engineered products are expensive to make and to test, but cheap to replicate and economically unfeasible without subsidies, but that subsidies are not in the cards, it is commonly reported in the popular press that at least some in the chemical-related industries prefer some patents of long duration.²⁰² At the same time, there are reports of attempts to tweak existing drugs enough to earn a new patent, but with little that could be called nonobvious innovation.²⁰³

Then again, perhaps thinking that cheap beats expensive, and free beats cheap, some plurality of users probably believe that they have a common cause against the monopolists who use their patent rights to “extort” economic rents in excess of what some might conceive the marginal price ought to be.²⁰⁴ Or, perhaps supposing that patent lawyers enjoy the preening that comes from apparent mastery of an incoherent body of knowledge, while profiting from the relative scarcity of patent lawyers created by what might seem to be artificial barriers to entry imposed by the standards of admission to practice before the PTO, many who envy them and wish they could be like them simply oppose the system the patent lawyers seem to enjoy and may have created.²⁰⁵

Finally, those concerned about the fundamental incoherence, casual silliness, and pompous obfuscations of the entire system, and especially if they are concerned about the importance of leaving building blocks and common knowledge in the public domain, may begin to grow suspicious of the entire enterprise.²⁰⁶ It may seem that the great

202. See, e.g., Debate: *Should Patents on Pharmaceuticals Be Extended to Encourage Innovation?* (Josh Bloom: “Yes, Innovation Demands It”), WALL STREET JOURNAL (Jan. 23, 2012), <http://online.wsj.com/article/SB10001424052970204542404577156993191655000.html> (opining that “The American pharmaceutical industry is seriously ill. And extended patent protection is the medicine the drug companies need . . . Currently, bringing one new drug to market takes roughly 14 years, at a cost of about \$1.3 billion. For every drug that makes it to market, more than 50 other research programs fail.”).

203. Cf. *id.* (“There are some drugs that deserve less patent protection. These are the so-called line extensions—where companies simply tweak existing drugs enough to earn a new patent. Virtually identical to the existing compound, these provide little real innovation. . . . To discourage that and to keep drug companies focused instead on innovative treatments, patents for line extensions should be shortened, perhaps by three years or so, while patents for high-risk, first-in-class drugs and those that address unmet medical needs should be extended significantly . . .”)

204. This seems a rather intuitive position to take, and some plurality of persons might espouse it.

205. *Id.*

206. This general perspective seems not entirely uncommon in many of the pivotal opinions decided by the Supreme Court.

historical productivity enjoyed in the United States either came in spite of the patent system, or as an accident that could as easily (and more cheaply) have been achieved by substituting a series of lotteries or dice rolls for the adjudications that have taken place. But it would seem reckless indeed to tamper with a patent system that has coincided with such technological advances as have historically occurred.

It may seem that these competing interests are the healthy outworking of fundamental and irreconcilable policy differences. Or they may be toxic to the entire system. It is my relatively modest claim merely that they, and the preceding bullet-points are worth discussing at or before the point of implementing any more “reforms” along the lines of the AIA.

(d) Encroachment of other IP, and of non-IP masquerading as IP.

Consider, finally, the overlap among patent, copyright, trademark, and those pesky plagiarism offenses (and other conduct-based offenses) cleverly hiding together in plain sight, and making it progressively harder to correct the excesses of each colliding domain. There is no room here to do more than suggest the well-known problem of the simultaneously increasing scope of eligible subject matter in the different regimes.²⁰⁷

E. Summary: When Good Patents Go Bad (a systemic problem)

I can summarize this description of bad patents by making or emphasizing two points. One is the normalization of the problem. By that I mean that “bad” patents are not an abuse of the system, they *are* the system. I believe this conclusion is fairly supported by the preceding discussion.

The second point has to do with the urgency of the situation, heightened by the combination of patent harmonization and the convergence of the global economy. This is not explicit in what I have said, but I will briefly state the problem here. I believe I am identifying (and I am not alone in identifying) rather fundamental flaws inherent in the patent system. Any solution would involve some changes, perhaps altering the force of many patents. This is hard enough to do within a single polity because of partisan or factional advantages, and because of

207. Others have remarked upon this. I have as well. See Folsom, *Truth in Intellectual Property Revisited*, *supra* note 4, at 98-105 (characterizing ghost patents, phantom copyrights, and invisible trademarks, and proposing ways to check their cancerous expansion by using limited remedies proportionate to the strength of the right being asserted). See Appendix B, *infra* (outlining an application of the concept of limited remedies in a proposed quasi-restatement of patent law)

investments made in reliance upon existing law. But the difficulties would seem to be doubled or redoubled if undertaken on a transnational stage; if it would require the undoing of, or the lowering of, certain “high” standards of patent protection that may seem to have been imposed on certain other nations by those, including the United States, that may seem to have been so developed as to appear to have benefited from those arrangements. If it should be the case that the world is about to choke on all the “bad patents” that are the legacy of this failed system, how tragic it would be if it were to seem that this was being done just as other parts of the world begin to approach or to match the state of technological development at which they might anticipate reaping the benefits of the presently engorged and unsustainable patent system. The urgency of fixing this systemic problem is great. But the difficulty is to figure out how to do it. If the AIA is the best we can hope for, almost sixty years after enactment of our current Patent Act, the chances seem slight. I have a proposal to start the conversation that might result in real patent reform. It is a recodification solution.

III. SOLUTION:

THE FIRE NEXT TIME; NOTHING LEFT BUT RECODIFICATION

A. Standard Failed Solutions

What is needed is a robust reconstruction of a patent system while retaining continuity with the present. I have suggested the creation not only of newly transformed categories, but a new regime that contemplates different classes of patents and different remedies for each. It certainly may be that I am wrong in my particular formulation of the problem, and in my various suggestions for solving the problem. But I believe I am right at the most important level: if there is, in fact, such a thing as a “bad” patent, we would do well to figure out what it is, and then to see whether we cannot purposefully design a law that aims to minimize the incidence of bad patents and to optimize the issuance of good patents. The question is: How, exactly, might that conversation take place, with any realistic hope that it will lead to comprehensive and unified policy prescriptions? I think it would be well to consider the usual alternatives, administrative, judicial, and legislative. The limits of each will, I claim, lead to the remaining solution that might work—a codification project.

1. Administrative

An administrative solution would require at least these conditions: (1) a complex statutory-legal scheme, and especially one sufficiently robust and in need of relatively frequent changes beyond the ken of ordinary legislation within a reasonable compass, (2) a complex underlying economic, technical, or business arrangement that is not immediately intuitive or completely accessible to the generalist, but which requires special expertise, (3) some sort of inherent balance of forces (goals) within the subject matter so that no one goal would be optimized *ad infinitum* and at the expense of the common good, but would be counterbalanced by naturally opposing forces, and (4) some existing or likely-to-exist agency that has the power coupled with recognized expertise and probity to regulate and to do so with the confidence of Congress, courts, the regulated constituencies, and the general public.

For reasons historical, accidental, practical, and otherwise, it would seem these conditions for an administrative remedy do not presently obtain. The first two are present. The third is lacking. Finally, the U.S. Patent and Trademark Office as presently constituted does not have the authority or stature to regulate.

2. Judicial

A judicial solution would require some plurality of judges in the federal district courts, in the CAFC, and on the Supreme Court who are raised to the bench already possessed of some patent-specific experience, in numbers sufficient to generate some critical mass of practical wisdom and judgment on matters of patent law. Failing that, standard agency theory would predict that judges, having no prior experience, no substantial recurring responsibilities for patent cases, and no rational incentive to learn, will not do so, and cannot be expected to do so.²⁰⁸ In addition, the problems I (and others) have identified are comprehensive, inter-connected, deep, and broad. Judges are not

208. See generally STEPHEN M. BAINBRIDGE, CORPORATION LAW AND ECONOMICS, 24-25, 254-56 (Foundation, 2002) (discussing bounded rationality, agency costs, transaction costs, and other institutional and economic analyses applied to judicial behavior in the context of corporation law), previously substantially quoted, paraphrased, and applied to intellectual property law in Thomas C. Folsom, *Missing the Mark in Cyberspace: Misapplying Trademark Law to Invisible and Attenuated Uses*, 33 RUTGERS COMPUTER & TECH. L.J. 137, 228-36 (2007) (applying Bainbridge's analysis to trademark law in cyberspace); Thomas C. Folsom, *Truth in Intellectual Property Revisited*, *supra* note 4, at 90 (applying the analysis to patent law).

institutionally well equipped to map out a strategy for long-term development of an uncertain area of the law.

Outside of the CAFC (and even within the CAFC, based on the number of patent-experienced and non-patent experienced judges on that bench) it would seem the conditions for a judicial remedy do not presently obtain. To be sure, there have been signs in the Supreme Court of a fairly steady suspicion that patent law is not entirely sound, and there have been signs that, other things being equal, patent law should follow many of the norms of the more general law. But it seems these signs cannot suffice to chart any sort of predictable path towards reform.

3. Legislative

A legislative solution would require, at least on the record of the AIA, several years of continuity, substantial investment of time and effort, some organized and persistent constituency having an eye towards the common good (or at least a plurality of constituencies of relatively equal weight, together perhaps representing the various factions out of which a notion of the common good might emerge), and no small amount of luck. Such conditions may arise. They have not yet at any time since 1952 (assuming that they were present then, and overlooking the problems not addressed by the 1952 legislation). The dismal failure of the AIA even to address any of the punch-list of items that needed attention is a rather clear sign that the conditions for a legislative solution are not present.

B. An Example: Truth in Securities Revisited

What, then, might be done? I am proposing a quasi-recodification solution, based on the curious example from the field of the federal securities laws.

1. The Analogous Problem (the federal securities laws)

In rough outline, the story is fairly well known. Starting with a Special Study in the early 1960s, there came to be a general consensus both that there was room for improvement in the federal securities laws and regulations, and that there was a set of generally agreed-upon findings about the steps to be taken.²⁰⁹ The Special Study provided a

209. See generally JOEL SELIGMAN, THE TRANSFORMATION OF WALL STREET 299 (3d ed. 2003) (describing the 1961-63 Special Study, and characterizing its report as “undoubtedly the

road map within the Securities and Exchange Commission, accessible to legislators and to judges, and to the regulated industries and the public. Substantial legislation was enacted in 1964, among other things subjecting firms that had at least 500 shareholders and at least \$1 million in assets to the continuing reporting requirements, proxy, and short swing trading rules of the Securities Exchange Act of 1934.²¹⁰ A next step was to create an “integrated disclosure system” coordinating and indexing the required disclosures under the 1933 Securities Act and the 1934 Act, leading to streamlined registration forms, and a standard index for disclosure items required under the two acts (making more rational the thirty-odd years of independent and not entirely consistent development of disclosures required under the two acts in respect of very nearly the same basic information).²¹¹ The first detailed articulation of the integrated disclosure system concept was in a law review article, “*Truth in Securities*” *Revisited*.²¹²

2. Truth in Securities Revisited (a surprising success)

In his highly influential article, Milton Cohen, former director of the SEC’s 1961-63 Special Study, wrote that

[T]he combined disclosure requirements of these statutes would have been quite different if the 1933 and 1934 Acts [the latter as extended in 1964] had been enacted in opposite order, or had been enacted as a single, integrated statute Accordingly, it is my plea that there now be created a new coordinated disclosure system having as its basis the continuous disclosure system of the 1934 Act and treating “1933 Act” disclosure needs on this foundation.²¹³

Calling Cohen’s article a “brilliant plea” Professor Louis Loss picks up the narrative, noting that “[t]hrough the mills of God grind slowly” the article “set in train a series of events that culminated in the drafting of the proposed Federal Securities Code”²¹⁴ with which Professor Loss

single most influential document published in the history of the [Securities and Exchange Commission]” and stating that “it provided a foundation for most of the reforms that occurred in the securities industry during the ensuing fifteen years.”).

210. *Id.* at 314-15, 323. Recently enacted amendments have raised those thresholds. See The Jumpstart Our Business Startups (JOBS) Act (2012). The White House press release is available at <http://www.whitehouse.gov/the-press-office/2012/04/05/president-obama-sign-jumpstart-our-business-startups-jobs-act>.

211. *Id.* at 604-05.

212. Milton H. Cohen, “*Truth in Securities*” *Revisited*, 79 HARV. L. REV. 1340 (1966).

213. SELIGMAN, *supra* note 209, at 606 (quoting Cohen, *supra* note 212, at 1341-42).

214. LOUIS LOSS, FUNDAMENTALS OF SECURITIES REGULATION 39-40 (2d ed. 1988).

himself would be associated as reporter and chief draftsman. Meanwhile, Cohen's proposals eventually became the guiding principle behind a series of purposive rule-making activities within the SEC, a process that ended with an essentially administrative implementation of substantial reform.

3. The ALI and Professor Loss (a nominal failure)

Just as Milton Cohen's article had been a surprising success, so Professor Loss' codification was a nominal failure, but ultimately a part of the same success. The reason was bad luck and bad timing, but straightforward enough. Shortly after publication of the Cohen article, an ABA section meeting in Chicago in 1966 determined to press for a broad codification study of all the existing federal securities laws.²¹⁵ In 1968, the Council of the American Law Institute undertook a project to produce a Federal Securities Code.²¹⁶ The ALI appointed Professor Loss as reporter, and filled the project with an outstanding group of consultants and advisors; and an informal advisory group including representatives of the staffs of the SEC and of the appropriate House and Senate subcommittees was invited to meet from time to time.²¹⁷ In May 1978, after some eight years of work by the reporter and the advisory groups, and approval by the ALI's Council, the members of the ALI approved the twenty-part Federal Securities Code produced by the team. The code was then printed and, running to 756 pages in bill form, and containing "upwards of 1,000 sections" was ready for the legislative process, to replace seven existing statutes by one unified code structure.²¹⁸

There followed a series of approvals by the ABA, by the SEC, and, with some resultant amendments, the production of an "Official Draft" in 1980, together with a commentary and cross-references to existing law.²¹⁹ The final form was introduced in the House and scheduled for hearings in 1981. That, as Professor Loss dryly observes, was the "Code's legislative high water mark."²²⁰ There followed the seating of a new Congress after the elections of 1980, and a turnover in committees, accompanied by some vocal opposition by some in the ABA.²²¹

215. *Id.* at 40.

216. *Id.*

217. *Id.*

218. *Id.* at 40-41.

219. *Id.* at 42-43.

220. *Id.* at 43.

221. *Id.*

Although the Code failed to be enacted into law, it was nonetheless a success in transforming and reforming the federal securities laws. It is safe to agree with Professor Loss' own assessment. First, as additional legislation or rule-making has been proposed over the next generation, the draftsmen have tended to look at the Code as a model.²²² Second, the Code has encouraged administrative reform, including the Commission's program of integrating the disclosure requirements of the 1933 and 1934 Acts²²³ (as Cohen's article had urged and as the Code had provided). Third, and "perhaps most significant" is that portions of the Code have been cited (as of 1988) in "several dozen cases (several in the Supreme Court) as if they were a restatement of existing law."²²⁴

This was, by the way, no easy accomplishment. Although it did lead to the practical integration of some seven statutes, and to integrated disclosure regulations, it also affected many contentious and debatable subjects: proxy rules, tender offers, creeping tender offers, short swing trading, insider trading, and various flavors and versions of fraud depending on context, among other controversies.

Returning to my earlier conclusion that, when it comes to real patent law reform, there seems to be a failure of conditions appropriate to any of an administrative, judicial, or legislative solution, the "failure" of the Federal Securities Code is a heartening tonic. The enduring success of the proposed Securities Code is that it provided a model, a road map, and a target for each of the three bodies to approach. I propose that the same sort of project can and should be implemented for Patent Law (and better still, it could become part of a yet grander project to combine the three federal regimes currently under the Lanham Act, the Copyright Act, and the Patent Act into one coherent, unified whole, something not attempted in the United States since the 19th century).

C. *An IP Quasi-Recodification Proposal*

1. Patent Law, Recodified

I propose a two-track project, one growing out of the other. The first track is the simple challenge merely to translate existing patent law into a single coherent restatement that actually restates the governing principles in a coherent manner, and then to translate that restatement into the language of a code that might be enacted. The second track is to

222. *Id.* (with my own opinion updating Professor Loss' observation made in 1988).

223. *Id.*

224. *Id.* at 44.

incorporate a series of alternate provisions, each fairly encompassing one of the plausible competing substantive or procedural revisions.

The wager is whether it is even possible to complete a project along the lines of the first track. The payoff would be the production of a document that fairly presents the alternatives. A final benefit would be the ability to de-aggregate patent law. It might actually make sense to set a number of different classes of patent: a class A patent, class B, or class C patent. An applicant might opt to seek a novelty-class patent only, for a shorter term. An applicant might opt to seek a non-obviousness-class patent, for a substantially longer term. There could be yet other incentives: a presumption of validity clearly limited to only those matters actually put in the record before a patent examiner. This would incentivize disclosure so that the duty of candor becomes a self-enforcing incentive to immunize a patent from subsequent challenge. The benefits can be further cataloged. If, in fact, pharmaceuticals are fundamentally different from electrical or computer engineering, then why not actually treat each (and others besides) differently under a deliberately designed law, fashioned for the purpose and yet still unitary in its general principles?

What I am proposing is a quasi-recodification/restatement. By *quasi-recodification/restatement* I signify an exercise mid-way between a restatement and a codification. As a restatement, it would accurately describe what is actually the state of patent law, including all cases, rules, exceptions and counter-rules, set forth in order and comprehensively. As a codification, it would be written in the form of operative language, expressed as a comprehensive statute. As a “re”-codification, just as a restatement, the express intent and purpose of the statute would be to preserve all of the law, as it is, without any change in result. This would constitute real reform in the sense of clarifying the law by putting it in orderly and coherent form.

Finally, as a “*quasi*”-recodification or restatement it would be successful upon publication. This is because it would provide a clear target for actual legislation, for judicial development of the law, and for any administrative growth. Just as it was not, in hindsight, fatal to the ALI Securities Law codification project that it was never enacted into law, the same could be conceded, prospectively, to a patent law project. The mere existence of an authoritative, orderly, and comprehensive model would both provide a target and a way of shaping debate.

As an example, suppose that we could say, in respect of subject matter, two things at once: (a) there is substantial doctrine to the effect that mental steps; arts or methods neither tied to a machine nor

transforming a physical object from one state, quality, or characteristic to another; “algorithms”; personal or athletic skill; and abstract ideas, and the like does not constitute patentable subject matter, and yet (b) there is a body of issued patents, many of them from the earliest periods for which we have records, and certainly predating what is sometimes called the “information age” in which all or most of that supposedly forbidden subject matter has, in fact, been accepted (or, making allowance for the shadowy nature of claims in the years prior to “modern” peripheral claim techniques) might very well have issued. A restatement/codification could arrange the points in order, perhaps reconciling them, or at least accounting for one or the other as exceptions to a more general rule.

Again, suppose we could say, in respect of that elusive “something” beyond novelty which is often assumed to be necessary for the existence of an “invention” both that (a) there is a set of patents issued to claimed inventions that by no stretch of any honest imagination have anything at all beyond novelty, (b) there is a set of issued patents that comprise novelty plus something that might amount to economic value, or socially desirable innovation, or job creation, or growth of industry or new technologies, or that cover a product or process that might never have been invented, or disclosed, or exploited, or commercialized, or attracted investment capital absent an issued patent, (c) there is a set of issued patents that comprise novelty plus some secondary factor suggesting that no one else had figured out the claimed invention, therefore it might be worthy of a patent, and (d), finally, there is some residual set of patents possessed of novelty and that are also non-obvious, not the subject of simultaneous independent discovery by two or more teams, truly “inventive” in the sense that they do not involve mere routine or brute force engineering, and result either from something like “genius” (or, by the currently acceptable equivalent word sometimes signifying very nearly the identical concept “not mere routine engineering”; not something that a person having ordinary skill in the art would have been able to see by any obvious insight or understanding), or result from “accident” or “luck” (terms that, probably, best describe a substantial number of non-obvious inventions made in the absence of genius and in the absence of a standard plan). A restatement/codification could at least provide a set of categories and might provide a rational and predictable basis for disparate treatment of different classes of patents within a unitary framework.

These examples could be multiplied: what if one patentee more nearly did act as a lexicographer and actually appended a glossary of

sorts; what if another patentee more nearly established that there were some reason in genuine equity to extend the literal claims of a patent to read on some allegedly infringing product or process not within the scope of the claims as written; what if someone could explain why he or she was in the position of a non-practicing inventor (perhaps the open and notorious infringement of the patent prevents or substantially hinders the patentee's ability to attract investment capital, prevents or hinders the ability of the patentee to bring a product to market, or reduces the value of any license royalty that another party might be willing to pay); and so on.

A little candor would go a long way. A recodification could discriminate among patents by providing a taxonomy according to which they might be graded. If patents could be classified by type, with remedies to vary accordingly, then much good could be accomplished. A mere novelty patent might have a five-year effective term (as a flexible remedy might be so discounted), and the remedy might be attribution (even if no further damages were warranted). A novel pharmaceutical patent might, upon a showing that without a monopoly return the new product would not have been brought to market, have an effective term coincident with the full statutory 20 years (measured by damages or another remedy so calculated) or an effective term otherwise sufficient to collect a reasonable economic return, with an injunctive remedy coupled with damages. The crux of my argument is that this is not an impossible goal. There are two obstacles, and neither is insurmountable. The first is the sense that all is well and that no real reform is needed. The second is the conviction that patents somehow "cannot" be divorced from the one-size-fits-all model that has universally obtained until now, without at the same time abandoning a unitary patent system. I can address the first obstacle in a separate article, or can rest upon the statement of Congress that there are unbearable flaws in the patent laws. But the second obstacle is, perhaps astonishingly, non-cogent since eBay. Flexible remedies can provide precisely the umbrella (or penumbra) beneath which to refashion a workable patent law without upsetting settled law and while maintaining a unitary patent system within which diverse consequences may reasonably apply.²²⁵

225. See Thomas Folsom, *Truth in Intellectual Property Revisited*, *supra* note 4, discussing the purposeful application of flexible remedies to limit or remove the harmful impact on the public interest of "bad" or weak patents (I call them "ghost patents"), as permitted by *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006). With a limited remedy, there is no need to abandon a unitary patent system, but the residual ghost patents can be identified and categorized according to patent strength, and disarmed on a case-by-case basis at the remedy stage.

2. Intellectual Property, Recodified

The same approach could and should be extended. Just as it has proved possible to restate the law of unfair competition,²²⁶ so it should be integrated with the patent restatement and codification project, and to these may be added the project of copyright. Just as codification of securities laws integrated common matter among some seven statutes, so the same may be done among the various intellectual property regimes. As so much of the subject matter is common among the disciplines, by so much will common definitions and common rationales improve the coordination and clarification of each of those disciplines.

Appendix B illustrates a series of section headings to make it more clear what I am proposing in the field of patent law. These headings sketch out the different levels of “innovation” and so permit a categorization of patents according to “patent strength”, for example, from A to F according to different levels of confounding and coincident factors, permitting a relative assessment of patent quality. I have provided the Appendix to make the project I am proposing more concrete. The Appendix outlines how to provide patents of different effective duration within a generally uniform system, but with diversity of consequences according to proportionate and limited remedies based on category and subcategory strength of the patent at issue. This is an invitation to real reform, not according to my own devices, but with the better assistance of a group more qualified than I to take up the project. I contend only that real reform is made possible by the exercise of recodification.

3. Some Reflections on Disentangling Intellectual Property from Intellectual Conduct

I have elsewhere contended that much of what presently passes as intellectual property is not really that at all.²²⁷ The prevalence of non-literal patent infringement by judicial equivalents, like non-literal

226. The work of Professor Robert Denicola and Professor Harvey Perlman as co-reporters, and of the ALI in support of the recent restatement is a model of excellence in bringing a measure of coherence to a field marked by difficulty. The existence of the Restatement (Third) of Unfair Competition ought to be an encouragement to produce something similar in the field of patent law.

227. I have called them invisible trademarks, ghost patents, and phantom copyrights—harm-based offenses masquerading as intellectual property-based offenses, all of which could be better managed by a candid assessment of a flexible remedy, for articulated and specified reasons which a court could supply. This technique could provide an interim path towards real reform of the intellectual property laws. See Folsom, *Truth in Intellectual Property Revisited*, *supra* note 4, at 98-106.

copyright infringement by impermissible copying at various levels of abstraction has led almost imperceptibly to a regime that must candidly be recognized as based not on any recognizable doctrine of Constitutionally delimited patent or copyright, but on some sort of anti-plagiarism instinct, or some sort of unfair competition instinct (to prevent copying of non-patented and non-copyrighted materials that might somehow create a likelihood of source confusion). It is long past time to clarify what is actually happening under the rubric of intellectual property, to consider how much of this actually promotes progress of anything worth the “embarrassment” of the exclusive rights, and finally to reconsider what contributes to the common good. The recodification project might actually be the means to do this. Nothing else seems likely to do the trick.

CONCLUSION

I have summarized the AIA to support three claims. First, the AIA does a number of significant things, not least of which is to create a hybrid first-to-declare system, which is neither the traditional U.S. first-to-invent, nor the standard first-to-file of the other nations.

Second, the AIA leaves very much undone. If “bad patents” were a problem before, they still are. Further if “bad patents” are a function of problems at the core (inherently indistinct subject matter, and with the concept of “obviousness”), and at the periphery (essential difficulties in the existing doctrines of enablement, description, claim interpretation) of patent law; if those are compounded by problems at the level of applying what would seem to be ordinary principles of settled law (remedies, injunctions, and secondary liability), and by the difficulty of disentangling the various mixed motives and labyrinthine rationales for granting or enforcing patents in the first place, then it is a commonplace that the main things in patent law are by no means plain. The “bad patent” is not an abuse of the system, it is the system.

Third, while it is not impossible that there might be a solution provided by existing juridical agents, administrative, legislative, or judicial, it appears unlikely. But a resolution could come by way of a quasi-recodification project, proceeding on two tracks. A first track would attempt merely to restate, in form appropriate for legislation, but in some internally coherent manner, a code that would duplicate existing outcomes, clarifying but not re-trading any of the precarious accommodations presently in place. A second track would provide significant alternative provisions so that it would become more nearly possible clearly to see what results would follow from selecting among

the plausible choices. The result would be a regime, which, even if unchanged in outcomes, would be more systematic, principled and predictable. Better, the result would be a regime more adaptable to specific changes by deliberate choice because the alternatives would be not only identified but connected—this last is significant because of the interconnections among patent doctrines, such that a change in one might necessitate changes in others, and the connected doctrines could be keyed to one another in the proposed code.

I propose that a codification project, not unlike the one sponsored a couple of generations ago by the American Law Institute in the context of the federal securities laws could actually succeed in bringing real patent reform. Such a solution is needed, and soon, before the scope, intensity, and duration of the patent laws become unbearable, and as that increasingly unbearable burden becomes yet heavier with increasing international harmonization around fundamentally flawed doctrines. As the current fundamental flaws of patent law are being woven into an international system, they will become harder and harder to fix because they will require more than a single nation's voice.

As was proposed in a work of fiction, it would be well if, without irony, it might be said from a vantage point several years in the future:

Imagine, a world without [bad patents]. Six years ago, the [rate of bad patents] had reached epidemic proportions. It seemed that only a miracle could stop the [wasteful legal and financial] blood-shed, but instead of one miracle, we were given [37 of them, all tucked into the America Invents Act, quickly followed by a program of real and fundamental reform]. Within 3 months of the . . . program, [bad patent rates] had reduced [by] 90 percent.²²⁸

228. Paraphrasing a slogan (three miracles) from the motion picture "Minority Report" based on a short story—a fictional work imagining the ability of a group of three "precognition" seers (referred to in the slogan used in the motion picture as "three miracles") functioning as part of an official "pre-crimes unit" that would arrest murderers before the fact, thereby creating a world without murders, previously at epidemic levels. Though the AIA took the same six years to develop, I don't think the AIA will do the trick of creating a better world any more than the precognition project did, but a quasi-recodification project just might. *See generally* Minority Report, *supra* note 2 (the short story) and *supra* note 169 (the motion picture).

APPENDIX A
THE AMERICA INVENTS ACT (SUMMARY OF THE SECTIONS)

Because the AIA seems to be an aggregation rather than an orderly arrangement of integrally designed or organic elements, I will for purposes of this Appendix plead guilty to counting rather than analyzing, according to the saying: “those who can, analyze; those who can’t, count.”²²⁹ I will simply count the thirty-seven sections of the AIA in sequential order. This is for the benefit of the non-patent lawyer who might be forgiven for assuming that an amendment so significant as this might have had some underlying organic plan or order to it, in addition to mighty feats of more or less technically proficient drafting, and some very nice and even elegant formulations.²³⁰ I will simply count off the 37 sections, in three groups of ten AIA sections each, and one last group of seven.

1. *Sections 1-10.*

Here are the first ten. To emphasize major changes, I will refer to provisions that, though existing in the Patent Act, are substantially rewritten in the AIA as “new” rather than merely “revised:”

1. *Short Title.*²³¹ The act includes a nice title, naming its sponsors, and it includes a table of contents.

2. *Definitions.*²³² The act includes new definitions, including some that may lead to some clarification in the law, though they seem traditional. The terms include the “claimed invention” and the “effective filing date.”

229. Traditional.

230. It is not impossible to construct a more logically coherent structure to the AIA by grouping its various provisions under topical categories, for example: first [inventor] to file; prior art redefined; *inter partes* pre-issuance proceedings with third party submission of certain categories of prior art; circumstances for dispensing with inventor’s oaths and for correction of inventorship; derivation redefined and the creation of derivation proceedings; litigation changes; supplemental proceedings to cure some of the (trivial) events that constitute “fraud on the patent office” but not those that resulted from “material fraud” (sic); inserting paragraph sub-numbering in the previously undesignated paragraphs of section 112 and some half dozen other current sections with undesignated subparagraphs; technical changes, and so on. But that would deprive the reader of a sense of the Act as it comes to us from the hands of Congress. Joe Matal has now (as this article is being locked down for publication) finished his valuable legislative history of the AIA. See Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. BAR J. 539 (2012), and see note 15 *supra* (citing Part I of Matal’s superb work). I confess that such omissions as may remain in my article concerning the legislative history behind the House Report are due at least in part to timing, and the reader is advised to look to Matal for details.

231. Pub. L. No. 112-29, 125 Stat. 284, 284 § 1 (2011).

232. Pub. L. No. 112-29, 125 Stat. 284, 284-85 § 2 (2011).

3. *First inventor to file.*²³³ Significantly, this section is not captioned the first-to-file but the first-inventor-to-file, including new section 102 on novelty and prior art, a very slightly revised section 103 on non-obviousness, new section 291 (derived patents), and new section 135 (governing “derivation proceedings” instead of interferences). It incorporates new definitions of prior art for purposes of section 102²³⁴ and hybrid exceptions to create a one-year grace period.²³⁵ One might suppose that for purposes of the section 103 obviousness inquiry, not only the section 102 prior art definitions, but also the section 102 exceptions, and maybe (or maybe not) the carryover of effectively filed-in-the-US-but-not-yet-published subject matter will also apply; the AIA does not explicitly say that the standard for section 103 prior art will incorporate all of section 102 prior art that is analogous or pertinent (“within the art to which the claimed invention pertains” remains in the new section 103, just as in the current section 103), and so one might imagine the questions will be decided based upon current rationales, as adjusted for the new regime.

The section 102 grace period during which the inventor’s own activity is not prior art against the inventor for novelty purposes (the exception contained in the new section 102(b)), might be applied identically for purposes of the obviousness inquiry under new section 103, because the crucial date for both is now the time “before the effective filing date” and so the exception for section 102 should be thought to carry over routinely to section 103. Then again, old habits die hard, and it is not impossible section 103 of the AIA might be construed to omit the grace period in favor of the inventor. And yet it is more likely to shield the inventor against the inventor’s own work that is “available to the public” while counting it, for purposes of an obviousness (or a derivation) inquiry, against all other persons.

233. Pub. L. No. 112-29, 125 Stat. 284, 285-93 § 3 (2011).

234. The new definition is mercifully shorter, and contained in a single place, compared to current section 102, and its various current subparagraphs (a) through (g). New section 102 simply designates as prior art references those that are “patented, described in a printed publication, or in public use, on sale, or otherwise available to the public” before the effective filing date (emphasis added). 35 U.S.C.A. § 102(a)(1) (West 2011). The AIA also carries forward the substance of current 102(e) (making prior art a patent issued on an application filed, but not published, prior to the effective filing date in question). *Id.*

235. New section 102 provides that a disclosure made one year or less before the effective filing date by an inventor, or by someone who obtained the subject matter directly or indirectly from an inventor, shall not be prior art. 35 U.S.C.A. § 102(b)(1) and (2) (West 2011). This creates, in effect, a one-year grace period in favor of the disclosing inventor, during which time the inventor’s activity does not count as prior art against the inventor.

In addition to these provisions, section 3 of the AIA also contains an effective date 18 months after the date of enactment²³⁶ and carry over provisions for all patents that issue on applications filed prior to the effective date that will require everyone to keep two sets of Patent Acts for the next twenty-one and a half years or so and then during the time necessary to resolve any pending interferences,—one set that incorporates the AIA changes, and another set of laws “as in effect on the day before” the effective date of the AIA. That other set will need to contain at least the presently existing 102(g), 135, and 291; and maybe 102(a), 102(b), 102(c), 102(d), 102(e), and 102(f), among others. That is to say, interference proceedings under the current first-to-invent regime will continue for the life of existing patents and those filed prior to the 18-month-from-September 2011 effective date of the AIA for these purposes; and maybe current prior art definitions will continue as well to the extent those are incorporated within the statute “as in effect” on the day before the effective date of the AIA.

Finally, section 3 of the AIA contains two separate “sense of Congress” provisions. The first states that the conversion from first-to-invent to first-inventor-to-file will promote the progress of “science and the useful arts” by securing to inventors the exclusive rights to their discoveries and by providing inventors with greater certainty.²³⁷ The second states that the conversion is designed to promote international harmonization.²³⁸ To those who say that Congress, in forsaking first-to-invent in the AIA might possibly be exceeding the boundaries set in Article I, section 8, clause 8,²³⁹ premised on the notion that there is a Constitutional limitation to the freedom of Congress to legislate, here is a response from Congress indicating it is aware of the problem. Putting aside, for the moment, the question whether it is constitutionally permissible to forsake the first-to-invent system, this phraseology that combines “science and the useful arts” in the sense of Congress might also raise a different question.²⁴⁰

236. The AIA’s date of enactment is September 16, 2011. The date that is 18 months later is March 16, 2013. Other provisions of the AIA have different effective dates.

237. Pub. L. No. 112-29, 125 Stat. 284, 293 § 3 (2011).

238. *Id.*

239. 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.” U.S. CONST. art. I, § 8, cl. 8. See my brief comments on the question whether it is constitutionally permissible to forsake the first-to-invent system, *supra* notes 105-113 and accompanying text.

240. Congress has in the past squarely supported the grammatical hypothesis: that is, the view that the parallel phrasing of the one-sentence grant of Constitutional power in article 1, section 8,

4. *Inventor's oath or declaration; and subparagraph designations.*²⁴¹ There are provisions smoothing the inventor's oath, and providing yet more aid to the assignee of the inventor's rights for cases in which the inventor cannot or will not sign (amending sections 115 and 118), and cleaning up (removing) the current problems of wrongly named inventors (amending section 256) by eliminating the well-intentioned but curiously perverse requirement in current law to the effect that the error in naming inventors must have been "without deceptive intent" as a condition to cure the error.²⁴²

clause 8 was intended to link the concepts of "author" and "writings" (copyright) to progress in "science" and was intended to link the concepts of "inventor" and "discoveries" (patents) to progress in the "useful arts." This is, of course, the reading of that sentence adopted by both houses of Congress when enacting the 1952 Patent Act. H.R. REP. NO. 1923, 82d Cong., 2d Sess., at 4 (1952); S. REP. NO. 1979, 82d Cong., 2d Sess., at 3 (1952). So has the Supreme Court. *E.g.*, *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) (Stevens, J., concurring in the judgment) (noting "The Constitution allows Congress to issue patents "[t]o promote the Progress of . . . useful Arts. . . ." and then quoting an earlier preemption case for the full clause: "Science and useful Arts.") As even Homer is said to nod, perhaps Congress meant nothing by so casually conflating copyright's goals with those of patent law when giving its sense of the AIA. The significance of the distinction is that copyrightable "science" in the Constitutional grant was arguably understood as signifying "knowledge" and that "progress" therein would have been understood to connote the advancement, not of simple aesthetics, pleasure, or commerce, but of knowledge; and that the patentable "useful arts" were arguably understood to comprise "technological arts" almost certainly conceptually different from, say, the (unpatentable) "liberal arts" or "fine arts." John Thomas, *The Patenting of the Liberal Professions*, 40 B.C.L. REV. 1139, 1164 (1999). The Constitutional language can be found at U.S. CONST. art. I, § 8, cl. 8. My brief comments on the question whether it is constitutionally permissible to forsake the first-to-invent system are *supra* at notes 105-113 and accompanying text.

241. Pub. L. No. 112-29, 125 Stat. 286, 293-97 § 4 (2011).

242. If one goal of the current statute were to distinguish between perfidious and non-perfidious applicants, on the assumption there was some non-negligible problem with falsely modest inventors or wrongly ambitious non-inventors deliberately colluding, so be it. The perverse gap in the current statute is that the provision fails to achieve a right result in the case of the intentionally stolen invention, on a patent issuing from an application based upon an oath that was certainly made with deliberate intent to deceive. It is an insufficient answer to say current law allows for the interference proceeding in such a case. It is insufficient not only because of the relatively short period of time in which an interference must be brought and because of the various burdens and levels of proof, but because the proceeding is inapt. The interference proceeding to determine priority is based on the notion of two independent acts of invention, each by a legitimate but separate originator of the claimed invention. The strange case of the deliberately false claim to inventorship by a non-originator is based upon theft, misappropriation, and fraud. The new provision, coupled with the new derivation proceedings, is a welcome fix. *Cf.* *Univ. of Colorado Found., Inc. v. Am. Cyanamid Co.*, 196 F.3d 1366 (Fed. Cir. 1999) (deciding such a case, outside of the current Patent laws, and over the defendant's preemption objections, as an instance of common law fraud or restitution under state law; in effect correcting inventorship and assigning the patent to the correct inventors on a lawsuit filed more than ten years after the patent issued, rather than invalidating it for an error with deceptive intent).

Section 4 of the AIA also, and at last, reforms current section 112 of the Patent Act by adding subtitles and designations (a) through (f) to the six previously undesignated subparagraphs. These will most likely end the patentees' inside knowledge, by which current section 112 is routinely but informally handled by reference to its first unnumbered paragraph, its second unnumbered paragraph, and so on. Nearly sixty years after enactment of the current Patent Act, here at last is a reform we might all applaud. To those who charge patent law is captive to the patent bar or to other dark forces, here is a definitive answer to that indictment, in at least one particular.²⁴³

5. *Defense to infringement based on prior commercial use.*²⁴⁴ Here is a limited patent law version of copyright law's independent creation doctrine. New section 273 provides that prior commercial use will now be a defense to patent infringement. The defense, however, requires not merely that there be a "good faith" commercial use in the United States, but also that it must have occurred "at least 1 year before" the effective filing date of the claimed invention, or "at least 1 year before" the invention was disclosed by the inventor to the public in a way that qualified the inventor for the exception from prior art under new 102(b).²⁴⁵ But the defense must not be "unreasonably" asserted, on penalty of the party pleading it becoming liable for an award of attorney fees to the other party.²⁴⁶

6. *Post-grant review proceedings.*²⁴⁷ There is an opportunity to put written prior art, comprising patents or printed publications, before the Patent Office, by a person who is not the owner of the patent. These are contained in new sections 311-319 governing *inter partes* review of a patent on a ground that could be raised under new section 102 or 103.

243. And there is more. Section 20 of the AIA adds subparagraph designations to yet other sections currently carrying undesignated subparagraphs. See *infra* note 265 and accompanying text.

244. Pub. L. No. 112-29, 125 Stat. 284, 297-99 § 5 (2011). This covers a category of non-inventor, non-public, or secret uses. If such uses are not public and are not otherwise available to the public, they are insufficient to invalidate a patent issued to another, and would create liability in the prior user. Under the new provisions qualifying prior use will constitute a defense to a charge of patent infringement.

245. Pub. L. No. 112-29, 125 Stat. 284, at 14 (2011). 35 U.S.C.A. § 273(a) (West 2011).

246. 35 U.S.C.A. § 273(a). New section 273(f) proscribes and penalizes a prior commercial use defense pleaded by a person found to infringe a patent, and who "fails to demonstrate a reasonable basis" for asserting the defense.

247. Pub. L. No. 112-29, 125 Stat. 284, 299-313 § 6 (2011). New section 311(b) limits the scope of *inter partes* review to prior art under section 102 or 103 consisting of patents or printed publications. New section 311(a)(3)(B) permits expert opinions, presumably limited to the permissible references. The broader provision under which a patent might be invalidated on any ground, and not just the prior art grounds of section 102 novelty or section 103 non-obviousness, is section 282(b)(2) or (3) (invalidity of a patent).

There is also an opportunity, for a person who is not the owner of the patent, to put before the Patent Office, after grant, any grounds upon which invalidity could be asserted. These are contained in new sections 321-329 governing post-grant review of a patent on any ground.

7. *Patent Trial and Appeal Board*.²⁴⁸ The Patent Trial and Appeal Board (PTAB) is the new name for that body formerly known as the Board of Patent Appeals and Interferences (BPAI), but renamed now that there will be, prospectively, some twenty-one years from now, no more interferences. Under the same provisions that keep two sets of patent laws, perhaps it would be possible for the board to retain two names, retaining the good old BPAI label for the old-style interferences that will remain for the prior filed patent applications—maybe the prior name provisions will be among those retained under the provisions of the Patent Act that were in effect as of the day before the effective date of the AIA—and using the new PTAB label for the board's other activities under the new provisions of the AIA.

8. *Preissuance submission by third parties*.²⁴⁹ There is an opportunity to put written prior art, and certain patentee statements, into the examiner's file (the file wrapper).

9. *Venue*.²⁵⁰ The act might make it more difficult to bring multiple defendants into a single lawsuit within a particular judicial district. Perhaps this is to discourage filing in the Eastern District of Texas against a broad array of defendants in a single proceeding.

10. *Fee setting authority*.²⁵¹ There are statutory fees, but there is a discretionary fee schedule, not only small entity, but micro entity, and some interesting categories.

Many of these ten sections are worthy of detailed examination, discussion, and commentary. I have a different purpose, however. I list these so that a non-insider, non-patent lawyer will at least have an idea of the scope and breadth of the AIA.

2. *Sections 11-20*. Here is the next set:

11. *Fees for patent services*.²⁵² This includes some of the old favorite services and fees, plus some others.

248. Pub. L. No. 112-29, 125 Stat. 284, 313-15 § 7 (2011).

249. Pub. L. No. 112-29, 125 Stat. 284, 315-16 § 8 (2011).

250. Pub. L. No. 112-29, 125 Stat. 284, 316 § 9 (2011).

251. Pub. L. No. 112-29, 125 Stat. 284, 316-20 §10 (2011).

252. Pub. L. No. 112-29, 125 Stat. 284, 320-25 §11 (2011).

12. *Supplemental examination.*²⁵³ Here is a, perhaps somewhat risky, way to cure an inadvertent, non-existent, or quasi-fraudulent “fraud on the patent office.” The risk is that for those cases in which there actually was fraud—the AIA describes it as a “material fraud” which would be redundant were it not that the existing category has a history of attracting all sorts of peculiar notions of what constitutes an offense—there is now an increased exposure. Not only is there no cure to a patent issued after “material fraud,” but the persons, necessarily including the lawyers, involved in the fraud are explicitly warned of referrals to the Department of Justice, and to the disciplinary office of the PTO. To those who might say this was always a possibility under current law, and that neither the Attorney General or the Director of the PTO are likely to show much stomach for such referrals, all I can ask is this: if there were a problem with spurious claims of fraud on the Patent Office under current law when the only strategic advantage was the chance to invalidate a patent, how can the problem be removed when the opportunistic advantage is now increased by explicitly targeting the main participants involved with the patent? The strategic decisions are only made that much more delicious by the fact that it will be the patentee who determines whether to volunteer the information by triggering a request for supplemental examination, under regulations to be promulgated by the PTO, in respect of some substantial “new” question of patentability in connection with what very often could include a previous failure to disclose information to the office.

13. *Funding agreements.*²⁵⁴ Who wouldn’t be interested in these?

14. *Tax strategies deemed within the prior art.*²⁵⁵ Without declaring this particular form of business method to be non-patent eligible subject matter, we have a curious legal fiction. If the subject matter is a tax strategy, the act simply “deems” the subject matter of the invention to be (de jure?) within the prior art, even if it is not (de facto?) within the prior art.²⁵⁶ At the same time, the statute declares, if it were possible to make it so by saying so, that there should be no implication

253. Pub. L. No. 112-29, 125 Stat. 284, 325-27 § 12 (2011).

254. Pub. L. No. 112-29, 125 Stat. 284, 327 § 13 (2011).

255. Pub. L. No. 112-29, 125 Stat. 284, 327-28 § 14 (2011).

256. I do not generally endorse the technique of making distinctions in patent law between circumstances or relationships that actually exist and inferences that reasonably follow from them (*de facto*, or implications based on fact) and those that do not exist or do not follow but which constitute legal conclusions (*de jure*, or inferences as a matter of law, based on certain legally operative facts). I hope the irony of pretend prior art will be plain, and the consequences of the attempt to narrow patent eligible subject matter without saying so will become rather clear. See *infra* note 257.

that any business matter constitutes patent eligible subject matter anyhow.²⁵⁷

15. *Best mode requirement.*²⁵⁸ Without doing away with the requirement that the best mode be disclosed, the AIA eliminates the invalidity sanction for failure to comply with it.

16. *Marking.*²⁵⁹ This removes a forfeiture based on mis-marking.

17. *Advice of counsel.*²⁶⁰ The Act provides no inference shall be drawn from the failure to provide evidence of a legal opinion or other advice of counsel, and thereby might have something to do with the assessment (or not) of exemplary or punitive damages incident to infringement of a valid patent.

18. *Transitional program for covered business method patents.*²⁶¹ Within one year after the date of enactment of the AIA, the Patent Office is directed to establish, by regulations, a transitional post-grant review proceeding for reviewing the validity of “covered business method” patents. In addition, the location of an ATM machine shall not be deemed to be a regular and established place of business for purposes of venue in a case involving a covered business method patent. Rather than applying to all business method patents, however, this section “covers” only those that have to do with financial products. Together with AIA section 14, the effect is to carve out claimed inventions for tax strategy ideas so that none of them will constitute a valid patent and to review claimed inventions of financial product ideas so that at least some of them will not constitute valid patents. This leaves the rest of the universe of so-called business method patents, perhaps better denominated “mental step” patents or “liberal art” or “personal skill”

257. Here, Congress is gingerly dipping a toe back into troubled waters. It is well known that its enactment of a prior use defense against business method patents—in 1999 and in the immediate aftermath of the CAFC’s legitimization in its decision *State Street Bank & Trust & Co. v. Signature Financial Group, Inc.*, of wide-ranging business method patents—convinced some members of the Court that Congress intended thereby to ratify such patents while simultaneously convincing other members of the Court that Congress meant very nearly the opposite. *State Street Bank & Trust & Co. v. Signature Financial Grp., Inc.*, 149 F.3d 1368, (Fed. Cir. 1998). Compare *Biilski v. Kappos*, 130 S. Ct 3218, 3228 (2010) (Kennedy, J.) (“[a] conclusion that business methods are not patentable in any circumstances would render [the defense] meaningless”) with *id.* at 3251 (Stevens, J.) (“[the defense] may have been a technically unnecessary response to confusion about patentable subject matter, but it appeared necessary in 1999 in light of what was being discussed in legal circles at the time.”). It seems rather clear that Congress was disgusted with the business method floodgates opened by *State Street*, but unable to come to a conclusion what, exactly, to do about the root problem and was temporizing as seemed best to Congress to neutralize at least one branch.

258. Pub. L. No. 112-29, 125 Stat. 284, 328 § 15 (2011).

259. Pub. L. No. 112-29, 125 Stat. 284, 328-29 § 16 (2011).

260. Pub. L. No. 112-29, 125 Stat. 284, 329 § 17 (2011).

261. Pub. L. No. 112-29, 125 Stat. 284, 329-31 § 18 (2011).

patents, in the same position as they already are, but with a ritual genuflection, in AIA section 14, to the notion that Congress is not endorsing whatever it supposes the current position to be. This assumes Congress has read and understood *Bilski*²⁶² and all the relevant glosses on its meaning, and that circumstances will permit Congress neither to embrace nor reject whatever that might be. It seems as if the Congress ought to be able to decline to express its opinion on the current state of judicially created subject matter law as Congress gathers its collective wits, perhaps preparing to legislate another day while carefully deliberating in the meantime.²⁶³

19. *Jurisdiction and procedural matters.*²⁶⁴ There are explicit provisions amending section 1338(a) of Title 28, to provide that “[n]o state court shall have jurisdiction” over any claim for relief arising under a federal statute relating to patents, plant varieties, or copyrights. Here, the AIA is abrogating a recent Supreme Court case to provide that compulsory counterclaims become part of the mix of federal court exclusive jurisdictional claims arising out of patents and copyrights. “States” are defined to include the District of Columbia, Puerto Rico, and certain U.S.-related jurisdictions of the Virgin Islands, Samoa, Guam, and Mariana Islands. There are also new joinder rules.

20. *Technical amendments.*²⁶⁵ There are plenty of technical amendments, including the provision of subtitles accompanied by

262. *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) (probably holding that the “machine or transformation test” continues to be “a” clue, and perhaps “the” clue to patentability of a method, but is not the “sole” clue; that there is no categorical bar to so-called, but undefined, “business method” patents; but that at least some business method claims will nonetheless fail to qualify as patent-eligible subject matter, not on the grounds that they fail the machine-or-transformation test, but on other grounds, including the one that continues to bar patentability of matter that is merely an abstract idea, based on an analysis of the Supreme Court’s three prior computer algorithm cases, or based upon such old or new test as the CAFC might yet devise, but not including the now-discredited *State Street* test (“useful, concrete, and tangible result”) nor the now-discredited *In re Bilski* test (“machine or transformation” as the exclusive criteria) *In re Bilski*, 545 F.3d 943, 956 (Fed. Cir. 2008) *cert. granted* 129 S. Ct. 2735 (2009) *aff’d but criticized on other grounds* 130 S. Ct. 3218; and, at least by strong implication, inviting Congress to act).

263. Congress might just as freely decline to express its opinion on the existence of wind or water while enacting legislation about sailing across the waves. Perhaps a sort of conditional legislation might make sense.

264. Pub. L. No. 112-29, 125 Stat. 284, 331-33 § 19 (2011). See *Matal* (Part II of II), *supra* note 230, at 539-41, 590-93 (commenting on the background of these changes).

265. Pub. L. No. 112-29, 125 Stat. 284, 333-35 § 20 (2011) (adding subparagraph designations to section 116), 20(b) (adding subparagraph designations to section 184), 20(d) (adding subparagraph designations to section 251), section 20(e) (adding subparagraph designations to section 253), and 20(f) (adding subparagraph designations to section 256), and 20(g) (adding subparagraph designations to section 282). While not as dramatic as adding the subparagraph

subparagraph designations (a) through (c) (or the like) within the previously undesignated paragraphs of current sections 116, 184, 251, 253, 256, and 282. This section 20 of the AIA also removes some references to “deceptive intent” thereby facilitating certain corrections of errors in the naming of inventors regardless of intent at the time of error.²⁶⁶ These are actually quite significant, especially in the context of the new derivation proceedings, in many of which we might expect to discover that the originally named applicant-inventor (the one who derived from another) must have either omitted the original inventor or named a false inventor precisely with deceptive intent, at least in hindsight and often deliberately. Thus, rather than woodenly invalidating the patent, the provisions of the amended Patent Act will far more explicitly lead to the sensible result of reforming inventorship, with the practical effect of “assigning” rights of ownership in a still-valid patent to a person who should have been named an inventor in the first place.

Many of these ten sections are worthy of detailed examination, discussion, and commentary. I have a different purpose, however. I list these so that a non-insider, non-patent lawyer will at least have an idea of the scope and breadth of the AIA. Because the Act seems a mere aggregation of elements, I have simply divided it into groups of ten on the basis of a decimal system, rather than attempting any logical taxonomy.

3. *Sections 21-30. Here is the next set:*

21. *Travel expenses and payment of administrative judges.*²⁶⁷ Indeed.

22. *Patent and Trademark Office funding.*²⁶⁸ This is apparently a matter of some contention. Perhaps if the Patent Office more nearly controlled its own budget by appropriating to itself some or all of the patent-related fees charged to users, it might so manage its affairs as better to allocate resources among its competing needs: to hire or

numbers to section 112, *see supra* text at note 241, these are still mighty significant improvements, coming only 59 years after the Patent Act.

266. Pub. L. No. 112-29, 125 Stat. 284, at 50 (2011) (amending section 116, permitting correction of omitted inventors regardless of intent at the time of the error), AIA section 20(f) (amending section 256, permitting correction of named inventor regardless of intent at the time of the error).

267. Pub. L. No. 112-29, 125 Stat. 284, 335-36 § 21 (2011).

268. Pub. L. No. 112-29, 125 Stat. 284, 336 § 22 (2011).

promote examiners, to buy file cabinets or computers, or to do whatever seems good to it without Congress “raiding” patent office receipts or otherwise interfering or seeking to oversee the Office’s application of the Patent laws.

23. *Satellite offices.*²⁶⁹ Despite the plural form, and anticipation of as many as four of them, there is a provision for one satellite office in the next section.

24. *Designation of Detroit satellite office.*²⁷⁰ Here is something, at least potentially, for the good of the nation. The AIA names the to-be-built office after Elijah J. McCoy, inventor of, among other things, automatic lubricating devices so useful in “long distance locomotives, transatlantic ships, and factory machines” and having a reputation so strong that users, “wary of buying cheap substitutes” would often ask for “the real McCoy”.²⁷¹

25. *Priority examination for important technologies.*²⁷² Here is another version of the petition to make special for accelerated consideration, according to Congressional designation of importance.

26. *Study on implementation.*²⁷³ Perhaps the results of this study will trigger another round of reform.

27. *Study on genetic testing.*²⁷⁴ Why not?

28. *Patent Ombudsman Program for small business concerns.*²⁷⁵ Of course.

29. *Establishment of methods for studying the diversity of applicants.*²⁷⁶ These methods when established, and any resulting study, may provide data and might encourage increasing awareness of the importance of achieving diversity in the pursuit of careers in the fields of science, technology, engineering, and mathematics, if indeed a background in those fields is also correlated with applicants.

30. *Sense of Congress.*²⁷⁷ This is the third time in the AIA that Congress declares its sense. Here, the sense is that the patent system should:

269. Pub. L. No. 112-29, 125 Stat. 284, 336-37 §23 (2011).

270. Pub. L. No. 112-29, 125 Stat. 284, 337 § 24 (2011).

271. Inventors Hall of Fame, *supra* note 121 at 62 (describing McCoy’s invention).

272. Pub. L. No. 112-29, 125 Stat. 284, 337-38 § 25 (2011).

273. Pub. L. No. 112-29, 125 Stat. 284, 338 § 26 (2011).

274. Pub. L. No. 112-29, 125 Stat. 284, 338-39 § 27 (2011).

275. Pub. L. No. 112-29, 125 Stat. 284, 339 § 28 (2011).

276. Pub. L. No. 112-29, 125 Stat. 284, 339 § 29 (2011).

277. Pub. L. No. 112-29, 125 Stat. 284, 339 § 30 (2011).

[P]romote industries to continue to develop new technologies that spur growth and create jobs across the country which includes protecting the rights of small businesses and inventors from predatory behavior that could result in the cutting off of innovation.²⁷⁸

From the two senses previously expressed in AIA section 3,²⁷⁹ it might seem that Congress is seeking to buttress the Constitutionality of the AIA, or at least to establish its place in the context of international cooperation, perhaps almost sensing that someone might assert the constitution requires a first-to-invent regime.²⁸⁰ Here, Congress is expressing its wistful, if not poetic, sense that a patent system should, in a frenzy of verbs, promote, continue, develop, spur and create, a thicket of goods, industries, new technologies, economic growth, and job creation, not just localized but spread perhaps uniformly across the country, all the while protecting against predatory cutting off of innovation. Perhaps this is just another way of expressing what the Constitution already signifies more succinctly by progress in the useful arts. Or perhaps it signifies something more. It is interesting that the Constitution conditions the desire to promote progress in the useful arts on the presence of an invention or discovery,²⁸¹ but that the 112th Congress mentions “inventors” here almost as an after-thought to “new” technologies and only in connection with some sort of anti-predation protection, extended to small entities and inventors.

Perhaps this Congress is signaling that it believes the drafters of the Constitution should have dispensed with the requirement of invention in favor of a simple and direct grant of a right to exclude in favor of those who can provide for technological exploitation, economic growth, and job creation—the things that this Congress believes a patent system should promote. Perhaps Congress is intentionally expressing its views that the patent system should be nudged in that direction more forcefully and intentionally than presently understood.²⁸²

Then again, maybe Congress is simply engaged in repeating banal truisms, and is offering the conventional view, all the while assuming

278. *Id.*

279. Pub. L. No. 112-29, 125 Stat. 284, at 2-10 (2011).

280. *See supra* text at notes 105-113.

281. *See supra* notes 8-10.

282. A hypothetical counter-text to the existing Constitutional language might read: [Congress shall have the power] To promote the Progress of new technologies, growth, and job creation, by securing for limited Times to Authors and Job Creators or Other Persons who would not otherwise have engaged in innovation, commercialization, research, and development, the exclusive Right to their respective Writings and Economic Growth-enhancing ideas, methods, systems, or other devices.”

without any need expressly to predicate the antecedent, that *if* there were a number of true inventions and discoveries protected for limited times by correspondingly legitimate patents, *then* technological expansion, economic growth, and job creation would naturally follow; and this is what a patent system ought to do. It is unlikely Congress intends to veer in the opposite direction and would so lightly manifest a desire to upset the patent system by turning it into an award for job creation, *per se*. Perhaps, years from now when some court seeks to discern the intent of Congress, it will remember that this is a time when members of Congress think it expedient to tie pretty nearly everything that anybody does or doesn't do to the creation, preservation, or improvisation of jobs, and will discount this as insignificant speech embellished with a rhetorical and polemical flourish. Rather than signaling any revolutionary departure, it is much more likely that Congress is simply reiterating the anticipated indirect benefit to the commonweal of awards for inventions. In doing so, it should be clear that Congress, though casting these indirect benefits as if they were operatively significant, is merely speaking in the jargon of the moment, according to a fashionable but largely meaningless topical style, and not deliberately establishing any new principle of interpretation.

Many of these ten sections are worthy of detailed examination, discussion, and commentary. I have a different purpose, however. I list these so that a non-insider, non-patent lawyer will at least have an idea of the scope and breadth of the AIA. Because the Act seems a mere aggregation of elements, I have simply divided it into groups of ten on the basis of a decimal system, rather than attempting any logical taxonomy.

4. *Sections 31-37. Here is the final set:*

31. *USPTO study on international patent protections for small businesses.*²⁸³ Why have we waited so long?

32. *Pro bono program.*²⁸⁴ Law schools, bar associations, and other organizations now have an express encouragement to help the needy inventor. This assumes these institutions have installed robust docketing systems, acquired access to extensive libraries or virtual repositories, enlisted registered patent agents or attorneys and established ties with the supporting system of prior art search firms and foreign attorneys, or

283. Pub. L. No. 112-29, 125 Stat. 284, 339-40 § 31 (2011).

284. Pub. L. No. 112-29, 125 Stat. 284, 340 § 32 (2011).

that they are merely giving some sort of drive-by counseling and directing the needy to competent professionals who do have docketing systems, and also the other resources to take care of a needy inventor's concerns at a level of sophistication likely both to do some good and also to avoid malpractice. Perhaps if law school were in danger of becoming too affordable, or if there were a need to stimulate an economic recovery by spurring additional spending and hiring, this opportunity to build patent law clinics within law schools or other organizations might help some set of presently under-served inventors.²⁸⁵ Apparently there are either not enough commercial law firms or else law professors or bar associations collectively, have some as-yet unnoticed competitive advantage when it comes to practicing law. If so, then why not unleash this potential force, and why not do so in some simple area like patent law, rather than, say, such complex fields as [fill in the blank]?

33. *Limitation on the issuance of patents.*²⁸⁶ Would that it were so, in a broad and general sense. In fact, this is only a prohibition against patenting human beings, at least if they are denominated "human organisms."

34. *Study of patent litigation.*²⁸⁷ Perhaps patent litigation is unpredictable, costly, and time consuming compared to "ordinary" litigation of comparable scope and stakes; or perhaps not.²⁸⁸ Maybe this study will provide the answers, and perhaps spur some further reforms.

35. *Effective date.*²⁸⁹ The Act sets several effective dates. Here are some of them.

36. *Budgetary effects.*²⁹⁰ The Act contains some hunches about its economic impact.

37. *Calculation of 60-day period for application of patent term extension.*²⁹¹ Well, now. Really? The less said, the better.

285. It would be no less sensible to open up not only intellectual property clinics, but also corporate finance and venture capital clinics in our law schools. Perhaps Congress will encourage those when next it amends the federal securities laws.

286. Pub. L. No. 112-29, 125 Stat. 284, 340 § 33 (2011) provides that no patent may issue on a claim directed to or encompassing a human organism.

287. Pub. L. No. 112-29, 125 Stat. 284, 340 § 34 (2011).

288. Colleen Chien, *Predicting Patent Litigation*, 90 TEX. L. REV. 283 (2011).

289. Pub. L. No. 112-29, 125 Stat. 284, 341 § 35 (2011).

290. Pub. L. No. 112-29, 125 Stat. 284, 341 § 36 (2011).

291. Pub. L. No. 112-29, 125 Stat. 284, 341 § 37 (2011). See Matal (Part II of II), *supra* note 230 at 647-53 (reporting that the value of this provision to one company in particular, or to its law firm(s) or the law firms' insurers was said to be "approximately one and a half billion dollars" and that "nearly \$20 million was spent on the lobbying campaign to enact" section 37, and including additional details).

Many of these last sections are worthy of detailed examination, discussion, and commentary. I have a different purpose, however. I list these so that a non-insider, non-patent lawyer will at least have an idea of the scope and breadth of the AIA. Because the Act seems a mere aggregation of elements, I have simply divided it into groups of ten on the basis of a decimal system, rather than attempting any logical taxonomy. Because there are less than ten in this grouping, I stop.

After having counted up all 37 of the provisions, it is clear that there are plenty of targets of opportunity for discussion within the AIA. It is equally clear that there has been some very significant skill in drafting, and a not insignificant dedication of talent, time effort, and lobbying expense.²⁹² As I said at the outset, it would be churlish to reject so significant a gift outright,²⁹³ and so I have devoted space to giving recognition to the AIA, acknowledging its significant and numerous changes. I will also spend at least a little while (in the body of the Article to which this Appendix is attached) on two of the new provisions before moving on to the question I have reserved. The two provisions are the first-inventor-to-file and the derivation proceedings. The question I've reserved (for the balance of the body of the Article, and for Appendix B) is: what, exactly, is it that makes a "bad patent", and what might be done to reform patent law to address the "bad patent"? But, at least *en passant*, I certainly do want to recognize one clear advantage of the AIA. After some fifty-nine years, we finally have subparagraph designations in Section 112 and in other sections presently without subparagraph designators.²⁹⁴ One would hope that future Congresses will never take that away from the patent bar.²⁹⁵

292. FIRST STREET RESEARCH, LOBBYING THE AMERICA INVENTS ACT (2011), <http://firststreetresearch.files.wordpress.com/2011/11/first-street-report-lobbying-the-america-invents-act.pdf>.

293. See *supra* notes 116 & 117 and accompanying text.

294. See Pub. L. No. 112-29, 125 Stat. 284, at 10-14, 48-50 (2011). Almost every significant section of the Patent Act now includes subparagraph designations, a remarkable improvement.

295. See Joss Whedon, *Firefly-Main Title*, on FIREFLY (Twentieth Century Fox Film Corp. 2005) (asserting there are at least some things "they" can't take away: ". . . Take me out to the black, Tell them I ain't comin' back, Burn the land and boil the sea, You can't take the sky from me . . ."). Subparagraph numbers in section 112 might seem to be a small thing in comparison to the sky, but then again, the patentees have always been easily amused.

APPENDIX B: PRECOGNITION AND A QUASI-RESTATEMENT

Here is a rough cut, preliminary outline of a quasi-restatement. I provide it only to indicate that such an undertaking is possible, and not to assert that this is anything more than an invitation to others to surpass and replace it. I have organized it in 13 topics:

- One. Nature, purposes and foundations.
- Two. Eligible subject matter.
- Three. Utility.
- Four. Novelty.
- Five. Obviousness or other criteria beyond novelty.
- Six. Specification and claims; interpretation and standard of review.
- Seven. Patent infringement; primary and secondary liability.
- Eight. Liability in the absence of patent infringement.
- Nine. Term and termination.
- Ten. Remedies and patent strength.
- Eleven. Agency expertise and presumptions.
- Twelve. Implementation.
- Thirteen. Omissions and credit.

Many of these topics are only sketched in outline. There is much that I have omitted. But after the “reform” of the AIA, and after all of the volumes of studies, more studies, and yet more studies, perhaps it is time for a group to collaborate in the writing of an actual, concrete, comprehensive proposal that constitutes real patent reform. Here is a start. Topic One may be reduced, or moved, and the real action begins in the succeeding topics.

1. Topic One. Nature, Purposes, and Foundations; Definitions

101. General Rule. The primary purpose of patent law is to promote the progress of the useful arts by providing for a limited time to inventors and their assigns the exclusive rights to their inventions and discoveries (or by providing such lesser rights as may be appropriate in the public interest).

(a) Progress in the useful arts is promoted by patents that provide an economic incentive to encourage (1) invention; (2) public disclosure of the invention; or (3) development, commercialization, marketing, and promotion of the invention.

(b) Progress in the useful arts is not promoted by patents that unnecessarily discourage additional innovation, development, and commercialization of new technologies. Accordingly, progress in the useful arts is promoted both by certainty in the system of patent law, and

also by maintaining a public domain that preserves basic building blocks necessary for further development of intangible products of the mind, free of proprietary claims.

102. Other Secondary Purposes. Other secondary purposes of patent law include promotion and development of industries and technologies to spur economic growth, to create jobs, or to introduce curious devices or methods affording amusement or entertainment value to the public. These other purposes may be incidental or complementary to the primary purpose set forth in section 101, and might support publicly beneficial economic investments that would be unlikely to occur in the absence of patents. These other purposes should be accomplished subject to the balancing of concerns set forth in sections 101(a) and (b).

103. Promotion of Progress by Minimum Incentives. The balance between sections 101(a) and (b) is maintained by providing the minimum incentive to an inventor or an assignee of the inventor, selected from one or more of the following:

- (a) the right to exclude others;
- (b) a reasonable economic return, measured in whole or in part by damages,
- (c) a reasonable economic return, measured in whole or in part by a hypothetical royalty,
- (d) a reasonable economic return, measured in whole or in part by an infringing actor's profits,
- (e) a reputational return, achieved in whole or in part by a conspicuous attribution of origination to the inventor or an assign of the inventor, or
- (f) some other remedy calculated to provide an incentive to the inventor or an assign of the inventor, balanced against the public interest.

The minimum incentive is whichever is the least incentive reasonably necessary to promote both the actual invention, its disclosure, development and commercialization, and potential additional innovation by the inventor or others, balanced against the benefit in preserving a public domain in basic building blocks or raw materials for producing intangible products of the mind, free of proprietary claims.

Cross-References. This section is subject to, and is related to section 104 (concerning a unitary patent system, with variations) and to other provisions in this Restatement relating to eligible subject matter, specification and claims, term and termination, and remedies, all of which together are relevant in assessing the minimum incentives. The importance of the unitary approach is the reason these remedies are listed here, in section 103, and described in terms of the goals of the patent system; to promote the progress of the useful arts by providing incentives to inventors and their assigns without at the same time discouraging innovation by others.

104. A Unitary Patent System; With Variations.

(a) *Apparent Unity; An Intrinsic Failure.* We might well accept the goal of a unitary patent system. But the existing system, which apparently tries to accomplish that goal, actually creates hidden tensions that lead to unbearable flaws. Any restatement must recognize the fact that the existing system, though it may be nominally or conventionally described as unitary is in fact not unitary at all.

[to be developed: In fact, a non-trivial number of patents routinely issue on subject matter that is doubtful, on claims that are certainly obvious to a person having skill in the pertinent art, in respect of disclosures and claims that are inadequate, on interpretations that are flawed, and accompanied by remedies that do not make economic (or any other) sense. These comprise a non-trivial plurality of cases so large that they cannot be dismissed as accidental, but instead must be accounted for in any legitimate restatement. One reason for those defects is the law itself, which forces a unitarianism of result after the conclusion of patentability is reached. A more forthright and realistic appraisal would permit a unity in essential patent doctrine while expressly recognizing, permitting, and encouraging diversity in non-essential consequences including by way of limited remedies, fully explained.]

(b) *Permitted Diversity within a Unitary System; Variable Patent Strength.* It would be possible to unify the system from a reframed perspective. Because it is the case that some borderline subject matter is classified as patent-eligible; that some patent-eligible subject matter could be more candidly and realistically reclassified as merely novel but nonetheless valuable as patentable “discoveries” rather than as patentable “inventions”; that many weak disclosures and questionable interpretations can be identified as such; and that remedies need not include a prohibitory injunction or a monetary reward of any substantial

amount, then many of the existing conceptual tensions can be resolved. It might be recognized that existing “unitary” patent law already results in the issuance of patents of clearly variable strength, and it may be a feature of this Restatement more clearly to identify and to specify such variations in patent strength within a unitary system.

(c) *Simultaneous Adjustments in Remedies*. At the same time that the fact of issued patents of clearly variable strength is explicitly recognized as a routine feature of existing law, it becomes both possible and necessary to acknowledge, and to describe (or to prescribe) simultaneous adjustments in remedies that are already permitted or required by existing law. Because this Restatement emphasizes that current law, or at least the better reasoned results obtained under current law, already provides for such limited and flexible remedies as are the minimum incentive for innovations, there is a reasonable basis for providing substantially lower-impact remedies for lower-strength patents. Such adjustments would actually create a unitary patent system, but with explicit and explicitly articulated variations depending on the nature of the patent-eligible subject matter (among other specified variables).

105. Relationship to Other Rules.

(a) Patent law is an exception to the general right of free competition evidenced by the Restatement (Third) of Unfair Competition, Section One.

(b) Patent law coexists with federal copyright; federal and state trademark regulation; federal mark-related statutes that create proprietary rights in various source-signifying or non-source signifying expressions in the absence of likelihood of confusion; federal and state regulations that have the effect of creating some rights in industrial design, aesthetic works, or trade dress; various other regimes, including trade secret, commercial persona, and some sort of generalized misappropriation doctrine(s) of doubtful authority, including notions of wrongful plagiarism, impermissible taking, wrongful reaping without sowing, and improperly taking things that create a commercial impression or that produce a functionality substantially similar to some other product not otherwise protected by copyright, trademark, or patent.

(c) Progress in the useful arts is not promoted by granting patent rights that are deliberately and reasonably denied by one or more of those other regimes described in section 105(b), and which are not clearly or reasonably required by the patent law.

106. Definitions. As used in this Restatement, the following terms shall have the meanings set forth [to be developed]:

“Patentable invention” shall mean the invention or discovery that could be described by one or more claims in a valid and subsisting U.S. patent. The term includes subject matter that could be patented.

“Patented invention” shall mean an invention or discovery that is described by one or more claims in a valid and subsisting U.S. patent.

A patent (or a patented invention) constitutes personal property, but it is a personal property of a special kind, as described and subject to the limitations set forth in this Restatement.

2. *Topic Two. Eligible Subject Matter.*

201. General. Patents have been awarded to:

(a) subject matter within the industrial arts as described in section 202;

(b) subject matter included within four traditional statutory categories as described in section 203;

(c) coded constructs within the meaning contemplated by section 204;

(d) subject matter within the liberal arts, fine arts, and related arts as described in section 205(a);

(e) subject matter comprising “anything under the sun” created by humankind excepting only laws of nature, naturally occurring phenomena, or abstract ideas as described in section 205(b); and to

(f) various “new” discoveries comprising subject matter that is not entirely easy to categorize, as described in section 206.

All of these are subject to the exclusions described in section 207, intended to preserve to the public domain certain building blocks in aid of further innovation by others.

202. Industrial Arts.

(a) The “industrial arts” are defined, in part, by contrast with other arts. It seems the “useful arts” (the Constitutional term) clearly embraces “industrial arts” or “technological arts” (near-synonyms), all of which *are* patent-eligible by a direct reading of the language of the Constitution. This usage at the very least marks out a core domain that is clearly, traditionally, and without much controversy accepted as patent-eligible subject matter and which may be contrasted with the “liberal arts” and “fine arts” or “information-age” or other arts that might require a different analysis.

(b) Proponents of the “industrial arts” perspective argue that it both explains and is explained by the existing four statutory categories set forth in section 203 of this Restatement, and all of which have been part of the patent acts since 1793, and all of which have been (until recently) defined in terms of the industrial arts, and that it is no accident they have been so defined.

(c) The traditional four categories set forth in section 203 seem drawn to, most sensibly related to, and perhaps limited to the industrial arts. But these are not the exclusive definition of patentable subject matter. Other patent-eligible subject matter (see sections 204-206) may be outside either the industrial arts or the traditional four categories, but such subject matter has presented conceptual and practical difficulties in understanding the limits, if any, on eligible subject matter.

203. The Four Traditional Categories. The four traditional categories are machine, manufacture, composition of matter, and process (or “art”).

(a) *Machine.* A “machine” is a concrete thing, consisting of parts, or of certain devices and a combination of devices. This includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result.

(b) *Manufacture.* The process of manufacture (in its *verb* form) signifies the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery. A “manufacture” (as a noun, and as used in this section) signifies “articles” resulting from the process of manufacture. An “article” is a particular substance or commodity: as, for example, an article of merchandise or an article of clothing; artificially prepared salt is a necessary article. These definitions limit “articles” of “manufacture” to those that are tangible articles or commodities.

Examples of articles of manufacture are ceramics, cast metal articles, hammers, crowbars, chairs, shovels, gloves, shoes, envelopes, and mouse-pads. Articles of manufacture may have parts, but any interaction among the parts is usually static.

A natural article, even if subjected to a process, as when the rind of an orange is impregnated with borax to prevent decay, is not an article of manufacture. This is because the addition of borax to the rind of natural fruit does not produce from the raw material an article for use which possesses a new or distinctive form, quality, or property. The added substance only protects the natural article against deterioration by

inhibiting development of extraneous spores upon the rind. There is no change in the name, appearance, or general character of the fruit. It remains a fresh orange, fit only for the same beneficial uses as theretofore.

A signal is not an article of manufacture because intangible, incorporeal, transitory entities are not articles of manufacture

(c) *Composition of Matter*. A composition of matter is an article formed by the intermixture of two or more ingredients, and possessing properties which belong to none of these ingredients in their separate state. The intermixture of ingredients in a composition of matter may be produced by mechanical or chemical operations, and its result may be a compound substance resolvable into its constituent elements by mechanical processes, or a new substance which can be destroyed only by chemical analysis.

(d) *Process* (or art). A “process” or “art” is a mode of treatment (a step or a series of steps) undertaken with certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.

A series of steps is usually within the statutory definition if it either is tied to a particular apparatus (tied to a machine) or operates to change physical materials to a different physical state or thing (performs a transformation of a physical thing). This test for an eligible process is referred to as the “machine or transformation” test and it is not the exclusive test, but no one really knows what else is included because the Supreme Court has recently declined to offer its opinion and the question remains open after some 220 years.

Reporter’s Notes. The foregoing definitions are derived from a combination of sources, including *In re Nuijten*, 500 F.3d 1346 (Fed. Cir. 2007) (“machine” and “manufacture,” quoting several Supreme Court cases); Robinson on Patents (“composition of matter”); and a number of Supreme Court and CAFC cases (“process” or “art”).

204. [alternative] Coded Constructs.

(a) [*alt.*] *Code*. It would have been possible to assimilate code (both digital electronic, mechanical, or analog logic devices and code, and also genetic, biologic, and bio-chemical codes) into the existing four categories described in section 203. It would have been possible, for example, to understand that an electrical or electronic logic circuit is very like a machine, if a machine were defined to include something that transforms one or more input(s) into one or more output(s) according to

some objective operation(s) performed on the input(s). It would have been possible to understand that a programmable (codable) logic circuit may be transformed by software or other processes from one state (or one machine) into another state (another machine) and that the code constitutes a process that is intimately tied to the virtual machines it creates and also is transformative of those machines (and of the inputs to the virtual machines). So also, genetic coding could have been assimilated into the existing four categories. It is entirely possible that many of the cases that have given rise to at least some of the eligible subject matter determinations set forth in section 205 could be better explained by (and perhaps were actually motivated by the underlying concerns set forth in) the principles set forth in this section 204.

(b) [*alt.*] *Categories Transformed for the Coded World.* It would have been possible to transform the existing four categories described in section 203, thereby adapting them to new industrial technologies and industrial arts beyond the prior machine age without doing unnecessary violence to the structure of the patent system. The categories might be as follows:

- Virtual Machines.
- Virtual Manufactures.
- Virtual Compositions of Matter.
- Virtual Processes.

205. *Liberal and Fine Arts, Mental Steps, Physical Skills, Processes that are not tied to a machine and do not transform a material thing; and other "things under the sun made by humankind" subject to exclusions.*

There is no denying that the patent system has certainly granted patent eligibility to any number of things outside of those that are clearly within the definitions set forth in sections 202 and 203. Perhaps some of them could be explained along the lines suggested in section 204. And yet there is a residue that cannot easily be reconciled with, or explained by those rules.

This raises the question whether there is any limit whatsoever to patentable subject matter. On the one hand, it might be said that anything that produces a "useful, tangible, and concrete result" might be patent-eligible. But this proposal has recently been authoritatively rejected and disapproved.

On the other hand, it might be said that nothing which is merely a law of nature, a naturally occurring phenomena, or an abstract idea is patent-eligible. So also, there have been various "rules of thumb"

attempting to proscribe claims “too much” drawn to functionality, or to mental steps (whether of “doing business” or of doing anything else) or which “preempt” entire fields. This leaves the problem of determining what, if anything, is beyond the reach of patent-eligible subject matter.

[to be developed: this consideration can and should be explicitly recognized as part of the variation in strength of issued patents; a patent strength factor as recognized by section 104 of this Restatement.]

206. [*alternative*] *Discoveries*.

(a) [*alt*] *Discoveries*. The Constitution explicitly permits patents to issue on “discoveries.” If an “invention” is necessarily something “discovered” and if the only “discovery” contemplated by the Constitution is one that is “inventive” then the two Constitutional terms are synonyms and are strictly co-terminus. But if an invention connotes something more than mere novelty, and if nobody is entitled to a patent on “laws of nature or naturally occurring phenomena” then “discovery” might connote something between the two poles. A patentable “discovery” might, in fact, be satisfied by mere novelty—something originated by the author-inventor rather than “found” in nature, and yet not rising to the level of non-obvious invention. Many of the items described in section 205, perhaps not entirely coincidentally, could be classified as “discoveries” but not as inventions.

(b) [*alt*] *A Unitary Patent System; With Variations*. See section 104 of this Restatement. We might well accept the goal of a unitary patent system. But the existing system, which apparently tries to accomplish that goal, actually creates hidden tensions that lead to unbearable flaws. It would be possible to unify the system from a reframed perspective. Were it the case that some patent-eligible subject matter could be reclassified as merely novel; as patentable “discoveries” rather than as patentable “inventions” then many of the existing conceptual tensions might be resolved. At the same time, it would be necessary to make adjustments in remedies (as remedies are explicitly limited to provide the minimum incentive for innovations, there would likely be a reasonable basis for providing substantially lower remedies for patentable discoveries than for patentable inventions). Such adjustments would lead to a unitary patent system, but with explicit and explicitly articulated variations depending on the nature of the patent-eligible subject matter among other specified considerations that can lead to a patent strength score.

207. Excluded Building Blocks. Regardless of any formulation of eligible subject matter, it is never in the public interest and therefore never permissible for anyone to claim a patent on subject matter that would discourage the progress of others in making further innovations. Accordingly, no patent may validly issue that claims any:

Laws of Nature
 Abstract Ideas
 Naturally Occurring Phenomena
 [alternative] [Mental Operations]

3. *Topic Three. Utility; exclusions*

[to be developed]

4. *Topic Four. Novelty*

[to be developed]

5. *Topic Five. Obviousness or Other Criteria Beyond Novelty*

501. General Rule. In addition to novelty (and all other relevant requirements) a patentable invention must either be non-obvious, or else it must meet some other criteria beyond mere novelty.

502. Non-obviousness. An invention may be established as non-obvious by direct or indirect evidence. Other factors may negate a finding of non-obviousness.

(a) Direct Evidence of Non-obviousness.

[to be developed: the three-part standard of Section 103 of the Patent Act]

(b) Indirect Evidence of Non-obviousness; secondary factors, genius, and accident

[to be developed: genius counts as at least indirect evidence of non-obviousness since an act of genius would be considered yet more non-obvious than the act required by the three-part standard of Section 103 of the Patent Act; and so does accident since many inventions have, in fact, been more or less accidental. Genius and accident both might also be included as “direct” evidence of non-obviousness, subject to problems of direct proof.]

(c) Factors Tending to Negate a Finding of Non-obviousness

[to be developed, but including: (1) Combining references, and (2) Multiple independent, near-simultaneous invention.]

503. Other Criteria Beyond Novelty, Novel but Obvious (Novelty-Plus).

(a) *Patents on Obvious Subject Matter.* Notwithstanding repeated statements to the contrary, it is clear beyond any doubt that a non-negligible plurality of patents have issued on inventions that are by no stretch of the imagination non-obvious. That is to say, they are “obvious” under current formulations or they are not “inventive” under prior formulations. If the U.S. Constitution and the successive statutes since 1790 have routinely permitted such patents—and the common practice consistently followed as a matter of course since 1790 coupled with the textual evidence that the minimal Constitutional standard is “discovery” comprise strong evidence that such patents are permitted—then it becomes possible to contemplate the deliberate grant of a patent on something that is merely novel, or that has novelty plus some other criterion. The other criteria beyond mere novelty to distinguish those obvious innovations worthy of patent protection from others not worthy may include such factors as these:

[to be developed, but perhaps to include (1) “impact” in the case of certain “pioneer” or apparent break-through innovations, or the first substantial investment in the commercialization or promotion of such innovations, (2) “economic necessity” in the case of certain industries or technologies that are characterized by high risk, capital-intensive innovation with easy duplication of the innovative product or process, or even (3) “sympathy” or some sort of inarticulate preference for certain idiosyncratic contributions, perhaps aided by a notion that the sympathy-arousing contributions are essentially economically harmless but praiseworthy nonetheless.]

(b) *Limitations.* Those patents, if any, granted on obvious subject matter should be carefully limited by considerations of the balance of interests set forth in sections 101(a) and (b).

[to be developed: this consideration can and should be explicitly recognized as part of the variation in strength of issued patents; a patent strength factor as recognized by section 104 of this Restatement.]

504. Classification of Patents in respect of the degree of Invention or Discovery. Patents may be classified, with corresponding “strength of patent” factors, as follows:

Alt. A. Originator: one to whom the claimed discovery owes its origin; not copied from someone else, but perhaps copied or derived from nature, or a naturally occurring phenomena, or a law of nature; a subjective discovery. In an earlier day, it may have been permissible to

copy an invention outside the jurisdiction, as a means of importing technology. Any patent issued to an originator, if valid at all, may be referred to as a “patent of origination.”

Alt. B. Author: an originator with a further characteristic, viz.: one who has also contributed a modicum of creativity or ingenuity; some personal, individual intelligence; not simply copying straight from nature, naturally occurring phenomena, or laws of nature (or from basic building blocks) already in the public domain; a subjective discovery coupled with a certain amount of creativity. Any patent issued to an author, if valid at all, may be referred to as a “patent of authorship.”

Alt. C. Novelty Discovery: an author with a further characteristic, viz.: one whose claimed discovery is absolutely novel: new, not anticipated; an objective discovery. Any patent issued to a novelty-discoverer, if valid at all, may be referred to as a “novelty patent.”

Alt. D. Novelty-Plus: a novelty discovery but with “something” more. The “plus” factor might be immediate commercial success, it might be a socially desirable but costly solution that would not have been undertaken without the promise of a patent-enhanced return on investment; or it might be “jobs” created as a result of some “new” technology. Any patent issued to a novelty-plus discoverer, if valid at all, may be referred to as a “novelty-plus” patent.

Alt. E. “Inventive” or Nonobvious Subject Matter: a novelty or novelty-plus discovery with a further characteristic, viz.: one whose claimed subject matter is, for lack of a better word, “inventive” as the result of genius or luck; or it might suffice if it is simply not obvious to a person having ordinary skill in the art to which it pertains; a non-obvious invention. Such a patent may be referred to as a “Non-obvious” patent.

[to be developed: these considerations can and should be explicitly recognized as part of the variation in strength of issued patents; a patent strength factor. The burden of proof might be varied: the PTO might have the burden to show anticipation/lack of novelty; the applicant might have the burden to show novelty-plus, or non-obviousness.]

6. *Topic Six. Specification and Claims; Interpretation and Standard of Review; Priority of Patent Grants According to Filing Date or Other Criteria.*

601. *Centrality of Specification, Claims, and Claim Interpretation.*

[to be developed]

602. *Sources and Methods of Interpretation.*

[to be developed: extrinsic and intrinsic sources.]

603. *An Applicant's Cooperation in Specifying Sources and Methods of Interpretation (incentives to encourage applicants expressly to elect a potentially narrowing interpretation).*

[to be developed: this consideration can and should be explicitly recognized as part of the variation in strength of issued patents; a patent strength factor.]

604. *Minimum Requirements of Specification and Claims (and incentives to encourage applicants to provide additional clarity at the potential expense of claim breadth).*

[to be developed]

605. *Standard of Review.* The patent is a *sui generis* instrument, and its interpretation is a *sui generis* problem. It is not entirely like a contract or a will in which the meaning of one or more of the parties (or both of them) is determinative. Nor is it entirely like a statute. Instead, patents often involve technical terms, some of them indeterminate, and the same patent might be contested in different federal district courts but with an appeal to a single federal court of appeal.

[to be developed: the question of interpretation will necessarily involve questions of fact, but there is nothing to say that all fact determinations must receive the same level of deference at the appellate level. If one objective of a patent system is to produce uniformity of interpretation of the same patent, then even if we realistically recognize that interpretation involves a question of fact, we might still provide for a greater level of appellate review, and less deference to the fact-finder than would ordinarily apply—this would involve an express acknowledgment of the actual state of patent practice and litigation and would permit a more candid resolution of the problem]

[to be developed: these considerations can and should be explicitly recognized as part of the variation in strength of issued patents; a patent strength factor.]

606. *Priority of Patent Grant.*

[to be developed: first-to-invent; or first-to-file; or first-inventor-to-file; or first-inventor-to-disclose; and each with or without a grace period or a defense for prior invention—a restatement might describe the prior regime in the United States, describe the current regime, and provide alternative provisions should Congress desire to change its mind, or should the international patent system ever itself be in need of reform or harmonization going in some direction other than the current system.]

[if there is any U.S. Constitutional dimension to any of these systems, a restatement might identify the relevant issues, and might do so in light of the goal of incentives to invent, to disclose the invention, and to commercialize the invention. It might be demonstrated that the “first to disclose” hybrid system of the AIA, if tied to an event that makes the invention “otherwise available to the public” and so is an event that both enables the invention and would serve to bar the inventor after the passing of the grace period, might well accomplish the goal of prompt disclosure while providing a measure of certainty to persons considering whether it is reasonably safe to invest in commercialization of inventions that seem to have the earliest filing date in light of publicly available information.]

7. *Topic Seven. Patent Infringement; Primary and Secondary Liability*

701. *General Rule for Primary Liability.* An actor is liable for patent infringement if a valid claim of another’s patent reads on a product or process of the actor which is sold, offered for sale, manufactured, or imported into the United States, absent consent, privilege or other defense.

702. *Primary Liability; Definition of Terms.* Terms Used in Section 701 [to be developed].

- (a) A “valid claim” signifies....
- (b) “Reading” a claim on an allegedly infringing product or process signifies...
- (c) A product or process “sold, offered for sale, manufactured, or imported” into the United States signifies...
- (d) “Consent, privileges, and defenses” include....

703. *General Rule for Secondary Liability.* An actor not otherwise liable for patent infringement under the rules for primary liability may be held secondarily liable for the patent infringement of another if (a) the other is primarily liable for patent infringement, or (b) the second actor and the other would together have been primarily liable for patent infringement were they acting in concert and each has knowledge or reason to know of the conduct of the other, and (c) in each of the cases (a) and (b) there are circumstances in which it would be “just” to hold the second actor liable.

704. *Secondary Liability; Definition of Terms.* Subject to section 705, it is “just” to hold the second actor liable for the patent

infringement of another on any one or more of the following bases [to be developed]:

- (a) fault—contributory infringement...
- (b) fault—inducing infringement...
- (c) status—genuine agency relationships...
- (d) status—relationships similar to the agency relationships based on something like knowledge, a right or ability to control, and a direct financial benefit...
- (e) consent—actual or imputed suretyship, indemnity, or similar relationships... (comparative standards, rights and defenses, in the case of actual consent as a boundary to judicially or legislatively created secondary liability)
- (f) policy—liability in the absence of any of the grounds in sections (a) through (e), but in the presence of some defined, specified policy (“hostage style” secondary liability)...

705. Defenses to Secondary Liability.

[to be developed; including those instances in which “knowledge” is required before secondary liability can attach; and those instances in which a substantial non-infringing use (staple item of commerce) either negates the imputation of knowledge or else serves as an absolute privilege or defense.]

[Likewise, the degree of patent strength should shelter the person alleged to be liable for secondary infringement just as it would be a factor in assessing direct or primary infringement.]

8. Topic Eight. Liability in the Absence of Patent Infringement.

801. General Rule. Except as set forth in section 802 below, an actor who has not infringed any claim of another’s patent is not liable for patent infringement.

Reporter’s Note. Present law contains strong authority for assessing liability according to the judicially created doctrine of equivalents notwithstanding that no properly interpreted claim of the patent at issue “literally” reads on the infringing product or process. Rather than continue to refer to these as cases of “non-literal” patent infringement, it may be more realistic and more candid to call them what they are: cases in which there is liability in the absence of patent infringement. By doing so, it may become more nearly possible to identify the permissible reason(s), if any, for finding liability in such cases.

802. Exception. Subject to the limitations set forth in section 803, an actor who has not infringed any claim of another's patent may nonetheless be liable to the other in the absence of infringement if the actor's product or process is substantially similar to a product or process described in any claim of the other, and if any one or more of the following conditions apply:

(1) *Function-way-result.* The actor's otherwise non-infringing product or process (i) produces the same result as some product or process, actual or hypothetical, which is or might have been described by a claim of the other's patent, and (ii) the substantial similarity is in both the "function" and the "way" of the actor's product or process.

(2) *Trivial variation.* In light of the other's specification and claims, and the relevant prior art, either as of the time the other's patent application was filed or as of the time of the actor's conduct in respect of the actor's otherwise non-infringing product or process, the actor's product or process is (i) a trivial or insubstantial variation compared to the claimed invention, or (ii) would have been obvious to a person having skill in the art.

(3) *Misconduct in the nature of quasi-piracy.* The actor's otherwise non-infringing product or process was derived by impermissible misconduct that constitutes some sort of unfair competition under circumstances that are or seem to be "unjust" or "pirate-like" and that involve "copying" the unprotected features of the other's unclaimed "invention"; a sort of federal common law of anti-plagiarism in the vicinity of a patent (perhaps on a showing of access plus substantial similarity, which given the constructive notice upon publication of the other's patent application or issuance of the patent, and given the threshold requirement of substantial similarity, would be a tautology).

(4) *Misconduct in the nature of quasi-fraud or passing-off.* The other's patent, or the products or processes produced or authorized by the other (i) have an acquired distinctiveness in a relevant market, and (ii) the actor's otherwise non-infringing product or process either (a) causes a likelihood of confusion as to source, sponsorship, or affiliation on the part of an appreciable number of reasonable consumers of the respective products or processes, or (b) otherwise constitutes "passing off" by way of a "fraud" or quasi-fraud or misrepresentation "on the patent" or to the consuming public, or to someone or something else.

(5) *Ownership outside of the patent claims based on sweat of the brow or upon incipient natural rights factors.* An actor may be found liable in the absence of patent infringement if (i) the other's patent, or the products or process produced or authorized by the other are

deserving of some natural right, earned by the sweat of the other's brow, or by the other's having sown some intangible seed and then having tended the growing crop, or otherwise earning some moral, economic, cultural, or institutional "right" outside of patent law and (ii) the actor has misappropriated, in connection with its otherwise non-infringing product or process, the fruits of the other's labor by reaping where the actor had not sown.

(6) *Clear errors, fixed by judicial intervention.* There is (i) an excusable and clear error in one or more of the other's claims, including without limitation, typographical mistakes, errors in the mechanics or logic of claim drafting, or the omission of broadening words that clearly could have been included, such as "about" or "nearly" or "approximately" and (ii) there is some reason for excusing the other's error in claim drafting or in failing to seek reissue, or for excusing some court's error in not having interpreted the claim broadly enough in the first place.

(7) *Genuine equity.* There is some genuinely "equitable" reason to hold the actor liable in the absence of patent infringement.

(8) *Other factors.* The other's conduct constitutes an act of unfair competition under rules set forth in the Restatement (Third) of Unfair Competition, another federal statute, or another state statute or common law principle not preempted by federal law.

The foregoing factors are illustrative only and, except as set forth in section 803 below, nothing in this section 802 is intended to limit any court in creating out of whole cloth any system of patent-like common law that establishes liability in an actor who has not infringed any claims of another's patent. Proof of actual "copying" by the actor is not essential to the other's case; and proof of "independent invention" by the actor, or of the actor's deliberately attempting legitimately to "design around" the other's claimed invention may sometimes, but not always be entitled to some weight, and is no absolute defense to the actor in any event.

803. Situations in Which the Exception Does not Apply. Notwithstanding the exceptions authorized in section 802 above, an actor who has not infringed any claim of another's patent will *not* be liable to the other in the absence of infringement, if any of the following conditions apply:

(1) *Forfeiture.* The other has forfeited the "right" to assert liability in the absence of infringement by having (i) deliberately but foolishly

amended a claim during prosecution, thereby (ii) relinquishing some measure of coverage of a non-infringing product or process that could have obtained under section 802 had the amendment not occurred.

(2) *Inconsistency*. Some court notices that some or all of the factors, or the underlying rationales for one or more of the factors set forth in 802 (1)-(8):

(i) have been expressly rejected, or have been disapproved in clear and repeated dicta uttered by the United States Supreme Court, or by the Court of Appeals for the Federal Circuit in other relevant contexts;

(ii) are rather obviously inconsistent with the United States Constitution, which does not authorize Congress to create patent-like rights in the absence of a patent; or are inconsistent with the nature and purpose of a patent system based on peripheral claiming;

(iii) constitute a strange and unwarranted extension of the generalized, and generally criticized, misappropriation doctrine sometimes associated with unfair competition in “hot news” items; or constitute an unreasonable analog to the doctrine of non-literal copyright infringement; or

(iv) otherwise have no coherent reason, or make no sense.

9. *Topic Nine. Term and Termination*

[to be developed: twenty years from filing, but with express permission to consider “effective” terms much shorter than 20 years when it comes time to fashioning a remedy with consideration of the strength of the patent at issue.]

10. *Topic Ten. Remedies and Patent Strength*

1001. *Patent Remedies*

[to be developed: see the list set forth in section 103: and with express consideration of the strength of the patent at issue, all in light of the rationale of *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006): Q: When exactly is the public interest not served by the issuance of an injunction in respect of a valid patent that has been infringed? Ans: When the patent is low on the scale of patent strength, and therefore is of dubious quality and its enforcement is doubtfully in the public interest.]

1002. *The Scale of Patent Strength*

[to be developed: almost every Topic in this Restatement would permit a scale, perhaps an A (high) to F (low) ranking. Accordingly, a patent claim that is, as set forth in Topic Two, of high core strength on

the scale of subject matter eligibility might rate a 2A. A patent claim of high core strength on the scale of non-obviousness, as set forth in Topic Five, might rate as a 5A (or A+ if it rose even higher, to the level of “genius”). A high score on the scale of disclosure and patentee-volunteered glossaries of terms, as contemplated by Topic Six would score at 6A, and a high score on clear infringement by a clean reading of a claim upon an allegedly infringing product or process, as contemplated by Topic Seven might rate a 7A. And conversely, claims might be rated down on any of the various scales.]

[Given that the Supreme Court has invited, and the existing law already allows, flexible remedies reasonably calculated to further the goals of the patent system, a restatement might properly report on the rather straightforward ways this might be achieved. A federal trial on patent infringement is already a rather bulky, time-consuming, and ultimately precarious undertaking (either absolutely or relative to the rates of reversal on appeal). It is not unlikely that the simple expedient of grading patents on these scales of patent strength is already implicit in the current adjudications, and if explicitly assessed by the fact-finder after having been more directly addressed by the litigants, might be a more efficient way of redirecting the time and energy already committed to the undertaking.]

11. Topic Eleven. Agency Expertise, Presumptions, Standard of Review

1101. Agency Law and Administrative Law Presumptions and Practices.

[to be developed: The Agency law/Administrative law presumptions accorded to, and the practices, including rule-making, exemplified by such agencies as, for example, the Securities and Exchange Commission, do not seem to obtain at the Patent and Trademark Office. Perhaps that is because the conditions that would justify those presumptions do not presently obtain at the PTO.]

1102. Standard of Review.

[to be developed: There appears to be no rational basis for affording a presumption of validity to fact determinations never made by any examiner at the Patent Office. There may be some basis for affording a presumption to uncontested (ex parte) rulings actually made within the Patent Office, but it is not entirely clear that the patent examining corps is actually comprised of persons having ordinary skill in the art, and it may be that their only skill consists in reading texts, performing a number of fairly mechanical operations on the texts, and then finally

making a rudimentary comparison between them to see if an examiner concludes there is something that would not have been obvious to a person having ordinary skill in the art, without any real basis for coming to that conclusion. It is not entirely clear why, other than in the interest of conserving time, which is a laudable objective, there is any reason to defer to many of the determinations made within the Patent Office. A restatement would simply describe the current state of the law in such a way as to make more apparent the benefits and costs of the current set of presumptions.]

If the standard of review were adjusted in light of the strength of a patent, including a scale for patentee disclosure of the prior art, including a selection of prior art more nearly likely to set the floor for a rational application of the statutory three-part test, then a patentee who voluntarily discloses prior art to the patent office might be rationally afforded a presumption of some sort, or a higher score on the appropriate scale; but a patentee who does not disclose ought not to be afforded the same presumption. Like a disclosure statement in the context of a registered offering of securities, the built-in incentive may do far more to encourage disclosure than any amount of admonition; and for clear violations of the duty of candor, sanctions may still be applied.

1103. Inter Partes Proceedings in relation to presumptions.

[to be developed: If one of the advantages to the objecting party of such pre- or post-allowance inter partes proceedings within the Patent Office is simply that the patent has not yet issued or has been surrendered (and so is unaccompanied by any presumption of validity), then the expanded inter partes proceedings may result in “better” patents, and such patents might be among those entitled to higher strength of patent scores and correspondingly higher presumptions of validity. To incentivize such proceedings, it would make sense to award such presumptions only to patents that issue after such proceedings. On the other hand, if judicial determinations may be scaled so that judicial remedies may be reasonably set in relation to the strength of the patent, and if adjudication of patent strength might be more efficiently done in federal court litigation than before the Patent Office, then a restatement might describe the current state of the law in such a way as to concentrate the discussion.]

12. *Topic Twelve. Implementation.*

1201. *Statutory Reform.*

[to be developed: a restatement, perhaps including provisions drafted in the alternative, could be repurposed as legislation, ready for debate and enactment into law. It could also serve as a target for successive “reform” acts, according to a comprehensive plan.]

1202. *Administrative Rule-Making.*

[to be developed: if there were an administrative agency competent and authorized to do so, as by a patent statute that set forth broad and universal standards, with guidance as to specified rules, then an agency might properly implement patent law policy. A patent statute might, by analogy to the SEC statutes, authorize some patent agency to prescribe such forms (perhaps a form P-1 for an applicant who seeks a high-scale patent strength index; a form P-2 for an applicant who seeks a lower-scale strength index; and a form P-3 for an applicant who seeks only a minimal novelty determination and minimal review of other formal requirements. Such a regime might involve a different level of administrative review, different presumptions (or no presumptions) of validity, and might be accompanied by some supplement to the current MPEP, containing specific disclosure items required for any of the patent forms, rather like the SEC’s regulation S-K.]

1203. *Judicial Determinations.*

[to be developed: all of the authority to implement a restatement-like patent reform, if accomplished by means of the remedy—the requirement to provide injunctions only when in the public interest (and only when all of the other equitable factors are present), and the requirement to provide reasonable monetary recoveries, not less than a reasonable royalty—already exists. The restatement project, if it should be undertaken and completed, will provide the comprehensive structure by which deliberate judicial development of the law might take place without jeopardizing the patent system with piecemeal or unconnected innovations.]

13. *Omissions and Credit.*

I offer this preliminary outline of a quasi-restatement of patent law for the primary purpose of illustrating both the process I have recommended in my article, and the interesting results that can be readily seen from one perhaps poor example (mine, as concretely

imagined here). I am painfully aware of many omissions, and of the improvements to structure, organization, sequence, order and arrangement of topics that could be added, were this project to catch on and were there to be gathered a team more numerous, and with more time and talent than I possess. Finally, I am very aware of the massive amount of work that has already been published or otherwise presented by men and women and organizations far more capable than I. My oft-repeated, and I trust not entirely futile general credit already expressed in the accompanying article is this: I can imagine that there is no conceivable thought about patent law that has not already been thought, and nothing possible of being written that has not already been written. I claim no originality whatsoever, except perhaps in some measure in my selection, order, and arrangement of the work already done by others. The purpose of my little article, and of this outline of a restatement, is simply to urge that the time to talk and to write may well be over, and it may be time to act. The careful reader will see the derivation of sources, and the busy reader might be grateful that I have not burdened this little paper (already overly long, and almost a year delayed) with yet further scholarly apparatus. Exhaustive references may be found, among other places, in the "meticulous documentation" provided by the Congress and referenced in the legislative history of the AIA. Within the Federal Trade Commission and National Academy reports are citations to scores, if not hundreds, of articles, commentators, and comments to support the half dozen or more problems, concerns, and flaws identified at great length in the reports themselves, and to justify the many general and particular recommendations contained in them. Likewise in the many hearings, and in the half-dozen articles (and the book), referenced in the legislative history. My purpose is both somewhat different and much more modest. As a person of small stature, all I claim is to be sitting on the shoulders of giants who have gone before me, attempting to see what I might see from such a perch.

“Are these [continuing bad patents under the AIA] the shadows of the things that Will be, or are they shadows of things that May be, only?”



John Leech, *The Second of the Three Spirits* (1843) (public domain)

Picture Credit: the Victorian Web, scanned image by Philip V. Allingham, Full-page illustration for Charles Dickens, *Christmas Carol*, available at <http://www.victorianweb.org/art/illustration/carol/5.html>

The notion of a comprehensive code as a guide to the perplexed and as a way out of the current impasse and towards real patent reform is a

recurring motif of this Article. The question “are these the shadows of things that will be, or are they shadows of things that may be, only” fairly applies to the present, and to the possible futures of patent law. (I am aware that the quote I’ve attributed to the Scrooge’s second spirit more properly lines up with the third spirit, but the copy of the picture for that spirit is muddied and hard to see—I have taken some artistic license, and perhaps the reader will excuse me for doing so).