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SMOKE AND MIRRORS: AMERICA INVENTS ACT 2011: A CHILL IN THE AIR*

Robert I. Reis**

There are things that are and things that will be that only the future will show. The America Invents Act proffers a set of benefits, the effects of which only time will tell. America Invents is premised on being a catalyst for innovation, invention, jobs, secure intellectual property rights, a safe and attractive harbor for investment, and reshaping of the patent rights to comply with international treaty requirements for protection. In the process, the inventor to receive patent protection is the first inventor to file. Whether this will be deemed lawful, despite the change of 200 years of practice, is likely, not doubtful. Whether this will be without a period of uncertainty is certain. What is not clear, but clearly in doubt, is whether it will, in fact, foster innovation and invention and whether the level of innovation and invention will be diminished in quality and competitive value. This article peers into the looking glass to the future and notes some of the issues and concerns that will dot the landscape of the Act for a decade to come. The first section addresses the promise of the Act and sets forth in some detail the concerns of those in the field. The second section, called “Bights, Bits, and Nibbles,” plays upon two seemingly innocuous changes: the backlog in the United States Patent and Trademark Office and the removal of best mode as a defense to an infringement action. The first fails to analyze the reason for the backup in the first place and the second may “throw the baby out with the bath water” by denigrating disclosures at the heart of the patent purpose. The third section of “Bights, Bits, and Nibbles” looks at the expansion of jurisdiction and the quasi-judicial role assumed by the PTO in the new Patent Trial and

* The chill in the air with nothing to wear—an allusion to the fable “The Emperor’s New Clothes” (a copy can be found at http://www.andersen.sdu.dk/vaerk/hersholt/TheEmperorsNewClothes_e.html) (last visited Feb. 17, 2012).

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Appeal Board and the limited role the courts are permitted to play in the future relative to findings of fact essential for due process inherent in the right to trial by jury. This raises issues of separation of power and tripartite governance. Finally, the much ballyhooed first to file, redesigned for constitutional compliance as first inventor to file, is questioned both as to compliance with external requirements under international law, and equally as to the constitutional questions of whether there can be only one inventor or more, and whether it is within the delegated powers of Congress to change the rules to accord the patent right to the “first to file.” Is there a vested or inchoate right in the first inventor in fact, or does that interest arise only on meeting the statutory requirements? The answers, though somewhat clear, will generate a period of uncertainty and unrest until reviewed by the courts. What is unclear, and of even greater concern, is whether this will be an underpinning of the patent system by rush to file, imperfect inventions, and a “minefield” of patents that will never see the light of day other than blocking real innovation and invention.

I. INTRODUCTION AND OVERVIEW

The Patent Reform Act of 2011, renamed The America Invents Act 2011, enlightens the underlying quandary of legislative action cast as reform in a time and context rife with questions and differing perspectives. The goals and purpose of America Invents are, on the surface, sanitized and politically correct. The common thread on which the claimed reforms in the America Invents Act rest is premised on the historic model of patent ownership. This is coupled with a postured and perceived need for enhanced protection of patent rights domestically and internationally. Enhanced protection is posited to serve as an incentive for invention and innovation.

Subsets of concern include reducing the expenses of patent prosecution, as well as a minimizing of the implications and uncertainties of patent prosecution and financial trauma of post patent litigation. The public posture of these changes posits that America Invents will serve as a stimulus not only for innovation, but also to

2. The following has been repeated so often that it may soon attain status of legendary proportion amongst clichés, to wit: “Patents are the bedrock of innovation, ensuring that inventors and creators will be properly acknowledged and potentially compensated for their hard work.” Joe McKendrick, Patent Pending: Will Looming Patent Office Overhaul Help or Hurt Innovation?, SMART PLANET (Sept. 7, 2011), http://www.smartplanet.com/blog/business-brains/patent-pending-will-looming-patent-office-overhaul-help-or-hurt-innovation/18471.
create jobs and investment opportunities. If correct, the expectation is that the changes provided in America Invents will ensure increased investment, protect small businesses and individual inventors, speed processes, and eliminate backlogs in the patent office. On the other hand, the only thing we may agree on is a decade or more of uncertainty, regardless of the outcome, which some believe will result notably in a significant benefit for lawyers.3

Sprinkled throughout are measures to prevent expensive and debilitating lawsuits post-patent approval, as well as frivolous claims and defenses that dot the landscape of patent rights.

The following account on the Congressional Record speaks to and evidences a justification of America Invents premised on these objectives and anticipated outcomes:

The overarching purpose and effect of the present bill is to create a patent system that is clearer, fairer, more transparent, and more objective. It is a system that will ultimately reduce litigation costs and reduce the need to hire patent lawyers. The bill will make it simpler and easier to obtain valid patents and to enforce those patents and it will cure some very clear litigation abuses that have arisen under the current rules, abuses that have done serious harm to American businesses.

By adopting the first-to-file system . . . the bill creates a rule that is clear and easy to comply with and that avoids the need for expensive discovery and litigation over what a patent’s priority date is. By adopting a simple definition of the term “prior art,” the bill will make it easier to assess whether a patent is valid and cheaper for an inventor to enforce his patent. By recognizing a limited prior user right, the bill creates a powerful incentive for manufacturers to build factories and create jobs in this country. By allowing post-grant review of patents . . . the bill creates an inexpensive substitute for district court litigation and allows key issues to be addressed by experts in the field. By eliminating the recent surge of false-marking litigation, the bill effectively repeals what amounts to a litigation tax on American manufacturing.4

3. “Still, there are reservations about the new law. Legal eagle Dennis Crouch, for one, warns that there will be plenty of new work for lawyers: ‘The law of patentability will be more complicated and unstable for the next decade as we go through the transition.’” Id. (quoting Dennis Crouch, Some Hope for the Patent Reforms, PATENTLYO (Sept. 7, 2011), http://www.patentlyo.com/patent/2011/09/by-dennis-crouch-at-this-point-it-appears-very-likely-that-the-leahy-smith-america-invents-act-hr-1249-will-become-law-a.html).

The primary focus of this article is on but a few of the distinct representations reflected in the provisions of the Act and their implications as America Invents is phased in over the next eighteen months. These first three changes address (1) the backlog in the Patent Office by hiring additional examiners, (2) the elimination of the best mode requirement as a defense in an infringement action, (3) the expanding adjudicatory role of the Patent Office in supplemental reviews, derivation proceedings, intra partes review or a post-grant review relative to constitutional due process and separation of powers questions, and (4) the change from first inventor to first inventor to file.

The crystal ball into the future is somewhat cloudy, not as much to the meaning and intent of the legislation, but whether the proposed means and enhanced protection of patents set as the goal of the revision will, in fact, foster innovation and invention. Alternatively, the question may be slightly rephrased as to whether the proposed changes expanding and facilitating patent prosecution and protection will serve a primary distinct purpose, notably of securing competitive advantage by the exclusionary character of the patent right in the global market distinct from the historic belief in “progress” and dissemination of information. These issues appear beneath the surface of several of the changes and it would be remiss, in this broader framing of concerns, if one did not consider the voice of those who believe the real issues of reform lie in the efficacy of the patent model and system itself as a means to the end of innovation and invention and the changing character of that end. These issues warrant consideration now more than ever before as global concerns become preeminent in the financial well-being of most nation states. They remind that “patents” are a tool in the arsenal of Congress to implement constitutional purpose and are neither a right nor an end to itself.

The patent is supposed to be a means to an end, that end being innovation. Whether the innovation comes from the protection the patent affords the inventor, or from the dissemination of the information of invention the patent allows, the patent is not meant to be an end in itself. This seems to be changing. The patent is acquiring a strategic

5. Often questioned, but sometimes succinctly stated: “Will the proposed changes in the patent system help to stimulate greater innovation, or put more shackles on the innovation process?” McKendrick, supra note 2.
value increasingly independent of innovation. If this development has
gone largely unnoticed, it may be because the patent system tends to be
viewed from the entrenched perspectives of lawyers and economists, and
of a number of interest groups that justify their reliance on the system in
terms of the innovation it is supposed to encourage.8

Patent rights are but one of any number of tools that are available to
foster innovation, invention, and the distribution of knowledge for
progress and the public good.9 The aggregation of private wealth is a
means, quite aside from the primary objective, noted as follows:

Contrary to popular myth, the US Constitution does not provide
authors or inventors with special rights: It merely gives Congress the
option of “securing for limited times to authors and inventors the
exclusive right to their respective writings and discoveries.” The
purpose of granting such private monopolies is solely to “promote the
progress of science and useful arts.” 10

The above suggests that this means not merely the patching of an “old”
model of rights as a means of fostering and stimulating innovation and
protecting invention in a manner that may not only fail to achieve the
necessary corrective outcomes, but rather exacerbate underlying
problems detrimental to invention and investment in both the short and
long range. There is considerable belief that the Patent Act is broken
beyond remedy and the fixes of America Invents are more cosmetic than
real:

Rather than trying to continually fix the existing system with band-
aids, it would be far better to eliminate it entirely. The resulting drastic
restructuring of industry would lead to new, more competitive business
models – and an environment far more favorable to the small
entrepreneur.

Why are we keeping alive a system of legally protected private
monopolies that does not deliver on its promises and, instead,
generates a vast number of socially damaging activities? The answer

9. One of the great failings of America Invents is that it did not reverse engineer the
problems and look beyond the patent construct as a means to the end of innovation and invention. It
is the underpinning, or background, of analysis, particularly in the sections concerning the backlog
in the patent office and the issue of best mode defense.
10. David K. Levine & Michele Boldrin, The Patent System: End It, Don't Mend It,
1208/p09s06-coop.html.
seems twofold: legislative and political inertia on the one hand, and vested monopolistic interests exploiting the status quo on the other.

If we wish to innovate our way out of the current economic crisis, we must start by dismantling the myth of intellectual property, and then search for a system of property rights capable of genuinely fostering innovation and productivity. 11

These observations are but a snippet-like sampling along a continuum of perspectives and issues that highlight the apparent fixation on patent protection as serving the means to promote innovation and invention. On the assumption that innovation is the goal, collateral costs and negative implications need to be accounted for:

Policies that strengthen and extend patent rights for the purpose of encouraging innovation find support under the conventional view of patents with its well-known public policy tradeoff: Patents provide incentives to research and to disclose information, but at the social costs of reducing the invention’s use during the patent life.12

The author then goes on to ask: “to what extent did . . . stronger patent protection cause the recent surge in patent activity? Moreover, to what extent do these patents reflect valuable inventions and the disclosure of useful information that would not have been available without the policy changes?”13

There are many that appear to question the efficacy of patents and the purpose and import of America Invents.14 This article joins the growing body of literature that questions the intent and implication of strengthening patent rights by rushing the filing of patents, lowering the

11. Id.
13. Id. at 133.
14. This paper references a small fraction of the articles, blogs, posts, and other materials found on the internet as a growing body of questions emerges relative to America Invents. Everyone gets into the questioning act, even technology magazine authors:

I’m just going to be blunt: Our patent system sucks. . . . For 10 years patent reform has had the backing of major corporations who, like everyone else are sick of patent trolls and costly defensive IP purchases. Nobody—not even consumer groups, business, or inventors—believes this system works. Despite all this, Congress managed to punt on real change. “It took 10 years to work out a deal that changed almost nothing,” says Jason Schultz, director of the Samuelson Law Clinic at UC Berkeley. . . . The administration claimed it to be a job creation bill, which is true if your job is patent attorney. . . . “There is growing evidence that too many patents actually hurts the economy.” Quinn Norton, Byte Rights: Killing Off Innovation, MAXIMUMPC, Holiday 2011, at 11.
criteria and possible quality of inventions, and altering the post grant ability to challenge the validity of a patent. The question is not whether this will simply protect the patent right or foster innovation or progress, but rather if it will desecrate these goals, as well as jobs and the future of this nation by the failure to look at alternatives. How can that be? Everyone knows that patents have value and that if we as a nation cooperate and have trading partners and protection quid pro quo that we will prevail based on ingenuity and innovation.  

In a succinct challenge to the present patent regime, the time is ripe to look beyond the model of patent exclusion, which may be an outmoded construct and warrant the use instead of public subsidies. Likewise, the ground shaking reminder of focusing on a direct reward as a one-time payment, may be more certain and effective in encouraging innovation. Certainly, a one-time payment model avoids the uncertainties of patent prosecution and post patent litigation which in itself encourages invention. The one-time payment model could be made self-sustaining by licensing fees replenishing public award resources, yet permitting use and innovation in the market place. Subsidy in India has spawned an attempt to produce and distribute an affordable tablet PC to encourage literacy in India.

The contemporary model of exclusion needs to be understood as a reward for invention premised on “mortgaging the future,” beneficial to a new fledged nation of limited means, but over time the antithesis of progress and an inhibition to public benefit in evolving contemporary societies. History may recognize America Invents for what it did not consider, the changes that were not made, and the missed opportunity at a critical juncture. But it is now the present and that will be a time in the future. And the questions of this article remain focused on the implications of America Invents as enacted. While there are a few

18. Id.
20. See Shapiro, supra note 19, at 131.
analysts that advocate the dismantling of the patent system, there are many more, as herein, that are simply concerned with the impact of specific revisions to the patent act America Invents.

The most highly publicized change is "first to file," which is thought will increase the pace and protection of patent rights.\textsuperscript{21}

The distinct assumption here is that enhanced global enforcement of patent rights is critical to innovation and invention that will be the result of compliance with the requirements of other nation states and treatises that award patent rights based on first to file. This illusion of greater protection is also proposed as instrumental in reducing risks and uncertainties premised on the "belief" that it will be easier to enforce priority of filing rather than the order of invention. America Invents, however, does not resolve the uncertainties of inventor status in "first inventor to file." There remains the ambiguity and uncertainty of derivative proceedings under the Act challenging the inventor status of those that file first. This poses direct financial costs as part of patent prosecution and post grant challenges to patent validity, as well as possible appeals to the circuit court as permitted by statute.

There are several less highly publicized changes in America Invents that include attempts to speed the patent process by hiring additional examiners,\textsuperscript{22} attempts to eliminate third party interference challenges,\textsuperscript{23} post-grant review limitations on appeal, and short statutes of limitation such as in Derivation Proceedings.\textsuperscript{24} Any such petition may only be filed within one year after the first publication of a claim to an invention that is the same, or substantially the same, as the earlier application’s

\textsuperscript{21} "The most obvious change will be the awarding of patents to the ‘first to file’ applicant for a new idea, versus the previous, more amorphous policy of ‘first to invent.’ This change, it is hoped, will bring more clarity to who rightfully holds a patent, and make litigation less necessary." McKendrick, \textit{supra} note 2.


\textsuperscript{23} Allison Williams Dobson & John Conley, \textit{Analyzing The America Invents Act}, GENOMICS L. REP. (Sept. 19, 2011), http://www.genomicslawreport.com/index.php/2011/09/19/analyzing-the-america-invents-act. "Under current law, such disputes are resolved in Patent Office proceedings called interferences, which are decided under complex rules that take into account who first conceived of the invention, who first reduced it to practice, and whether the competing parties were continuously diligent in their respective efforts to reduce to practice. The interference proceeding will be eliminated by the AIA legislation" subject to different criteria. Challenges may be allowed before the new Patent Trial and Appeals board in derivation proceedings. America Invents Act, Pub. L. No. 112-29, sec. 3(i), § 135, 125 Stat. 284, 289-90 (2011).

\textsuperscript{24} 125 Stat. at 289-90.
claim and even limiting the use of the required best mode of practicing the patent as a defense in an infringement action.\textsuperscript{25} While some of the above may speed the process, do these really serve as an appropriate "means" of encouraging innovation and invention? One must inquire at what collateral cost or expense and whether they are, in fact, likely to be at odds with the public interest relative to required fundamental disclosures of knowledge that lie at the foundation of the patent right in the first place.

Professor Thomas Folsom, in a typically succinct, understated manner, simply calls it "a prescription for an as yet undefined ailment."\textsuperscript{26} It is, as yet, an unanswered question as to whether changes to the patent model can fix what needs to be done to accomplish innovation and invention and capital investment.

This leaves us with what may be among one of the more serious impediments to patent efficacy in both the present and near future. There is no longer a buffer period to resolve the impacts of ambiguities and long term consequences in the ever accelerating pace of technological change and needs. Even if all the provisions of the Act are ruled as constitutional and the provisions of the Act permitted, these interim uncertainties will have a negative impact on capital investment and venture capital investment. Contemporary models of loans and grants recognize market factors usually bundled in risk and readiness assessment.\textsuperscript{27}

It is, thus, that America Invents has fostered a beehive of conjecture and activity. The Act touches all levels of variables, some independent and others clearly dependent. What is set forth to be a purposeful and hopeful outcome is with little prior empirical validation, albeit there is provision for extensive post-Act review and report to Congress. It is with hope that the promises of the Act function as intended, although there is no assurance they will not instead be a minefield of question and delay. For the present, the promises of the America Invents Act may be the path to riches, or simply a "pocket full of mumbles."

\begin{quote}
I am just a poor boy.
Though my story's seldom told,
I have squandered my resistance
For a pocketful of mumbles,
\end{quote}

\textsuperscript{25} See infra Part II.2.
\textsuperscript{26} Thomas C. Folsom, Minority Report: Real Patent Reform, Maybe Later—the America Invents Act and the Quasi-Recodification Solution, 6 AKRON INTELL. PROP. J. 179 (2012).
\textsuperscript{27} See generally DR. PHYL SPESER, THE ART AND SCIENCE OF TECHNOLOGY TRANSFER (2006).
Such are promises
All lies and jest
Still, a man hears what he wants to hear
And disregards the rest. 28

How many different legal issues will arise challenging the validity of provisions of the Act? The list most certainly will include challenges as to constitutional limits of the delegation to Congress. This will include challenges addressed to due process, taking issues, statutes of limitation, trial by jury, and access to the courts. Judicial deference has been the order of the day in ruling on the breadth of delegation to Congress by Article I, Section 8, Clause 8, which has been uniform over the years. 29 How ever these issues are resolved, what will be the effect of uncertainty on innovation, invention, capital investment, venture capital availability, and readiness assessments? Contemporary models of loans and grants recognize market factors usually bundled in risk and readiness assessment. 30

In the end, it may well be that all the provisions of the Act survive judicial scrutiny and are not found to violate due process, free speech, or the breadth of the delegation to Congress under Article I, Section 8, Clause 8, which leave it with the apparently exclusive judgment on the means to accomplish constitutional ends (which are still a matter of confusion after the decision of the court in the Eldred case 31 ruling on CTEA). The concerns are confusion and lack of certainty in a rapidly changing global economy that is suffering financially and politically. In the end, it may be that the short-term ambiguities that affect both substance and process, some of which are the subject of this article, will not taint the outcome.

Several groups representing small businesses, entrepreneurs, and early-stage investors, a targeted group under the statute, have said that change puts small companies, which usually account for the bulk of new

28. PAUL SIMON, The Boxer, on BRIDGE OVER TROUBLED WATER (Columbia 1969). It is interesting to note that author Marc Elior asked Paul Simon what mumbles meant and received the answer that he really didn’t know. This may well be the same for the promises in the patent act. MARC ELIOT, PAUL SIMON: A LIFE 103 (2010).

29. See generally Robert I. Reis, Checks, Balance and Judicial Wizardry: Constitutional Delegation and Congressional Legislation, 5 AKRON INTELL. PROP. J. 251 (2011) (noting that instances overturning congressional action have been limited to due process questions—mostly trial by jury on issues and the intersection of congressional action with free speech).

30. See generally SPESER, supra note 27.

31. Eldred v. Ashcroft, 537 U.S. 186 (2003) (holding the copyright term extension did not violate the constitutional requirement that copyrights endure only for “limited times” or the First Amendment).
jobs, and individuals at a disadvantage to large companies that employ fleets of patent lawyers.

"This bill is unequivocally a job killer," said Valerie S. Gaydos, a Baltimore-based investor in early-stage companies. "It will create a rush to the patent office, with innovators seeking to file anything and everything. The applications will be less complete, less well written and it will create more of a backlog." 32

Long-term perspectives are dependent upon the findings and reports required under the Act after the first and subsequent years of operation and adjustments necessary to right the course. 33 The statutory required studies and reports address many of the structural changes of the Act, including PTO processes, as well as the impact of post grant actions on patent viability in promoting invention, innovation, and investment. While many of these questions are legal issues, some address the substantive effect of the Act on innovation and invention. Hopefully, analysis will reveal whether the rush to file inhibits, rather than encourages, the best of invention, or whether a compressed statute of limitations on actions, or restrictive PTO review, acts as a shield for non-disclosure or discourages the nurturing required for the best of inventions. 34


33. The America Invents Act has wisely provided for a post enactment series of required reports and studies addressing the impact of the act and possible changes that may be needed. The highlighted areas of concern include, but are not limited to, matters such as the effect of first to file on small business, prior user rights, genetic testing, and the question of international protection for small business. AIA Studies and Reports, THE UNITED STATES PATENT AND TRADEMARK OFFICE AND AGENCY OF THE DEPARTMENT OF COMMERCE, http://www.uspto.gov/aia-implementation/aia_studies_reports.jsp (last visited Feb. 22, 2012).

34. For example, Thomas C. Folsom questioned the value of the Act: "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." Folsom, supra note 26, at 181.
II. BIG BITS, LITTLE PIECES, AND NIBBLES: PROVISIONS OF AMERICA INVENTS

A. Backlog in PTO: Chicken and Egg: A Failure of Reverse Engineering: Not Reinstating the Requirement of a Working Model for Patent Review

The backlog of patents awaiting review is hurting small inventors. The statistics leave little doubt that the inability of the patent office to review and issue patent rulings in a reasonable time frame seriously inhibits innovation and invention:

The U.S. Patent and Trademark Office is sitting on hundreds of potential small businesses—and, according to its director, “millions” of jobs—because it can’t keep pace with patent applications.

“Hundreds of thousands of groundbreaking innovations that are sitting on the shelf literally waiting to be examined—jobs not being created, lifesaving drugs not going to the marketplace, companies not being funded, businesses not being formed—there’s really not any good news in any of this,” . . . The 1.2 million application backlog—at an agency Kappos refers to as “our country’s innovation agency”—stifles economic advancement at exactly the time China is investing heavily in research and development. According to the World Intellectual Property Forum, China has the world’s third-busiest patent agency behind the U.S. and Japan, but may soon overtake Japan.

More than 700,000 of those 1.2 million applications in the pile haven’t had so much as a preliminary examination. . . .

What’s the big deal about a paper jam? Technologies go unprotected or become obsolete, while inventors and investors are forced to pace the halls, unable to start their businesses. Attempts by the patent office to catch up on its paperwork have also been disastrous for entrepreneurs: An extensive Milwaukee Journal-Sentinel investigation last year revealed that in an effort to catch up with its paperwork, the agency rejected applications at an unprecedented 60 percent rate, including many that were later proved worthy of a patent.
“Highly innovative firms rely on timely patents to attract venture capital,” Kappos said, adding that 76 percent of start-ups say their venture backers needed the validation of a patent to invest.\textsuperscript{35}

This report is not isolated; just the numbers seem to change. \textit{Wired Magazine} reported that there are reputed to be a million or more applications awaiting review and decision in the PTO and pins the cause of that backlog by their analysis of the failure of the PTO to require a working model.\textsuperscript{36}

The question is whether, if not always the case, why is there a backlog now? Is the backlog the result of an increase in the number of inventors, which has led to an increase in the volume of patent applications? Is the backlog the result of increasingly complex and rapidly evolving technologies? Or, is the backlog simply the result of other factors that inhere in the patent review process as currently structured? The solution proposed by America Invents does not address any of the elements that lie at the cause of the problem itself, other than the personnel necessary to clear the backlog in the office. The Act proposes to hire a thousand or more additional patent examiners and support personnel to speed the flow through the office and reduce or eliminate the backlog.\textsuperscript{37}

The history of the PTO shows that through 1870, the Patent Act required the applicant to provide a working model with the application, albeit the PTO continued to require the working model through 1880. Thereafter, to date, the PTO may require the applicant to provide a working model if deemed necessary.\textsuperscript{38} The PTO requires the applicant to provide a working model for all perpetual motion inventions.\textsuperscript{39}

The purpose of the working model has been to demonstrate the workings and utility of the invention, as well as to show that it accomplished its purpose, and “in fact,” worked to take it out of the theoretical and demonstrate its qualification as new and novel, not


\textsuperscript{36} Koerner, \textit{supra} note 22; see also Dennis Crouch, \textit{PTO Requests Model of Warp Drive Invention}, PATENTLYO, http://www.patentlyo.com/patent/2006/02/pto_requests_mo.html (Feb. 19, 2006).

\textsuperscript{37} See also Wyatt, \textit{supra} note 322.

\textsuperscript{38} “The Director may require the applicant to furnish a model of convenient size to exhibit advantageously the several parts of his invention. When the invention relates to a composition of matter, the Director may require the applicant to furnish specimens or ingredients for the purpose of inspection or experiment.” 35 U.S.C. § 114 (2006).

\textsuperscript{39} Id.
obvious to those skilled in the arts and trade.\footnote{40} No doubt the working model was thus a relatively clear means of facilitating the patent review process. It provided that tactile sense of function by having hands on, rather than relying on or taxing the skills, experience, and imagination of the patent examiners. A glimmer of the value of historic models can be gleaned from the following:

Inventors these days have it easy. Usually, all they need to do when petitioning for intellectual property rights is file the paperwork. Before 1880, though, anyone with a new product idea had to build a miniature version of it to help inspectors understand the design. A selection of those patent models is featured in a new exhibit at the Smithsonian, *Inventing a Better Mousetrap*, set to open in November.

Even with a cast of thousands, the underlying problem is not solved by moving patent applications through without providing a clear demonstration of each of the critical elements noted above, as well as what can be gleaned at the time of best mode as garnered from the physical model. Granted, the construction of a model involves both time and expense to the inventor. This model construction can be subsidized by grants on presentation of proposals deemed worthy of subsidy, as done in other nation states.\footnote{42} One only has to look at the inventive and

\footnote{40. See, e.g., Koerner, supra note 22.}
\footnote{42. On India: India on Wednesday unveiled the Aakash, meaning “sky” in Hindi, billed as the world’s least-expensive tablet. The plan is to distribute thousands of sets in coming months to students at a $35 government subsidized rate. It’s taken several years to develop, faced a lot of skepticism and received help from the taxpayer given the state’s actual cost of around $50. But the Aakash offers the promise of computing to millions of villagers in rural India who often seem to be living more in the 19th century than the 21st. “Today
protection process reflected in *O'Reilly v. Morse*\(^{43}\) and the telegraph or to Edison's quest for the proper elements of the electric light.\(^{44}\) Would either have passed muster if they did not have the requirement of a working model that drove both to perfect their imaginations in theory and reality? Would we have been the beneficiaries of a completed invention? Was there any reason to believe that seeing the telegraph work, or that the light created by the mind of Edison perfected for the art of his time, would not resolve the issue of invention, utility, novelty, and innovation? We are left with the dubious distinction of questionable inventions that may never see a working model, much less manufacture or distribution. How many of the backlog represents this level of invention?

One of the issues militating against continuing to require a working model was the storage space required to house the growing number of submissions. Surely this requirement could have been satisfied by provisions for offsite storage. If deemed necessary, the inventor could have been requested to save the working model for the length of the patent term, which is a limited time. The above exhibit demonstrates the value of these models to the examiners in their evaluation process. If one of the collateral objectives is to provide jobs in this critical economic period, then, as in the model set by then President Roosevelt during the Great Depression, those skilled in the arts and science can be hired and employed as facilitators for inventors in the preparation of their applications and models.\(^{45}\) A good start in this direction follows: "To address small business concerns, the bill also includes a provision that establishes a ‘Patent Ombudsman Program’ that will provide

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\(^{43}\) O'Reilly v. Morse, 56 U.S. 62 (1853).


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support and services relating to patent filings to small business concerns and independent inventors.\textsuperscript{46}

An interesting application for a theoretical mode of using gravitational forces as a source of energy serves as a validation and example of the pragmatic necessity for a working model. This patent application involved the now "infamous" Worsley-Twist warp drive review by the PTO (hereinafter "Worsley"). The application was for the use of gravitational forces as a means of propulsion as follows:

Abstract of Invention

The present invention relates to the use of technical drive systems, which operate by the modification of gravitational fields. These drive systems do not depend on the emission of matter to create thrust but create a change in the curvature of space-time, in accordance with general relativity. This allows travel by warping space-time to produce an independent warp drive system. Differentials electron flow through a body in rotation is directed so as to simultaneously pass through a said body in its direction . . . .

The Diagram and outline of application\textsuperscript{47}


The solution set forth by America Invents facilitates the securing of the private rights, but does not necessarily address either innovation or invention. Some posture that most of the low hanging fruit of invention has been captured and privatized and brought into the lines of commerce on a national and international plane.48

Technologies and the expanse of patent protection coverage are far more esoteric in this day and age than in the time of mechanical or tangible interface. Reform should recognize the ever-changing modes of innovation and assure the necessary elements to encourage, foster, and nurture invention consistent with constitutional and congressional purpose. Two staples of example again reach back to the teachings of Morse49 and Edison,50 whose decades of lengthy experimentation generated working models for the eyes of those who needed tactile understanding by demonstration, not abstraction. The solution of adding additional examiners and personnel is a placebo, rather than a systems analysis of a problem and recognition of cause and effect; the result may, thus, be “paper thin.”

B. Best mode51: Denigration of disclosure striking at the heart of the patent grant

SEC. 15. BEST MODE REQUIREMENT (a) IN GENERAL.—Section 282 of title 35, United States Code, is amended in the second undesignated paragraph by striking paragraph (3) and inserting the following:

“(3) Invalidity of the patent or any claim in suit for failure to comply with--

48. Charles Duell, the then commissioner of the USPTO suggested in 1899 that at some point all inventions will have been found. This notion is related to a conjecture that, like low hanging fruit, the best inventions will be made first. However, English economist George Shackle argued that, as there is no way to cordially rank knowledge discovery according to its value to society we cannot assume the low-hanging fruit is discovered first.


49. Id.

50. Id.

(A) any requirement of section 112, except that the failure to disclose
the best mode shall not be a basis on which any claim of a patent may
be canceled or held invalid or otherwise unenforceable.\textsuperscript{52}

The focus of America Invents on the implications of the use of best
mode as a defense in an infringement action is apropos. Over the years,
the rampant use of failure to set forth best mode as a defense
demonstrates that it is almost a reflex action to allege failure in an
infringement action. The fact that the overwhelming majority of these
claims have been rejected on the facts or law further compounds the
harm to the patent holder and society. The economic consequence to the
patent holder is great. In many cases, there is a likelihood of settlement
to avoid these unwarranted costs of defense, which hover to chill
innovation and the veracity of the patent itself. Lest this be dismissed
too quickly, we are reminded of the broader underlying philosophy of
patent purpose, perhaps lost in the occasional myopia of America
Invents as succinctly set forth in \textit{Graham v. John Deere Co.}\textsuperscript{53}:

Jefferson’s philosophy on the nature and purpose of the patent
monopoly is expressed in a letter to Isaac McPherson (Aug. 1813), a
portion of which we set out in the margin. He rejected a natural-rights
theory in intellectual property rights and clearly recognized the social
and economic rationale of the patent system. The patent monopoly
was not designed to secure to the inventor his natural right in his
discoveries. Rather, it was a reward, an inducement, to bring forth
new knowledge. The grant of an exclusive right to an invention was
the creation of society—at odds with the inherent free nature of
disclosed ideas—and was not to be freely given. Only inventions and
discoveries which furthered human knowledge, and were new and
useful, justified the special inducement of a limited private monopoly.
Jefferson did not believe in granting patents for small details, obvious
improvements, or frivolous devices. His writings evidence his
insistence upon a high level of patentability.

“Stable ownership is the gift of social law, and is given late in the
progress of society. It would be curious then, if an idea, the fugitive
fermentation of an individual brain, could, of natural right, be claimed
in exclusive and stable property. If nature has made any one thing less
susceptible than all others of exclusive property, it is the action of the
thinking power called an idea, which an individual may exclusively
possess as long as he keeps it to himself; but the moment it is divulged,

\textsuperscript{53} Graham v. John Deere Co., 383 U.S. 1, 6 (1966).
it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density in any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation. Inventions then cannot, in nature, be a subject of property. Society may give an exclusive right to the profits arising from them, as an encouragement to men to pursue ideas which may produce utility, but this may or may not be done, according to the will and convenience of the society, without claim or complaint from anybody."

The difficulty of formulating conditions for patentability was heightened by the generality of the constitutional grant and the statutes implementing it, together with the underlying policy of the patent system that "the things which are worth to the public their embarrassment of an exclusive patent" as Jefferson put it, must outweigh the restrictive effect of the limited patent monopoly. The inherent problem was to develop some means of weeding out those inventions which would not be disclosed or devised but for the inducement of a patent.54

How many of the underpinnings of disclosure will be affected by retention of best mode as a condition to patent issuance, yet diminished by removing the penalty for not doing so if one charged with infringement cannot raise the issue as a defense? America Invents lowers the bar to patent prosecution and the ability to weed patents out that are not deserving of patent protection. This appears to be another in the ever-lengthening list that implicates the public benefit which lies at the very fabric of reward, innovation, and disclosure.55

54. Id. at 8-11. There is a section of this quote that will be set forth in the context of section 3. Expansion of PTO fact finding and decision making function that, while applicable here, clearly reside in the issues of due process, checks and balances, and separation of powers.

The origins and metamorphosis of best mode as a distinct element of the patent application begins subtly in early cases. The language and focus of the court is not on the formalized element we know as best mode, but on best mode as a critical element of invention itself. Thus, in these earlier cases, the court focuses on modes, new modes, best modes in the use of existing known or patented machinery as a significant and protectable element distinct, but inherent, in the context under consideration.56

From the middle of the 1850s, the concept appears to have crystallized as what we now know as best mode of implementation of the invention. These cases serve to illuminate the subtle boundary between best mode disclosure, enablement, and the public benefit in disclosures of new and improved "modes" of use. The early cases also indicate that new modes as discovered and applied are patentable in order to encourage disclosure, which in itself is the benefit and key to the patent right. In some ways, these early distinctions may be thought analogous to present issues surrounding some method patents of today. If nothing else, these cases confirm the unquestionable value of the requirement of best mode disclosure as an element of the patent bargain.57 Full and fair disclosure requires the teaching of the best mode of how to carry out the invention. Best mode is universally understood to be an essential element of the patent application. It appears to some to be an inherent element of constitutional purpose and statutory requirement.58

56. A search on "best mode" federal courts yielded 1961 cases; after removing all the cases involving best mode questions unrelated to patents, approximately 1500 cases referenced the requirement for patents. The progression appears to begin in Gibson v. Harris, 10 F. Cas. 318, 319-20 (C.C.N.D.N.Y. 1846), which looks at first glance to be first case to apply best mode, followed closely by Sloat v. Spring, 22 F. Cas. 330, 335-37 (C.C.E.D. Pa. 1850), indicating that the disclosure must be of the "principle or modus operandi of his invention; not merely whether the ... details or accidents described in it as the best mode of building a machine are the same, or whether the form or propositions may differ..."

57. See, e.g., Smith v. Snow, 294 U.S. 1, 4 (1935) (a method of passing warm air over eggs to have them hatch quicker; could not avoid patent infringement by changing "mode" suggested by patent holder). See also Thilghman v. Proctor, 102 U.S. 707, 718 (1880) ("The process may be performed more rapidly and also continuously by causing the mixture of fatty matter and water to pass through a tube or continuous channel, heated to the temperature already mentioned; the requisite pressure for preventing the conversion of water into steam being applied during the process; and this I believe is the best mode of carrying my invention into effect. In the drawing hereunto annexed are shown figures of an apparatus for performing this process speedily and continuously, but which apparatus I do not intend to claim as any part of my invention.")

58. § 112. Specification: The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or
Without full disclosure, the essence of the invention and teachings necessary for progress in the arts would be withheld from public knowledge; the seeds for further invention and innovation would be compromised and the requirements for patent protection incomplete. The cases evidence a keen understanding of the requirement. They temper the requirement as best mode known to the inventor at the time of patent prosecution to take into account alternatives and changes over time.\textsuperscript{59} The standard is not to be understood as a "how to do it" for the beginner, but to enable those already skilled in the arts to produce the results of the patent.\textsuperscript{60} It does not have to be the best mode in absolute terms, but it will suffice for patent issuance, if as noted above, it is the best mode known to the inventor. If mistakenly not disclosed, supplemental proceedings are available to rectify the error or omission so long as it is done in a timely manner. On the other hand, there are also instances where the best mode is deliberately withheld, hidden, or fictitiously stated.\textsuperscript{61} A finding that the failure to disclose best mode is purposeful constitutes inequitable conduct that has independent consequences, possibly voiding the dependent patent claims. Likewise, a failure to disclose best mode in the patent cannot be used as a defense.

A further reading of the best mode cases suggests that while an innocent or inadvertent failure to set forth the best mode in itself under America Invents might not suffice as a defense, if it rises to the level of inequitable conduct, there looms the threat of patent claim invalidation and attorney fees.\textsuperscript{62} Keeping the best mode a secret gives the patent

\textsuperscript{59} Transco Prods. Inc. v. Performance Contracting, Inc., 38 F.3d 551, 553 (Fed. Cir. 1994).

\textsuperscript{60} See, e.g., Thilghman, 102 U.S. at 718.

\textsuperscript{61} See, e.g., Consol. Aluminum Corp. v. Foseco Int'l Ltd., 910 F.2d 804, 812 (Fed. Cir. 1990) (Where the court found an intentional fabrication of a best mode that was fictitious and intended to conceal the actual best mode. The court held that all three related patents in the case were unenforceable.).

\textsuperscript{62} Speedplay, Inc. v. Bebop, Inc. discusses inequitable conduct:

Bebop further contends that Speedplay engaged in a pattern of inequitable conduct that requires holding all three patents unenforceable. In Consolidated Aluminum Corp. v. Foseco International Ltd., 910 F.2d 804, 812, 15 U.S.P.Q.2d 1481, 1487 (Fed. Cir. 1990), this court held that the intentional fabrication of a fictitious best mode in one patent rendered unenforceable three other patents in which the earlier concealment of best mode "permeated the prosecution." Our analysis in Consolidated Aluminum made

with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention. 35 U.S.C. § 112 (2006).
holder the power and economic gain that can be garnered by being able to manufacture a superior product or one at lesser cost than the competition. 63

The courts have been relatively uniform in diverse cases to permit the defense and engage in detailed review of the facts and circumstance, often finding the patent holder has failed to state the best mode known to him or her at the time of the patent issuance. 64 If one seeks patent protection, the cases have long indicated that quid pro quo is disclosure of what otherwise would have been a trade secret. 65 Not only is it the defendant that needs to be considered in these actions, as the public is certainly deprived of the benefit of full disclosure. 66 If challenged, the public can best be assured that the penalty of patent invalidation should remain a viable threat. If the best mode was not set forth for defensible reason, then in the discretion of the court, relief of corrective proportions may suffice to protect the public interest and the interest of the alleged infringer. If deliberate, the full weight of the penalty of invalidation should be on the patent holder. The beneficiary of a viable defense is not simply the alleged infringer: it is the public because all those rights within the patent would revert to the public domain at that time. The cases clearly support the legitimacy of using this defense as the best

clear, however, that we would have to find inequitable conduct sufficient to hold at least one patent unenforceable before considering whether to hold an entire group of related patents unenforceable. Because we have sustained the trial court's conclusion that no such inequitable conduct occurred in this case, we decline Bebop's invitation to hold all three of Speedplay's patents unenforceable because of an alleged pattern of inequitable conduct.

211 F.3d 1245, 1259 (Fed. Cir. 2000).


64. Taltech Ltd. v. Esquel Enters. Ltd., 604 F.3d 1324, 1328 (Fed. Cir. 2010) (failure to disclose best mode in light of all the facts indicated sufficient culpability to render the claims voided).


[It has been consistently held that a correct and adequate description or disclosure of a claimed discovery (which, in the case of a machine, involves particularly the operation of it) is essential to the validity of a patent, for the reason that such a disclosure is necessary in order to give the public the benefit of the invention after the patent shall expire. The source of the power to grant patents, and the consideration for granting them, is the advantage which the public will derive from them, especially after the expiration of the patent monopoly, when the discoveries embodied in them shall become a part of the public stock of knowledge.
mode known at the time of prosecution. In the end, if this defense is not allowed, the amendment condones keeping a "trade secret" which is the antithesis of benefit to the public in full disclosure. It is perhaps among the more simplistic disconnects in terms of touted reform hailed by the proponents of America Invents by removing the teeth of patent forfeiture for failure to include an essential element of inventive disclosure—the Section 112 Best Mode requirement.

As it stands, this change condones the antithesis of the patent privilege by permitting what otherwise would be a trade secret. Doing away with the defense of failure to disclose best mode is indefensible when Congress had many more appropriate alternatives that they might have considered. If the harm is the frivolous use of failure to state the best mode, then what is the "best mode" to prevent harm to the patent holder? One remedy would have been to make the party alleging best mode as a defense bear the costs of defense, as well as damages to the patent holder, if the court denied the defense. One who pleads this defense should also be required to make a deposit in court, or a guarantee or bond as guarantee of payment in the event the defense is disallowed. Why denigrate the best mode requirement and cause collateral damage to the public benefit by gutting it? Why leave it there in the first place if not to be enforced? The question is simple: if the claim of the defendant in the action is valid, why should it not be used as a defense? Why should withholding an essential element of the grant of the patent right not be raised in an infringement action as a defense? Is this not a case where due process might require that a party charged with infringement have the ability to defend on infirmities in the granting of the interest alleged to be violated?

The basis of support for the statutory change rests on seemingly syllogistic logical analysis simply because failure to state the best mode is raised in a significant number of cases as a defense in an action for infringement. The statutory perspective focuses on the private right created by the system and the impact of uncertainty and expense of judicial proceedings to enforce the patent right, particularly the defense of defects in the patent occasioned by failure to state the best mode. It

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67. Classen Immunotherapies, Inc. v. Biogen IDEC, 659 F.3d 1057, 1072 (Fed. Cir. 2011) ("[T]his quid pro quo is fundamental to patent systems. The statutory requirements of description, enablement, and best mode, implement this policy, as these requirements facilitate the understanding and elaboration of the inventor's contribution.").

attempts to create certainty by not permitting a defendant in an infringement action to raise failure to state the best mode as a defense. While it is admirable to attempt to encourage and facilitate the protection of the patent right granted to an inventor, the right was granted in the first place premised, not on private gain, but on public benefit.

In essence, does not this statutory provision appear to follow the well-worn path of removing or neutering conditions precedent to perfection of constitutionally based statutory rights? The disappearance of the copyright requirements for perfecting the copyright interest demonstrates the consequence of focusing on private rights while eliminating the affirmative acts previously required securing the copyright interest. The result of removing required acts has increased the number of copyrights privatized by unintended as well as intended claims, and reduced the scope of the public domain. In light of the discussion noted above, is the path of reform to do away with the defense? Is this the only way of achieving some acceptable modicum of certainty and a buffer against frivolous defenses and the expenses of litigation? Does the protracted litigation represent cost to the litigants—yes? Does that threat of litigation and loss of patent right act as a possible deterrent?—yes? Does it resolve the problem by not permitting the defendant in an infringement action to raise the issue of an important element of the patent requirement lacking or infirmed? Understanding the economic and practical consequences of frivolous or marginal lawsuits that diminish the value and efficacy of the private rights requires looking at all the alternatives available. There are a number of other legal models that address winners and losers—making the loser bear the cost of litigation including attorney fees, court costs, and lost opportunism based on the litigation. Would it not be more efficacious if the system penalized the party that raised the defense if they were unsuccessful and failed in their proof? Litigious behavior and sham defenses certainly would be curtailed if the losing party had to bear all, or most of, the costs and damages associated with their actions. At the same time, the public interest would be served and not diminished.

69. The full implication of this is magnified in consideration of the consequences of the Copyright Term Extension Act of 1998, Pub. L. No. 105–298, §§ 102(b) & (d), 112 Stat. 2827 (amending 17 U.S.C. §§ 302, 304). What is left as necessary to the perfection of a copyright? The only requirement is original authorship and fixed in a tangible medium. See generally Reis, Progress, supra note 55.

70. See, e.g., 35 U.S.C.A. § 273 (f) (West 2011) (university attorney fees appear to be covered under the act).
The premise is to allow a defendant to use the failure to set forth the best mode as a defense and if the patent is found lacking in this requirement, it should be ruled void. If the defense fails, however, the defendant should be liable for damages, attorney fees, and court costs. The Act recognizes this liability in several instances, including civil appeals from actions of the PTO. In the case of best mode defenses, the defendant should also be required to post a bond to ensure these obligations.

Perhaps the real question at this point is whether this presages that America Invents just winds up being another legislative action that presumes “paper laws” expanding the historic use of private rights and protections will have the desired effects of encouraging innovation and invention. Congress, in enacting America Invents, misses the point of the future by not recognizing that the coming order has been evolving in which distinctly different paradigms of technology and invention prevail.

C. Expansion of PTO Jurisdiction and Process—A Nibble at Due Process Issues

The questions posed here are not narrowly limited to the purpose articulated justifying an expanded role for the “Patent Trial and Appeal Board” in America Invents. America Invents makes it crystal clear that the purpose is to streamline the patent process. These questions are directed as to whether these changes alter the nature and function of the administrative process itself by substituting the Patent Trial and Appeal Board for matters that had previously been left to the courts. The restrictive rights of review and non-appealable determinations by the Patent Trial and Appeal Board will inevitably be questioned. The impact of limiting rights of appeal, in most cases, from decisions of the Patent Trial and Appeal Board to the Court of Appeals, Federal Circuit, may be seen effectively bypassing, once again, inherent due process issues such as the right to trial by jury, as well as posing separation of powers issues. The question is whether the process before the Patent Trial and Appeal Board, as constituted, violates basic tenets of separation of powers, checks and balances, and due process. We are reminded that Jefferson understood the function of the court and the legislature as both inherent and distinct.

As a member of the patent board for several years, Jefferson saw clearly the difficulty in “drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.” The board on which he served sought to draw such a line and formulated several rules which are preserved in
Jefferson's correspondence. Despite the board's efforts, Jefferson saw "with what slow progress a system of general rules could be matured." Because of the "abundance" of cases and the fact that the investigations occupied "more time of the members of the board than they could spare from higher duties, the whole was turned over to the judiciary, to be matured into a system, under which every one might know when his actions were safe and lawful." Apparently Congress agreed with Jefferson and the board that the courts should develop additional conditions for patentability. Although the Patent Act was amended, revised or codified some 50 times between 1790 and 1950, Congress steered clear of a statutory set of requirements other than the bare novelty and utility tests reformulated in Jefferson's draft of the 1793 Patent Act.\footnote{71}

The fact that Congress did not attempt to craft a uniform set of rules to cover each and every case may be thought to indicate that Congress agreed, or acquiesced to, leaving the finding of facts and the application of general rules of evolving circumstance to the courts. This situation is somewhat different in that Congress, by America Invents, is shifting the judicial function noted above to the administrative processes of the Patent and Trademark Office. Why after all these years is Congress expanding the role of the administrative agency and diminishing the role of the courts? What issues are created? And what are the elements of this vision of the future? A fair reading of the excerpt does not limit one's reading to the substantive reference regarding simply conditions of patentability, but recognizes the reference to "a system of general rules . . ."\footnote{72} In light of the partisan and interest laden contemporary legislative process, the competing interests at play assured slow progress in reconciliation then as they do now. The investment of effort in this reconciliation can be read as indicating this was not the purpose of the legislative body, that was neither equipped nor intended to make these decisions, but had "higher duties"\footnote{73} than these. It was no simple codification of case law relating to fair use in the Copyright Act of 1976 when the legislature purported to encase fair use based on the balancing elements set as forth as judicial criteria.\footnote{74} Rather, fair use was changed from a right under case law to an affirmative defense under the statute.\footnote{75} Is this to be another instance where the court is put in the position to

\footnote{71. Graham v. John Deere Co., 383 U.S. 1, 8-10 (1966) (citations omitted).} 
\footnote{72. Id. at 10.} 
\footnote{73. Id.} 
\footnote{75. Id.}
assert itself or abdicate to the legislature matters inherent to judicial function?\textsuperscript{76}

The judiciary should be the place to mature these issues, having been delegated the power in a tripartite governance structure to resolve cases and conflicts of fact and law. The judiciary has uniformly been sensitive to the delegation to Congress under Article I, Section 8, Clause 8 to implement constitutional purpose. Uniformly over the years, they have only interceded in instances of “free speech” and “due process” right to trial by jury.\textsuperscript{77} The Supreme Court recognized this in \textit{John Deere} when it noted the changes in the Patent Act from 1790 to 1950 did not alter this model of balance between the legislature, administrative agencies, and the court.\textsuperscript{78} Despite the fact that the Patent and Trademark Office has expertise in patent process, expertise in fact finding, and conflict resolution, does this assure constitutional due process of right to trial by jury? Does expertise and collateral objectives of streamlining process, reducing the costs of legal actions, and reducing “uncertainty” justify removing these matters from the courts in a system of checks and balances? Yes, appeals can be taken to the Court of Appeals, Federal Circuit, but that only offers review of the record and facts found by the Patent Trial and Appeal Board, not trial by jury to satisfy this fundamental right. This is not to impugn the integrity or good intentions of the Patent Trial and Appeal Board. Rather, it is a notation that the safeguard of due process has been removed by America Invents in several instances.

The structure of America Invents invites further constitutional concern by the alteration of time frames for appeal and “statutes of limitation,” that affect the substantive property rights of inventors. A derivation proceeding, for example, must be brought within one year.\textsuperscript{79}

\begin{quote}
§ 135. Derivation proceedings <(a) Institution of proceeding.--An applicant for patent may file a petition to institute a derivation proceeding in the Office... Any such petition may be filed only within the 1-year period beginning on the date of the first publication of a claim to an invention that is the same or substantially the same as the earlier application’s claim to the invention . . .\textsuperscript{80}
\end{quote}
The decision of the director whether to permit a derivation proceeding final and non appealable:

Whenever the Director determines that a petition filed under this subsection demonstrates that the standards for instituting a derivation proceeding are met, the Director may institute a derivation proceeding. The determination by the Director whether to institute a derivation proceeding shall be final and nonappealable.81

Appeals from decisions in many proceedings before the newly countenanced Patent Trial and Appeal Board, when permitted, may only be taken to the Court of Appeals for the Federal Circuit, which sits in review of the record created by the administrative agency, not a court of law. These instances include, but are not limited to, appeals to the Patent Trial and Appeal Board under § 141(a) relating to examinations;82 final decisions of the Patent Trial and Appeal Board in § 141(b) reexamination proceedings;83 Post Grant and Inter Partes review proceedings under §141(c);84 as well as in the instance of decisions of the Patent Trial and Appeal Board in a derivation proceeding.85

It is "incredibly" problematic that America Invents provides for final decisions affecting "property rights" without right of appeal at one extreme and the due process quandary of permitting appeal only to the Circuit Court at the other. The net effect of either or both is to thereby deny a trial by jury on issues of fact, that otherwise would have been the case if tried in a court of law.86

81. Id.
82. 125 Stat. at 314.
83. "(b) Reexaminations.--A patent owner who is dissatisfied with the final decision in an appeal of a reexamination to the Patent Trial and Appeal Board under section 134(b) may appeal the Board's decision only to the United States Court of Appeals for the Federal Circuit." 35 U.S.C.A. § 141(b) (West 2011).
84. "(c) Post-grant and inter partes reviews.--A party to an inter partes review or a post-grant review who is dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 318(a) or 328(a) (as the case may be) may appeal the Board's decision only to the United States Court of Appeals for the Federal Circuit." 35 U.S.C.A. § 141(c) (West 2011).
85. "(d) Derivation proceedings.--A party to a derivation proceeding who is dissatisfied with the final decision of the Patent Trial and Appeal Board in the proceeding may appeal the decision to the United States Court of Appeals for the Federal Circuit . . . ." 35 U.S.C.A. § 141(d) (West 2011).
86. See generally the recent decision of the Supreme Court in Kappos v. Hyatt, 132 S. Ct. 1690 (2012). Does the remand of the proceedings to the district court, along with the admonition that there is no limit on applicant's right to introduce new evidence on issues of fact before the trial court, buttress the constitutional limitation of powers of administrative agencies to usurp the functions of the court and due process rights of applicants?
D. First Inventor to File: Conformity for International Patent Protection at what Price to the Inventor and Progress? — A “Nibble” at History

The change to a modified first to file system has invited a tsunami of speculation regarding issues that range from constitutional purpose to the impact of changes in practice and the possible consequences in the market place. This section simply is intended to highlight the nature of the patent right as property and the due process implications of the changes made by America Invents. There are those that think of invention as a unique state of occurrence, a flash of genius, or inspiration that defines a single or limited number of persons as inventor. History reflects that this simply is not the case. First inventor to file recognizes the many instances of parallel independent inventive ventures in process. The standard for patent issuance used by nations throughout the world leans heavily toward recognizing the first inventor to file, rather than the first to invent as historically used in the United States. The difficulties, real and imagined, relate to the concern that patents issued in the United States would not receive the necessary protection in other nation states if not in compliance with their standards of “first to invent.” An inventor by statutory implementation of Article I, Section 8, Clause 8 has been and remains defined as: “the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention.”

If one looks to the “official” teaching of the meaning of inventor from the United States Patent and Trademark Office, one finds the following:

2137.01 Inventorship [R-3] - 2100 Patentability


90. 35 U.S.C.A. § 100(f) (West 2011).
II. AN INVENTOR MUST CONTRIBUTE TO THE CONCEPTION OF THE INVENTION

The definition for inventorship can be simply stated: "The threshold question in determining inventorship is who conceived the invention. Unless a person contributes to the conception of the invention, he is not an inventor. Insofar as defining an inventor is concerned, reduction to practice, per se, is irrelevant." One must contribute to the conception to be an inventor. "Invention requires conception." "[O]ne who suggests an idea of a result to be accomplished, rather than the means of accomplishing it, is not an coinventor."

III. AS LONG AS THE INVENTOR MAINTAINS INTELLECTUAL DOMINATION OVER MAKING THE INVENTION, IDEAS, SUGGESTIONS, AND MATERIALS MAY BE ADOPTED FROM OTHERS

In arriving at... conception [the inventor] may consider and adopt ideas and materials derived from many sources [such as] a suggestion from an employee, or hired consultant so long as he maintains intellectual domination of the work of making the invention down to the successful testing, selecting or rejecting as he goes even if such suggestion [or material] proves to be the key that unlocks his problem.

IV. THE INVENTOR IS NOT REQUIRED TO REDUCE THE INVENTION TO PRACTICE

In light of the fact that first inventor to file seeks compliance with signatory nations and the EU, it is interesting to note that the definition of inventor is somewhat comparably diffuse:

In some patent law frameworks... such as in the European Patent Convention (EPC) and its case law, no explicit, accurate definition of who exactly is an inventor is provided. The definition may slightly vary from one European country to another. Inventorship is generally not considered to be a patentability criterion under European patent law.

The constitutional issue appears to be whether a patent could properly be issued to one other than "an" inventor distinct from "the" inventor. The qualification in the legislation of requiring the person

93. For an interesting perspective on the issue, see generally Letter from Viet D. Dinh, Bancroft Attorney, to Hon. Lamar Smith, Chairman of the Committee on the Judiciary (June 20,
who files be an “inventor” in the literal sense understood for centuries, coupled with being the first “inventor” to file is anticipated to maintain the integrity of the amendment with constitutional intent.

(a) Definitions. Section 100 of title 35, United States Code, is amended by adding at the end the following:

'(A) if subparagraph (B) does not apply, the actual filing date of the patent or the application for the patent containing a claim to the invention; or

'(B) the filing date of the earliest application for which the patent or application is entitled, as to such invention, to a right of priority under section 119, 365(a), or 365(b) or to the benefit of an earlier filing date under section 120, 121, or 365(c).

'(2) The effective filing date for a claimed invention in an application for reissue or reissued patent shall be determined by deeming the claim to the invention to have been contained in the patent for which reissue was sought.'

Whether the change to “First Inventor to File” complies with the constitutional mandate might appear to be one of the foremost questions. Consistent with the thoughts of others, there is nothing to deter an interpretation that there can be more than one inventor, similar to the notion that absent copying, there can be more than one author of the same expression, other than conformity with that interpretation for over two hundred years, and the uncertainty that follows may take a decade or more to resolve. Are there reasons to move in this direction independent of conforming to treaties that the United States has entered into? Will this prove an incentive to invent? Will this encourage innovation? Will this increase the pace and number of patent


95. Folsom, supra note 26 (“(a) Unconstitutional (or not). Inventorship is a constitutional requirement. While it is a fair question whether a ‘first to file’ rule is permitted by the constitution, the form of the argument itself seems rather straightforward.”).

applications and disclosures? Will this encourage the filing of inventions that are not fully matured or nurtured before their time? Will the race to file truncate the search for the “best mode,” or the perfection of the invention? Or, will it cause filings that are less than perfect in order to assure priority that may be infirmed in function necessary to compete effectively in a global market? These are questions directed at outcomes that will only be the subject of debate and analysis for years to come.

What are some of the primary legal issues, other than constitutional compliance with first to invent that appear to be questions under the Act? Who the inventor is remains an open issue. There is always someone who will claim to be the inventor and that the party who filed copied, appropriated, or “stole” his or her invention. There, thus, remains a likelihood of an inventor challenging the prior filing of one who claims to be an inventor and protracted litigation that involves burdening the administrative and judicial systems and imposes costs and uncertainty to all parties. The necessary fact to address whether the party who filed is an inventor will require similar proofs as with other situations where one is accused of appropriation, copying, or “stealing” the work of another and representing it as his or her own. First to file may, in some minds, create certainty and diminish litigation, but it will not alter the burden of proof, or prevent protracted, expensive, and likely detrimental litigation that affects investment and utilization of the patent until resolved. Will a pattern of serial patenting of minor improvements that could have been in the original patent but for the first to file be seen?

Is there a due process question if the first inventor is perceived to have an inchoate interest that has been divested by the first to file implementation by Congress? The patent right has been recognized as an interest protected under the Takings Clause of the Constitution. First to file divests the inchoate interest of the traditional first inventor. Some may say the interest does not vest until all conditions of the statute are met, which includes the first to file requirement. This represents another unknown that will likely be the subject of litigation and analysis for years to come. What we are left with is the vagaries of derivation proceedings which may or may not satisfy the inchoate rights of the first inventor who does not timely file depending on the outcome of the

proceedings.\textsuperscript{98} The simple question is whether the Derivation proceedings as constituted protect the inventor's rights in light of the discretion accorded to the Patent Trial and Appeal Board regarding whether to initiate the proceedings, the decision then not being permitted to be appealed to the courts.\textsuperscript{99}

America Invents includes an alternative for relief beyond the Patent Trial and Appeal board for the "inventor" to enforce or secure his rights. Section 291 provides recourse to the courts in the form of a civil action for relief:

§ 291. Derived Patents

(a) IN GENERAL.--The owner of a patent may have relief by civil action against the owner of another patent that claims the same invention and has an earlier effective filing date, if the invention claimed in such other patent was derived from the inventor of the invention claimed in the patent owned by the person seeking relief under this section.\textsuperscript{100}

The first to file has an infirmity that can be enforced if the first to file invention was derived from the other inventor. To this extent, first to invent has some continued relevance and the first to file doesn't have immunity to such challenge. Recall, however, the short statute of limitations on the filing of action under section 291:

(b) FILING LIMITATION.--An action under this section may be filed only before the end of the 1-year period beginning on the date of the issuance of the first patent containing a claim to the allegedly derived invention and naming an individual alleged to have derived such invention as the inventor or joint inventor.\textsuperscript{101}

But an action under this section can only be brought within one year from the date of issuance (not the date the first inventor made the disclosure or from whom the patent was derived knows).

There is a small bit of saving grace and irony to this provision for the first inventor to file regarding disclosures made one year or less prior to filing. The statute provides that disclosure will not count as prior art made one year or less before the effective filing date by the inventor, or

\textsuperscript{98} 35 U.S.C.A. § 135(a) (West 2011) (derivation proceedings).
\textsuperscript{100} 35 U.S.C.A. § 291(a) (West 2011).
\textsuperscript{101} 35 U.S.C.A. § 291(b) (West 2011).
by someone who obtained the subject matter directly or indirectly from the inventor.\textsuperscript{102}

Also, note the right of the "other inventor" who was not the first to file, but put the subject matter of the patent to commercial prior thereto. That inventor is given under the statute a limited right to continue using it for these purposes, without being liable for infringement. It will be interesting to see what issues rise both in the legal context and marketplace.

(d) Effect of Final Decision- The final decision of the Patent Trial and Appeal Board, if adverse to claims in an application for patent, shall constitute the final refusal by the Office on those claims. The final decision of the Patent Trial and Appeal Board, if adverse to claims in a patent, shall, if no appeal or other review of the decision has been or can be taken or had, constitute cancellation of those claims, and notice of such cancellation shall be endorsed on copies of the patent distributed after such cancellation.\textsuperscript{103}

III. TAKEN AS A WHOLE: SO MANY ISSUES BIG AND SMALL, SO MANY HOPES AND THOUGHTS THAT DOT THE LANDSCAPE IN A SEARCH FOR A FUTURE FOGGED IN UNCERTAINTY.\textsuperscript{104}

There are questions and few answers. The list that follows is simply the tip of the iceberg of thoughts that emerge from reading cases,

\textsuperscript{102} 35 U.S.C.A. §102(b)(1)-(2) (West 2011).

\textsuperscript{103} 35 U.S.C.A. § 135(d) (West 2011).


After years of criticism regarding the state of U.S. patent law, the Senate on Thursday passed the America Invents Act, which is being called the most sweeping patent reform in half a century. But many intellectual property lawyers, including a prominent former judge, are taking a wait-and-see approach toward the bill. It could improve patent law in the long run, they say, but for now, uncertainty hangs over this increasingly important corner of the legal profession. "There will be heightened uncertainty for the rest of the decade," says Paul Michel, a retired judge of the U.S. Court of Appeals for the Federal Circuit, in evaluating the provisions of the new legislation. "The bill makes fundamental changes, and many sections are poorly written and ambiguous."

\textit{Id.}

In all, the act entails more than 20 new changes to settled patent law. All will require review by the courts, implementation by the Patent Office and consultation between patent holders and their counsel. If the America Invents Act actually delivers the promised 200,000 jobs, they seem likely to be jobs for patent attorneys, rather than jobs for technological innovators.

commentary, and reviewing the ontogeny of America Invents. One fully appreciates a focus on property rights and values to society as well as to individual entities and patent holders. Likewise, there is no doubt for the need to maximize harmonization and protection of these rights on a global scale. The breadth of public interest resides not only in the provisions of Article I, Section 8, Clause 8, but in the breadth of interests addressed by the Constitution, illuminated in ways by the writing of the founders in the Federalist Papers. We understand the consequences of the last great depression and the anxiety of a nation that engages in extraterritorial peace keeping. H.G. Wells reminded, among other things, that WWI was resolved by the vicissitudes of a debtor nation status in his tome, *What is Coming? A Forecast of Things after the War*.105 There is a coincidence of public interest between the asset value of intellectual property rights and the wellbeing of our nation that clearly comes within the purview of the Constitution.106 The above being said, the long-term health of this nation does, noted by President Roosevelt in his second inaugural address, lie in the creative processes and talents of this nation. The question is not necessarily a legal issue, nor a partisan issue, but singularly the issue of how this Act will enhance or deter innovation and progress and permit this nation to realize a share of the future.107

In the end, the question will be whether America Invents, under the guise of furthering the public interest, is not but another in the long line of legislation that expands private rights, minimizes perfection requirements, diminishes public rights to challenge, and removes private defenses. Is the Act consistent with constitutional purpose, progress, and the public wellbeing?108 We are a nation and generation filled with hope and promise that the future will bring more than a pocket full of mumbles.

105. WELLS, *supra* note 89.
108. Only time will answer this question, hopefully it will succeed. For some of us it is akin to the creations of the masters of fable, parable, and illusion: Humpty Dumpty, Alice in Wonderland, Through the Looking Glass, the Emperor with no clothes, or the late master of illusion and “invention.” Magic Library Houdini, MAGIC TRICKS, http://www.magictricks.com/houdini/ (last visited Feb. 22, 2012).