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Re-Discovering Article 1, Section 8 - The Formula for First-to-Invent

Edwin A. Suominen[1]

INTRODUCTION

In 1791, the earliest predecessor to the U.S. Patent Office considered adopting a first-to-file system to settle disputes between interfering patent applicants and chose not to do so.[2] In 1966, a President's Commission on the Patent System recommended adoption of a first-to-file system, and Congress rejected it after a negative reception by industry and bar associations.[3] In 1990, the World Intellectual Property Organization (WIPO) published a "basic proposal" draft treaty that would have imposed a first-to-file system on all signatories, including the United States.[4] This proposed "fundamental change" in U.S. patent law was met with active opposition, and no interested associations took a position in favor of it.[5]

Now, in 2001, the question arises yet again, as the U.S. continues to consider becoming a signatory to the latest edition of WIPO's harmonization treaty.[6] The U.S. Patent Office has requested comments on whether the U.S. should adopt a first-to-file system, which the treaty in its present form would require all signatories to do.

This article analyzes the command of Article 1, Section 8 of the U.S. Constitution that Congress may grant exclusive rights to "inventors" for their "discoveries." The conclusion of this analysis is

1 Mr. Suominen is a registered patent agent and an independent inventor with several patents and pending applications. The author is indebted to Louis J. Hoffman, Esq. for editorial assistance and support.

2 P. J. Federico, *Operation of the Patent Act of 1790*, 18 J. Pat. Off. Soc'y 237, 248 (1936).

3 Note, *First-To-File: Is American Adoption of the International Standard in Patent Law Worth the Price?*, 1988 Colum. Bus. L. Rev. 543, 544.

4 Edward G. Fiorito, *The "Basic Proposal" for Harmonization of U.S. and Worldwide Patent Laws Submitted by WIPO*, 73 JPTOS 83, 88 (1991).

5 *Id.* at 89.

6 Draft Substantive Patent Law Treaty, WIPO Doc. SCP/5/2 Prov. (Feb. 2001), available on the Internet at www. http://www.wipo.int/scp/en.

easily overlooked in the "horse trading" atmosphere of international treaty negotiations, but it is of critical importance. The U.S. should not, and must not, abandon the uniquely American, and uniquely successful, first-to-invent system of patent protection prescribed by Article 1, Section 8 and maintained for over two centuries.

Several commentators have written many practical arguments against switching to a first-to-file system,[7] and others will no doubt provide many more in response to the Office's Request for Comments. Although those arguments are certainly supportive of the Constitution's wisdom in establishing a clear mandate for a first-to-invent patent system, it is the constitutional mandate on which we focus here.

Constitutional Terms of Restriction: "Inventors" and "Discoveries"

"At the outset it must be remembered," began the Supreme Court in its seminal patent case of *Graham v. John Deere Co.*[8], "that the federal patent power stems from a specific constitutional provision which authorizes the Congress 'To promote the Progress of . . . useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries.'" In deciding the fate of three patents before it that day, the Court held that Article 1, Section 8, the Constitution's patent clause, "is both a grant of power and a limitation."[9] Thus the Court observed that the patent clause is not merely an open-ended invitation for Congress to grant whatever patents it wishes to whomever it wishes.[10]

The Constitution thus authorizes Congress to secure exclusive rights for limited times only to "inventors," and only for their "discoveries."[11] This restricted authorization was recognized by the judiciary 24 years after ratification of the Constitution. In one of the "Steamboat Cases," the New York Court of Chancery observed that "the power given to Congress to promote the progress of science and useful Arts is restricted to the rights of authors and inventors."[12] Subsequent

7 *See* Gabriel P. Katona, *First-to-File - Not in the United States*, 73 JPTOS 399 (1991); Coe A. Bloomberg, *In Defense of the First-to-Invent Rule*, 21 AIPLA Q.J. 255 (1993); *supra* note 3.

8 383 U.S. 1 (1966).

9 *Id.* at 5.

10 *See* Edward C. Walterscheid, *Disparity Between the Patent Term and the Copyright Term*, 83 JPTOS 233, 249 (2001).

11 *See* William C. Robinson, The Law of Patents for Useful Inventions 69-70 (1890) ("The subject of the exclusive right must be a writing or discovery of the person to whom the right is granted . . . as to all other matters, Congress is supreme").

12 *Livingston v. Van Ingen*, 9 Johns. 505, 564 (1812).

decisions by the U.S. Supreme Court[13] and other federal courts[14] in the early nineteenth century affirmed this view.

Who then are the "inventors" contemplated by the constitutional language as being the only recipients of exclusivity? As Samuel Johnson defined the term in the framers' era with his authoritative dictionary, and as the term is still understood today, an inventor is "one who produces something new; a devisor of something not known before."[15] Similarly, Johnson defined "To discover" as "to find things or places not known before."[16]

The plain language of the terms would thus seem to settle the issue, clearly prohibiting any first-to-file system as unconstitutionally denying actual inventors the exclusive right to their discoveries. That is not the conclusion Edward C. Walterscheid has drawn.[17] Walterscheid asserts that the constitutional language "does not preclude the granting of patent rights to one who is not the literal first inventor."[18] He bases this conclusion largely on (1) contemporaneous interpretation of the words, (2) the founders' omission of the terms "true and first" from contemporaneous English law, and (3) spotty implementation of first-to-invent statutes in the early nineteenth century.

These views cannot withstand careful examination of Supreme Court precedent and ordinary methods of constitutional interpretation.

Supreme Court Precedent on "Inventors" and "Discoveries"

In 1870 the Court discussed how the term "inventors" in the patent clause should be interpreted. The Court sustained validity of several patents by emphasizing the role of patents as "public franchises,"

13 *Shaw v. Cooper*, 32 U.S. 292, 318-19 (1833) ("This [constitutional] power was exercised by congress . . . and from an examination of their various provisions, it clearly appears, that it was the intention of the legislature, by compliance with the requisites of the [constitutional] law, to vest the exclusive right in the inventor only").

14 *Blanchard v. Sprague*, 3 Fed. Cas. 648, 650 (D. Mass. 1839) (Story, J.); *In re Kemper*, 14 Fed. Cas. 286, 287 (D.D.C. 1841) (citing Article 1, Section 8: "There it is evident that the 'discoveries,' the use of which is to be secured, are the discoveries of inventors only").

15 Samuel Johnson, A Dictionary of the English Language (1787) as quoted by A. H. Seidel, *The Constitution and a Standard of Patentability*, 48 J. Pat. Off. Soc'y 1, 13 (1966). Seidel commented, "The present day meaning . . . can be considered the same, that is to bring into being something *new* as a product of one's own contrivance" (emphasis in original).

16 *Id.* An alternate definition provided by Johnson (there are several) is "to make known; not to disguise; to reveal." It could be argued, albeit somewhat implausibly, that the framers understood this archaic definition of the term to cover the act of disclosure associated with filing an application. However, *see* Seidel *supra*: "[I]t is firmly established in the patent law that "discoveries" has a more restricted meaning, as being the activity of an inventor."

17 Edward C. Walterscheid, *Priority of Invention: How the United States Came to Have a "First-To-Invent" Patent System*, 23 AIPLA Q.J. 263, 281 (1995).

18 *Id.* at 283.

as a matter of compensation to the inventors for their labor, toil, and expense in making the inventions, and *reducing the same to practice* for the public benefit, as contemplated by the Constitution and sanctioned by the laws of Congress.[19]

It seems unlikely that the Court would have used language so tilted toward the activities of actual reduction to practice if it had considered the Constitution to contemplate "inventors" as including first filers who reduced to practice after late-filing first inventors had already undergone the "labor, toil, and expense in making the inventions."

In an 1884 copyright case, the Supreme Court offered the following dicta interpreting the patent clause in *Burrow-Giles Lithographic Co. v. Sarony*: [20]

In regard, however, to the kindred subject of patents for invention, they cannot, by law, be issued to the inventor until the novelty, the utility, and the actual discovery or invention by the claimant have been established.

The Supreme Court recognized in that case that early statutes, passed by the constitutional framers, established "almost conclusive" interpretation entitled to at least "very great weight."[21] Thus, what the first patent act of 1790 and its immediate successor of 1793 say about "inventors" and "discoveries" is critical to the analysis.

The Act of 1790 could not be more clear in its grant of exclusive protection to the first inventor. The Act begins as follows:

Be it enacted . . . that upon the petition of any person or persons . . . setting forth, that he, she, or they, *have or have invented or discovered any useful art, manufacture, engine, machine, or device, or any improvements therein not before known or used* . . . it shall be lawful to . . . cause letters patent to be made out . . . .[22]

It continues with language authorizing repeal of patents not granted in accordance with the requirements of the petition:

[I]f it shall appear that the patentee was not the first and true inventor or discoverer, judgment shall be rendered by such Court for the repeal of such patent or patents . . . .[23]

19 *Seymour v. Osborne*, 78 U.S. 516, 533 (1870) (emphasis added).
20 111 U.S. 53.
21 *Id.* at 57.
22 Patent Act of 1790, § 1, 1 Stat. 109, 109-110 (emphasis added).
23 *Id.* at § 5, 111 (emphasis added).

Finally, the Act contains language that deems issued patents or specifications as

prima facia evidence, that the said patentee or patentees was or were the *first and true inventor or inventors, discover or discovers* of the thing sospecified. . . .[24]

The Act of 1793 begins with language similar to that in the introduction of the 1790 Act:

Be it enacted . . . that when any person or persons . . . shall allege that he or they have invented any *new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture or composition of matter, not known or used before the application*, and shall present a petition ... it shall and may be lawful ... to cause letters patent to be made out . . . .[25]

It also added a requirement that

every inventor, before he can receive a patent, shall swear or affirm, that he does verily believe, *that he is the true inventor or discoverer of the art, machine or, or improvement*, for which he solicits a patent . . . .[26]

The 1793 Act contained an updated version of the 1790 Act's repeal provisions, authorizing repeal "if it shall appear, that the patentee was not the true inventor or discoverer."[27] In addition, it permitted a defendant to plead for a declaration of invalidity if, *inter alia*,

the thing, thus secured by patent, *was not originally discovered by the patentee*, but had been in use, or had been described in some public work *anterior to the supposed discovery of the patentee* . . .[28]

Finally, the 1793 Act added the first interference provision in U.S. patent law.[29]

What language could better convey the desire of the First Congress to jealously guard the exclusive right for first inventors than its repeated use of the phrase "first and true inventor"? How could the Second Congress have better affirmed that same desire than by instituting an

24 *Id.* at § 6, 111 (emphasis added).
25 Patent Act of 1793, § 1, 1 Stat. 318, 318-19 (emphasis added).
26 *Id.* at § 3, 321 (emphasis added).
27 *Id.* at § 10, 323.
28 *Id.* at § 6, 322 (emphasis added).
29 *Id.* at § 9, 322-23 (emphasis added).

interference system[30] and protecting the patent rights of the "original discoverer" against use or public work that occurred *after* his own discovery, regardless of his filing date?[31] Can there thus be any doubt about the "construction placed upon the constitution" by the "men who were contemporary with its formation" in the Patent Acts of 1790 and 1793? Under the interpretation directed by the Supreme Court's holding in *Burrow-Giles* and its required reference to the Patent Acts of 1790 and 1793, the Constitution authorizes granting of exclusive rights only to first and true inventors.

The Originalist View of "Inventors" and "Discoveries"

With the literal text and binding precedent so firmly on the side of first-to-invent, it is difficult to sustain an argument for the constitutionality of first-to-file under any theory of interpretation. The founders' "original intent" provides no consistent basis for an argument either way.

In the originalist view, the Constitution should be interpreted according to understandings made public at the time of its drafting and ratification.[32] Walterscheid's analysis appears to use this technique. An originalist analysis, however, does not provide a clear answer to the question of who are "inventors" of "discoveries," because there was no debate in the Constitutional Convention with reference to the patent clause, and no committee minutes reference it.[33] Walterscheid himself acknowledges that "no delegate left any record as to what the Convention intended 'inventors' and 'discoveries' to mean."[34]

Much of Walterscheid's analysis of the framers' understandings thus cannot help but be highly speculative. For example, he states that the constitutional language "seemed to suggest" that the exclusive right

30 Walterscheid states that was nothing in the language of Section 9 that obligated the arbitrators to award the patent to the first inventor. *See supra* note 19 at 306. But later he seems to contract this statement. *See Id.* at 318 ("Priority seems to have been generally viewed as requiring a determination as to who had invented first"). In any event, it is implausible that this omission was intended to give the arbitrators *carte blanche*. Section 9 did not recite *any* standards for the arbitrators, instead relying on the requirements set forth in the other portions of the Act for their guidance. One could just as well conclude that the arbitrators were free to award patents for inoperative or well-known devices, and such award would "be final, as far as respects the granting of the patent." 1 Stat. 318, 323. This was surely not Congress' intent, and the failure of the arbitrators to abide by it, which Walterscheid describes at length, does not lessen the precedential value of that intent under *Burrow-Giles*.

31 *See Thompson v. Haight infra* note 48.

32 Keith E. Whittington, Constitutional Interpretation 35 (1999).

33 Karl Fenning, *The Origin of the Patent and Copyright Clause of the Constitution*, 17 Geo. L. J. 109, 112 (1929).

34 Walterscheid *supra* note 17 at 281.

could be granted to other than the literal true and first inventor because there "is no reason to believe that the framers were not conversant with the English common law interpretation 'true and first inventor' to include a first importer."[35] But an equally plausible explanation, in view of Samuel Johnson's clear dictionary definition of the word "inventor,"[36] is that the framers simply chose to avoid redundancy.

As another example, Walterscheid attributes the Patent Board's decision to reject a first-to-file interference system alternately to discomfort with deciding the actual filing date of petitions that were originally filed with Congress and to political pressure from the steamboat rivals Rumsey and Fitch.[37] However, Walterscheid admits that "that the board may have interpreted 'inventor' to mean the true and first, *i.e.* original, inventor in a literal sense."[38]

Speculation could easily support an originalist view opposite Waltersheid's. For example, Thomas Jefferson was one of the members of the original Patent Board,[39] and his part in its decision to reject first-to-file could well reflect his "original intent" as one of the framers.

Another one of the framers, Madison, apparently proposed constitutional language securing "to inventors of useful machines and implements, the benefits therefore, for a limited time."[40] The thoughtful originalist might thus discern, in that framer's mind at least, an emphasis on actual reductions to practice rather than mere application filings. If Madison's proposed language had been incorporated into the ratified Constitution, the result under an originalist interpretation may well have been the restriction of patent protection only to tangible "machines and implements" that had been shown to be useful, *i.e.*, actually reduced to practice. Clearly, only a first-to-invent system would be realistic where an application filing, without more, would be insufficient to obtain a patent.

The Modernist View of "Inventors" and "Discoveries"

Some who would argue against a textualist or "original intent" interpretation of the constitutional term "Discoveries," may advocate instead that the Constitution is a "living document adaptable to new

35 *Id.*

36 Johnson *supra* note 15.

37 *Supra* note 17 at 291-92.

38 *Id.* at 293.

39 Federico *supra* note 2 at 238.

40 Fenning *supra* note 33 at 114. In attributing this language to Madison, Fenning cites a five volume *Documentary History of the Constitution of the United States Of America* published by the U.S. State Department between 1894 and 1900, and Ferrand, Records of the Constitutional Convention (1911).

In a recent speech, Sen. Birch Bayh, co-sponsor of the Bayh-Dole Act said:

> After a quarter century of what by most objective standards has been an exceptional success, the Bayh-Dole law is under increasing attack today.
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> Most of the attacks have come from individuals who have little experience with the comprehensive nature of how the law is implemented. They do not know what Bayh-Dole does and does not do, and why certain features were incorporated in the law. Equally important, these nay-sayers have no appreciation for the factors that motivated our efforts to develop this legislation in the first place. Most unfortunate of all, these modern-day experts in technology transfers apparently do not understand the basic factors on which our nation's free enterprise system is based.

THE BASIS OF THE ACT

To the extent that the Act is "an exceptional success" should be attributed to the drafter's understanding of the evolution, purpose and the intended rewards of the U.S. patent system starting with John Locke's belief that:

> A man has the right to what he hath mixed his labor with" and "whatsoever then he removes out of the state that nature has provided and left it in, he has with, and joined to it something that is his own, and thereby makes it his property"[2]

[2] Locke, J. The Second Treatise on Civil Government, 1690.

A hundred years later, the drafters of our constitution implemented these principles and intended rewards by granting to Congress the power to secure "for limited times to authors and inventors the exclusive right to their respective writings and discoveries" an incentive "to promote the progress of science and useful arts"[3].

James Madison, the primary draftsman of the Constitution, stated his unequivocal support for this provision in the Federalist:

> "The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides to both cases with the claims of individuals."[4] (emphasis added)

Abraham Lincoln fully embraced our patent system in his second lecture on *Discoveries and Inventions*:

> ...In anciently inhabited countries, the dust of ages-a real downright old-foggism-seems to settle upon, and smother the intellects and energies of man. It is in this view that I have mentioned the discovery of American as an event greatly favoring and facilitating useful discoveries and inventions.

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[3] Article I, Sec. 8 of the United States Constitution.
[4] Federalist, January 23, 1788.

> Next came the Patent laws. These began in England in 1624; and, in this Country, with the adoption of our Constitution. 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)

It is exactly this fire of interest that was eliminated in the previous patent policy system. Based upon a misguided, and arrogant, belief that extinguishing the fire of interest would better serve the public, federal agencies took inventions from their creators and gave them away freely through public dedication of non-exclusive licenses. Predictably, this system failed miserably to produce commercial products; although it had probably helped our economic competitors to easily search through our best science looking for good ideas. they could develop new & avoid products with their own patents protection.

Put simply, the drafters of the Act wanted to restore the incentives of the patent system to report invention and to attract corporate investment ~~into~~ for their development and distribution. We understood that inventions resulting from government research are conceptual in nature, and require significant investment by

the private sector to bring them into practical application. To achieve this, the Act accords the first option to all invention rights to the inventor and their assignees[5] rather than the government agency that financed their research, so together they are free to leverage their rights to their advantage in the marketplace as intended by the patent system.

The Act provides march-in rights to the government[6] as an extraordinary measure to be used only when there is overwhelming evidence to show that the public resources invested into an innovation were being wasted or abused. To the extent the government pursues such property right, it must be done under proscribed due process procedures as required by the Fifth Amendment of the Constitution[7]:

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[5] §202 BD
[6] §203 BD
[7] No person shall be deprived of life, liberty or property without due process of law. (emphasis added)

EVIDENCE OF SUCCESS

That Senator Bayh's claim that his Act is "an exceptional success" is clearly supported by at least the following:

(1) **As of 200?**, American universities have witnessed a ten-fold increase in their patents, based on an even larger increase of invention reports, creates more than 2,200 licensed companies to exploit their technology which has produced 260,000 new jobs and have contributed $40 billion annually to the American economy[8].

(2) China, Brazil, Malaysia, South Africa and India,, on their own initiative and evaluation, have determined to pursue legislation modeled after the Bayh-Dole Act[9].

(3) **Page 9 of Soderstrom ? Google other important inventions made under Bayh-Dole.**

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[8] Economist
[9] See para (2) above

(4) Permitted ~~to~~ the patenting of all inventions made un the SBIR Act of 1982 which ~~serve as protection~~ enabled the inventing small business to attract VC ~~input~~ investment for further development beyond government funding.

(5) Triggered substantial increase ~~in~~ of licensed university small business start-up around research oriented universities in Palo Alto's "silicon valley" and Boston's "route 128" and other emerging locations. F.N.

(6) Public statement from Governors' Strickland of Ohio and Doyle of Wisconsin F.N.

(7) Provided the example for the necessary exclusivity

See page 11 of Soderstrom (not complete)

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In the article in question, its authors might initially be identified as at least "nay-sayers". This is certainly supported by a number of their comments including the author's position that Bayh-Dole's "contributions to growth in U.S. innovations" is overstated (1) and failure to identify in any way how Bayh-Dole might benefit a developing country (2). But more important is the authors near complete reliance on the faulty work of the individuals the Senator alluded to above (3). But before addressing some of this work, we need to address the authors' representation of the Act itself.

The authors begin by indicating that:

> "Bayh-Dole encouraged American universities to acquire patents on inventions resulting from government-funded research and to issue exclusive licenses to private firms [5,6]... ." (emphasis added)

Not so! The Act is limited to providing a first option to title to such inventions (4) so as to be able to elect to function under Article I, Section 8, of the

Constitution (5) or not. The Act is entirely neutral as to whether universities exercise that option and if they do, how they go about licensing.

Much of the author's article is directed to non-exclusive licensing under Bayh-Dole. The record clearly shows that a large portion of executed licenses are non-exclusive rather than exclusive. In this context, the authors discuss the non-exclusive licensing of the Cohen-Bayer and Axel patents. In these situations, the involved universities had the good sense to recognize that the patents involved important processes that were useful in the possible creation of many life science inventions which are now the basis for the numerous start-ups that make up the bio tech industry. That the university is aware of the importance of pursuing non-exclusive licensing of patented process or biological material invention useful in the making of life science products is evidenced by the authors reference to "Nine Points to Consider in Licensing University Technology".

However, the authors make clear that they would not be satisfied even if the university community successfully identified all the process and biological

material inventions that should appropriately be licensed on a non-exclusive basis as they indicate such licensing is unnecessary, primarily because a cost to the licensee is attached.

This position demonstrates the authors failure to understand a primary purpose of not only Bayh-Dole but the patent system itself. In the 17th century age of enlightenment, John Locke pointed out as a natural right that "Man hath a right to what he has mixed his labors with" (6). This served as the underpinning of the British patent system that in turn served as the foundation for the founding fathers inclusion of Article I, Section 8 of the Constitution (7). (The footnote supports this.)

Bayh-Dole permits the use of non-exclusive licenses as intended by the patent system as an incentive and reward to inventors and the university licensor to remain involved in the difficult iterative process of research and development. The drafters of Bayh-Dole knew, for example, that failure to recognize inventor rights resulted in documented failures to report inventions and instances of patent protection on their own behalf. (F.N.)

Further, the complaints listed by the authors regarding the costs attached to non-exclusive licensing are no more than what would be expected from potential "buyers" when bargaining with a "seller" in an open market. Such buyers should have no expectation whatever of a free ride on the seller's effort to provide the services offered along with the expertise on its intended use. The author's description of such services by the seller as a "tax" is both derogatory and completely unjustified, as the cost involved is the seller's estimate of the cost entailed with a reasonable profit.

The authors conclude their comments regarding non-exclusive licensing by indicating that:

> "Where exclusive licenses are not required for commercialization, one may ask whether universities and public sector labs should be patenting research at all."

Clearly they believe that universities and their inventors are deserving of no consideration whatever for the efforts expended in bringing their inventions into public use. We need note here that there is nothing in Article I, Section 8 which excludes inventors and their assignees from the benefits bestowed by the patent

system notwithstanding that their invention has been partially funded with federal funds.

The author's position on exclusive licensing of government funded inventions is not explicitly discussed other than their comment that they:

> "... should not be exclusively licensed unless it is clear that doing so is necessary to promote the commercialization of that research."

We would submit that it is now exactly the reason universities chose to grant exclusive licenses rather than a non-exclusive license. However, even if the above comment is acceptance of the Bayh-Dole policy of permitting university exclusive licensing if they believe that necessary, the authors tie that decision to a government requirement that the invention so licensed be monitored to see that they are "priced fairly". This concept was unsuccessfully tried by NIH from 19_?__ to 19__?__ and abandoned after industry refusal to enter into any licensing agreements with NIH during that period (8) and is not required by Bayh-Dole. To mandate such a requirement would require amendment of both Bayh-Dole and the FTTA and would

on the basis of the NIH experience make BD, FTTA and SB1R inoperative for their intended purposes.

We now turn our attention to the author's primary reliance on the work of individuals characterized by Senator Bayh.

A hundred years later, the drafters of our constitution implemented these principles and intended rewards by granting to Congress the power to secure "for limited times to authors and inventors the exclusive right to their respective writings and discoveries" an incentive "to promote the progress of science and useful arts"[3].

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EVIDENCE OF SUCCESS

That Senator Bayh's claim that his Act is "an exceptional success" is clearly supported by at least the following:

(1) **As of 200?**, American universities have witnessed a ten-fold increase in their patents, based on an even larger increase of invention reports, creates more than 2,200 licensed companies to exploit their technology which has produced 260,000 new jobs and have contributed $40 billion annually to the American economy[8].

(2) China, Brazil, Malaysia, South Africa and India,, on their own initiative and evaluation, have determined to pursue legislation modeled after the Bayh-Dole Act[9].

(3) **Page 9 of Soderstrom ? Google other important inventions made under Bayh-Dole.**

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[8] Economist
[9] See para (2) above

(4) Permitted to patenting of all inventions made un the SB/R Act of 1982 which serve as protection to attract VC input for further development.

(5) Triggered substantial increase in small business start-up around research oriented universities in Palo Alto's "silicon valley" and Boston's "route 128". F.N.

(6) Public statement from Governors' Strickland of Ohio and Doyle of Wisconsin F.N.

See page 11 of Soderstrom (not complete)

In a recent speech

~~The opening remarks of~~ Sen. Birch Bayh, co-sponsor of the Bayh-Dole Act, ~~in a recent speech~~ said:

> After a quarter century of what by most objective standards has been an exceptional success, the Bayh-Dole law is under increasing attack today.
>
> Most of the attacks have come from individuals who have little experience with the comprehensive nature of how the law is implemented. They do not know what Bayh-Dole does and does not do, and why certain features were incorporated in the law. Equally important, these nay-sayers have no appreciation for the factors that motivated our efforts to develop this legislation in the first place. Most unfortunate of all, these modern-day experts in

Surrogates for every existing monopoly in this country

The ~~Basis of The Act~~

~~The basis~~

To the extent that the Act is "an exceptional success" ~~can~~ should be attributed to the drafter's understanding of the ~~near four hundred years~~ evolution and purpose and the intended of the U.S. patent system ~~A~~ starting with John Locke's belief that:

"a man has a right to what he hath mixed his labor with" and "Whatsoever then he removes out of the state that nature has provided and left it in, he has with, and joined to it something that is his own, and thereby makes it his property"[2] (emphasis added)

~~economic~~ ~~[illegible]~~ ~~cost benefit~~ ~~benefit ratios~~

2 Locke, The Second Treatise on Civil Government, 1640

A hundred years later the drafters of our constitution implemented ~~this~~ these principles and intended rewards by granting to Congress the power to secure "for limited times to authors and inventors the exclusive right to their respective writings and discoveries" an ~~an~~ incentive "to promote the progress of science and useful arts".[3]

(2)

James Madison, ~~supp~~ ~~in support of this provision~~ ~~Noted~~ stated his unequivable the primary draftsman of the Constitution, support for this provision in the Federalist ~~as follows:~~

"The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law.

3. Article I, section 8 of the United States Constitution.

(3)

The rights to useful inventions seem with equal reason to belong to the inventors. The public good fully coincides to both cases with the claims of individuals." Id. (emphasis added)

Abraham Lincoln fully ~~understood~~ embraced our patent system in his second Lecture on Discoveries and Inventions:

> ...In anciently inhabited countries, the dust of ages—a real downright old-foggism—seems to settle upon, and smother the intellects and energies of man. It is in this view that I have mentioned the discovery of America as an event greatly favoring and facilitating useful discoveries and inventions.
>
> Next came the Patent laws. These began in England in 1624; and, in this Country, with the adoption of our constitution. 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)

4. Federalist, January 23, 1788

Public dedication or commercial product was eliminated

It is exactly this fire of interest that ~~was missing~~ in the previous patent policy system. Based upon a misguided, and arrogant, belief that extinguishing the fire of interest would better serve the public, federal agencies took inventions from their creators and gave them away freely through non-exclusive licenses. Predictably, this system failed miserably to produce results; although it probably helped our economic competitors to easily search through our best science looking for good ideas.

(4)

to report

restore the

Put simply, the drafters of the Act wanted to ~~ensure that adequate~~ incentives were in place to facilitate invention and to attract corporate investment into their development and distribution. We understood that inventions resulting from government research are conceptual in nature, and require significant investment by the private sector to bring them into practical application. ~~This is especially the case with regard to life science inventions, the subject of the march-in~~ requests.

of the patent system

should

To achieve this, the Act ~~the first option~~ accords the first option to all INVENTION rights to the invention and their assignees, rather than the government agency that financed their research so that they are free to leverage their rights to their advantage in the marketplace as intended by the patent system.

The Act provides march-in rights to the government as an extraordinary measure

5. ~~(b)~~ SEC. 202 BD

6 SEC. 203 BD

to be used only when there is overwhelming evidence to show that the public resources invested into an innovation were being wasted on abuse. To the extent the government pursues such property rights, it must be done under prescribed due process procedures required by the fifth amendment of the Constitution. FN.

FN "No person shall be deprived of life liberty or property without due process of law."

~~Sen. Bayh's Quote~~

~~Evidence~~ Evidence of Success

That Sen. Bayh's claim that his Act is "an exceptional success" is ~~is~~ clearly supported by at least the following ~~facts~~:

an an even larger

based ~~[illegible]~~ ~~extraordinary~~ increase of invention reports

(6)

1) As of 2008 American universities have witnessed a ten-fold increase in their patents, created more than 2,200 licensed companies to exploit their technology which have produced 260,000 new jobs and have contributed $40 billion annually to the American economy.[8]

~~2) Total research and development funding has increased $6 billion in 1980 to 533 billion in 20~~

~~3)~~

2.) China, Brazil, Malaysia and South Africa and India ~~have~~ on their own initiative and evaluation have determined to pursue legislation modeled after the Bayh-Dole Act.[9]

8. Economist

Permitted small business inventions

3) Pg. 9 of Sodenstrom Google + other important ~~known~~ inventions made under BD.

~~4) Permitted~~ ~~[illegible]~~ inventions ~~made under the~~ SBIR Act of 1982

4) Permitted the patenting of all inventions made under the SBIR Act of 1982 ~~so~~ ~~[illegible]~~ which serve as ~~protection~~ to attract VC input for further development

5. Triggered substantial increase in small business start-ups around research oriented universities in Palo Alto's "silicon valley" and Boston's "route 128". F.N.

6. Public statements from Governors' Strickland of Ohio and Doyle of Wisconsin F.N.

See pg. 11 of Sodenstrom.

(Not complete)