Secrets, Secrets Are No Fun! Balancing Patent Law & Trade Secret Law Under the America Invents Act

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INTRODUCTION

In 1943, John F. Meduna was issued a patent for a process that improved on the application of spray metals to metal surfaces.¹ Meduna had invented and patented a process that expanded the art of metallizing. Before the invention of this process, old machine parts made of hardened metals were destined for the scrap heap. Meduna’s process created a way to rebuild and repurpose these materials. He did this by physically altering the surface of the hardened metal, allowing a machine to selectively spray molten metals onto the newly processed surface to rebuild the parts.² Beginning in March 1940, Meduna used this process on thirty-six separate projects to generate $1,100 in commercial revenue.³

In April 1940, before Meduna had sought a patent for his invention, an executive from Kenyon Bearing & Auto Parts Co. (“Kenyon Bearing”) approached Meduna and offered him a contract under which Meduna would apply for a patent and then give Kenyon Bearing an exclusive license. The terms were, apparently, unsatisfactory to Meduna, who rejected the offered contract.⁴ Two years later, Meduna accepted a contract with Metallizing Engineering Co. (“Metallizing Engineering”) that led to the eventual filing of Meduna’s patent and the subsequent assignment of rights to Metallizing Engineering. Meduna’s patent was filed on August 6, 1942.

Eventually, both Metallizing Engineering and Kenyon Bearing developed machines capable of carrying out the patented process on hardened metals. This led to extensive

¹ Application of Spray Metals to Metal Surfaces, U.S. Patent No. 22,397, at 2 (filed Aug. 6, 1942) (issued Nov. 30, 1943) (describing a process for “so conditioning a metal surface that the same is, as a rule, capable of bonding thereto applied spray metal to a higher degree than is normally procurable with hitherto known practices.”).
² Before Meduna, the state of the art was such that only softer metals could be made susceptible to metallizing through sufficient cleansing and subsequent roughening via sandblasting. See Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 62 F. Supp. 42, 43–44 (D. Conn. 1945), rev’d, 153 F.2d 516 (2d Cir. 1946).
³ Id. at 46.
⁴ See Id.
commercial exploitation by both companies. Having secured Meduna’s patent rights, Metallizing Engineering filed a patent infringement suit against Kenyon Bearing.  

At the Connecticut district court, Kenyon Bearing raised as defenses the “lack of patentable invention, noninfringement, public prior uses by Meduna, the inventor, and by others, abandonment, and ambiguity in the specifications.” On appeal, however, Judge Learned Hand wrote for the Second Circuit, stating that “[t]he only question which we find necessary to decide is as to Meduna’s public use of the patented process more than one year before August 6, 1942.”

Meduna first received compensation for use of the process in March 1940. He filed for a patent on August 6, 1942. The critical date, the date one year before the filing of the patent, is therefore August 6, 1941. According to the patent law, if an item is on sale, in a publication, or in the public or commercial use prior to this critical date, an inventor is not entitled to a patent.  

Unfortunately for Meduna and Metallizing Engineering Co., Judge Hand held that even though Meduna’s use was “not public but secret,” when one makes “use of his secret to gain a competitive advantage over others; he . . . extend[s] the period of his monopoly.” Thus, “it is a condition upon an inventor’s right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy, or legal monopoly.”

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5 Id. at 47.
6 Id. at 43.
7 Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 517 (2d Cir. 1946).
8 Although codified at the time as 35 U.S.C. § 31 (prohibiting the issue of a patent when the invention has been ‘in public use or on sale in this country for more than one year prior to’ the application) (repealed 19XX), this requirement is currently embodied in 35 U.S.C. § 102(b) (2006), which reads:
   A person shall be entitled to a patent unless--
   (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . .
9 Metallizing Eng’g, 153 F.2d at 518.
10 Metallizing Eng’g, 153 F.2d at 520.
11 Id.
This Note seeks to understand the tension between trade secrecy law and patent law pointed out by Judge Hand. Further, this Note argues that the recently enacted America Invents Act\(^\text{12}\) (“AIA”) overrules the holding from *Metallizing Engineering* that secret prior commercial use by an inventor before the critical date renders an invention unpatentable.

Part I discusses the different incentive structures behind patents and trade secrets. Patent law requires that an invention achieve certain higher standards than trade secret law; and in doing so provides incentivizes for a different sort of invention than trade secret law. For commercial uses that are capable of truly secret exploitation, the protections of trade secret law are often adequate so long as the inventor believes the invention will remain secret in spite of the commercialization.

Part II discusses how the pre-AIA Patent Act conceives of secret prior art and the requirements of novelty and nonobviousness. Courts have generally upheld the holding in *Metallizing Engineering* by interpreting the prior art provisions in the pre-AIA Patent Act to make ineligible for patenting any invention that is commercially exploited in secret before the critical date. However, while the courts are entrusted with the interpretation of the statute, the decision as to what constitutes prior art is a policy matter determined by the legislature.

Part III discusses two scenarios: (a) an inventor keeps an invention secret for a period of time and then seeks a patent, and (b) two people invent the same thing but one keeps it secret and the other applies for a patent. These scenarios are analyzed under the patent law both before and after the passage of AIA.

Part IV examines the text and legislative history of the America Invents Act. Both tools of statutory interpretation show that the new Act is intended to change our approach to treating

prior secret uses as prior art. Although the textual reading is inherently ambiguous, statements in the legislative history indicate that the change in statutory language is intended to affect a change in the treatment of secret prior commercial uses in the determination of patent eligibility.

Part V discusses the public policy arguments for and against treating prior secret uses as prior art. Patent law strives to (1) incentivize invention, (2) incentivize disclosure, (3) facilitate dissemination and commercialization, and (4) distribute rewards to those deserving of the legal monopoly thereby granted. Each of these considerations further complicates how the law ought to be applied by the judiciary in the two scenarios presented in Part III.

I. PATENT LAW AND TRADE SECRET LAW AS INCENTIVES

Two things appear certain about John Meduna’s motivation for inventing the metallizing process discussed above. First, he wanted to make money. His immediate and persistent commercial exploitation of the invented process combined with his negotiations with Kenyon Bearing and Metallizing Engineering are evidence enough of his intent to earn a profit on his ingenuity.\(^\text{13}\) Second, he wanted to prevent others from practicing his invention. Meduna’s initial negotiations with and later infringement action against Kenyon Bearing demonstrate his desire to maintain exclusive control over the process. Likely, this was so as to better effectuate his primary goal of earning a profit.

Eventually, Meduna sought the protection of the patent system. Before that, however, as Judge Hand noted, he had the option of “content[ing] himself with . . . secrecy . . .”\(^\text{14}\) This

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\(^{13}\) Indeed, he sought the advise of an engineer on the potential value of his invention that eventually led to the impermissible commercial exploitation before the critical date. The engineer had told Meduna “his process would indeed be valuable if it served to produce a satisfactory bond but advised him to test it out thoroughly in actual service before attempting to patent it.” Metallizing Engr. Co. v. Kenyon Bearing & Auto Parts Co., 62 F. Supp. 42, 46 (D. Conn. 1945).

\(^{14}\) Metallizing Eng’g, 153 F.2d at 520.
section aims to understand the differences between the incentive structures created by trade secret law on the one hand and patent law on the other. Although these incentives are generalizable to all inventions, this Note seeks to understand the incentives to invent technologies that can be exploited in secret.

a. **PATENTS AS INCENTIVE TO INVENT NON-INFORMING PRODUCTS**

Patents require disclosure of the inventive idea, but grant an exclusive right to the technology for twenty years. Patents “refer[] to a legal right given by the sovereign government to control the utilization of an invention.”  

Because invention requires investment in the form of research and development, one conventional justification of patent law centers around the idea that such investments are encouraged by the granting to inventors of time-limited monopolies on the invention during which they may seek to recoup the significant upfront costs they have expended.  

“The grant of a patent, by awarding exclusive rights for a limited period to the fruits of the labors of imaginative thinking, [give] encouragement and incentive to undergo the dogged, costly labor, the discouragements and disappointments that attend creative effort.”  

It is the promise of the economic reward of a patent, under this theory, that motivates invention.

Undoubtedly some inventors are unmoved by the prospect of economic reward. They are motivated by some autonomous impulse rather than induced by the reward of a patent.

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15 MOY'S WALKER ON PATENTS § 1:1 (4th ed.).
16 See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974) (“The stated objective of the Constitution in granting the power to Congress to legislate in the area of intellectual property is to ‘promote the Progress of Science and useful Arts.’ The patent laws promote this progress by offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research, and development.”).
18 But see Jeremy Phillips, Patents and Incentives to Invent, 8 ENDEAVOUR 90, 90, available at http://www.sciencedirect.com/science/article/pii/0160932784900449 (arguing that the fact “[t]hat a causal connection between the hope of a patent grant and the act of invention should be presumed is itself remarkable.”).
19 See Arnold Plant, The Economic Theory Concerning Patents for Inventions, 1 ECONOMICA 30, 33 (1934) (noting the difference between “autonomous” invention where “inventing . . . is a necessity in itself” and “induced” invention which occur “in response to any environmental impulse”).

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Regardless of the actual prominence of economic incentive to invention, the theory of patents as inducing invention remains doctrinally significant.\textsuperscript{20} This theory of patents as incentive to innovate assumes that there are innovations that would not come to fruition but for the reward of a time-limited monopoly.\textsuperscript{21} Further, this theory assumes that the sales that follow from the invention are necessary to recoup or redouble the monetary investment in research and development that led the inventor to innovate in the first place.\textsuperscript{22}

\textit{Metallizing Engineering} represents a specific instance of a general phenomenon in invention: namely, the invention of products or processes that are capable of secret exploitation. When the end product of such an invention is eventually sold or otherwise exposed to the public, the relevant inventive product or process remains unknown and, in some cases, unknowable to the public. Many such cases have shaped the evolution of patent law.\textsuperscript{23}

When an inventor faces a world of potentially invalidating prior art that includes technologies subject to secret exploitation, the certainty of the eventual issuance of a valid patent

\begin{itemize}
\item \textsuperscript{20} See, e.g., Graham v. John Deere Co., 383 U.S. 1, 10-11 (1966) (“[T]he underlying policy of the patent system [was] that ‘the things which are worth to the public the 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.”).
\item \textsuperscript{21} See id. at 34 (arguing that “[i]t will probably be generally agreed that the number of ‘involuntary inventors’ whose output is completely unaffected by economic conditions is at least as small as that of artists who work without regard to the saleability of their output.”).
\item \textsuperscript{22} But see Katherine Strandburg, \textit{Users as Innovators: Implications for Patent Doctrine}, 79 U. Colo. L. Rev. 467, 471 (2008) (noting that “[u]ser innovation (and other non-sales-motivated production of technological advance) challenges this picture because user innovators do not need the prospect of sales to motivate them to invent.”).
\item \textsuperscript{23} See, e.g., Egbert v. Lippmann, 104 U.S. 333, 336 (1881) (involving a patent on an improvement for a corset-spring that was “only capable of being used [where it could not be seen or observed by the public eye.]”); Hall v. Macneale, 107 U.S. 90 (1883) (involving a patent for a burglar-proof safe, where the improvement in question was not clearly visible to those using the new feature); Lockwood v. Am. Airlines, Inc., 107 F.3d 1565 (Fed. Cir. 1997) (holding that a non-informing, non-enabling airline reservation software system that was protected by trade secret law constituted prior art against a later filed patent since the features of the invention were known to the general public); State Indus., Inc. v. Rheem Mfg. Co., 223 USPQ 305, 316-17 (1984) (“A prior use is sufficient to anticipate a patent if it involves work done openly and in the ordinary course of business activities without any deliberate attempt at concealment or effort to exclude the public, even though no deliberate act was taken to bring the work to the attention of the public at large, ... and even though the invention may be of a nature that it cannot be seen or observed by the public eye.”), aff'd in part & rev'd in part, 769 F.2d 762, 227 USPQ 375 (Fed. Cir. 1985).
\end{itemize}
wanes—the inventor cannot, by any reasonable means, discover the existence of this secret prior art. Thus, for products or processes that are capable of such secret exploitation, an inventor seeking the protection of the patent law must factor in the risk that the invention is already being practiced.

The power of the economic incentive theory to patents hinges on the certainty with which the inventor is able to predict that patent law will indeed provide the reward sought. If patent law is the driving force for innovation for at least some inventors, then it follows that this incentive is strengthened to the degree that an inventor may rely on the eventual issuance of the patent pursued. Therefore, if the system is overly fraught with uncertainty, the incentive provided by the promise of monopoly becomes attenuated and does not properly incentivize invention.\(^\text{24}\) If uncertainty in the eventual issuance of a valid patent correlates with a weaker incentive to invent, then including secret products and processes in the prior art will lead to fewer inventions.

For inventions that are capable of commercial exploitation, it is clear that the uncertainty of issuance increases if secret uses are counted as invalidating prior art. If the inducement to innovate derived from patent law is diminished, or even nonexistent, then perhaps the patent system is not the proper intellectual property regime for such inventions. When an inventor believes that commercial exploitation of her invention will not expose the technology to her competitors (for at least twenty years), then she will likely opt for trade secrecy to protect her intellectual property.

\(^\text{24}\) This is not to argue that the bar for patenting should, therefore, be lowered to the point where every patent filed is guaranteed to issue. While this would eliminate uncertainty, it would clearly make a patent too easy to get. This would lead to a failure to incentivize the creation of larger, more pioneering invention. The optimal level of inventiveness that the patent law ought to require is an issue beyond the scope of this paper. Instead, this paper seeks to argue that any uncertainty in the process of attaining a patent undercuts its incentive power. Thus, the inclusion in the prior art secret prior commercial exploitations increases uncertainty and erodes the incentive power of the patent system.
b. TRADE SECRET LAW AS INCENTIVE TO INVENT NON-INFORMING PRODUCTS

Patent protection guarantees exclusive rights to a technology for twenty years, but requires disclosure of the inventive idea. For secretly exploitable technologies, this may be non-ideal. Trade secrecy, on the other hand, does not require disclosure of the inventive idea and lasts indefinitely. Unlike patent protection, however, the trade secrecy protection can be lost by independent invention or reverse engineering by others.

An understanding of trade secret law should begin with § 757 of the Restatement of Torts.\(^\text{25}\) The most oft-quoted\(^\text{26}\) definition of “trade secret” is there put forth:

\textit{Definition of a Trade Secret.} A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers.\(^\text{27}\)

Trade secret law allows for the protection of some items that are also patent eligible (processes of manufacturing, chemical formulas, etc.) and some items that are not (a list of customers or a mere pattern for a machine).

Similarly to patent law, trade secret law requires a finding of novelty, though to a different degree. The difference in the novelty standard for patent law and trade secret law derives from the fact that patents protect against independent invention by others while trade secret law does not. For trade secret law, the “formula, pattern, device or compilation of

\(^{25}\)“The early trade secret decisions demonstrate that a practical definition of a ‘trade secret,’ and a comprehensive delineation of trade secret concepts, were developing slowly and haphazardly. The common law stood in this rather uncertain state when the Restatement, Torts was published in 1939. The Restatement quickly became the major focus of attention in trade secret cases, and caused a coalescence of common law trade secret concepts.” \textit{1 Melvin F. Jager, Trade Secrets Law} § 3:1.

\(^{26}\)\textit{1 Melvin F. Jager, Trade Secrets Law} § 3:2.

\(^{27}\)\textit{Restatement (First) of Torts} § 757 cmt. b (1939).
information” that is the subject of the protection must not be already known to the public.\(^{28}\) The novelty requirement for trade secret law is laxer than its patent law equivalent and is “synonymous with the concepts of secrecy and value.”\(^{29}\) A lower standard of novelty is appropriate for trade secret law because it offers a lower degree of protection (i.e., it does not protect against unlicensed use of the invention by the independent invention of another). For patent protection, the requirements of novelty and invention “are essential . . . because a patent protects against unlicensed use of the patented device or process even by one who discovers it properly through independent research.”\(^{30}\) Patent law and trade secret law are designed to encourage different sorts of contributions.

Patent law’s stricter novelty requirement and stronger protections encourage inventions of a grander sort than trade secret law. When an inventor is incentivized to pursue a patent monopoly, a strong form of intellectual property is given as a reward for the invention. When an inventor is incentivized to pursue trade secret law, a weaker form of intellectual property is given to encourage the development of secret processes or devices.\(^{31}\) Indeed, trade secrets are sometimes thought of as ancillary to patent protection. “If patents cover the basic framework of the technology, then less important but nevertheless costly and valuable information can be protected by trade secrets but exchanged and disclosed within the protective framework of the patents.”\(^{32}\) In this way, trade secrets cover the interstitial aspects of patented invention, thus requiring a weaker form of protection.

\(^{28}\) “Novelty is only required of a trade secret to the extent necessary to show that the alleged secret is not a matter of public knowledge.” Anaconda Co. v. Metric Tool & Die Co., 485 F. Supp. 410, 422 (E.D. Pa. 1980).

\(^{29}\) RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. f (1995).

\(^{30}\) RESTATEMENT (FIRST) OF TORTS § 757 cmt. b (1939).

\(^{31}\) Id.

Aside from lacking the patent law’s protection against subsequent, independent invention by others, trade secret law fails to protect against reverse engineering. Indeed, “trade secret law does not forbid the discovery of the trade secret by fair and honest means, e.g., independent creation or reverse engineering, [where] patent law operates ‘against the world,’ forbidding any use of the invention for whatever purpose for a significant length of time.”

The susceptibility of trade secrets to reverse engineering is so fundamental as to be definitional. In *United Steelworkers of Am., AFL-CIO-CLC v. Auchter*, the Third Circuit judge found the Secretary of Labor’s definition of trade secret invalid because it did not exempt from trade secret law information readily discoverable by means of reverse engineering.

Patent law and trade secret law provide different incentives for innovators, though both lead invention capable of secret exploitation.

II. PATENT LAW AND PRIOR ART

Patents are awarded for inventions that “promote the progress of science and useful arts.” Part I discussed how patent and trade secret law provide different incentives to invent technologies capable of secret exploitation. The higher threshold requirements for patent rights is accompanied by a higher degree of protection from potential third-party infringement, especially

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33 “Matters which are fully disclosed by a marketed product and are susceptible to “reverse engineering”—*i.e.*, starting with the known product and working backward to divine the process which aided in its manufacture—cannot be protected as trade secrets.” SI Handling Sys., Inc. v. Heisley, 753 F.2d 1244, 1255 (3d Cir. 1985) (citation omitted).


35 “The definition of trade secrets, which is broader than the protection afforded trade secrets by state law, is invalid, and the Secretary will be directed to reconsider a trade secret definition which will not include chemical identity information that is readily discoverable through reverse engineering.” *United Steelworkers of Am., AFL-CIO-CLC v. Auchter*, 763 F.2d 728, 743 (3d Cir. 1985).

36 “Trade secret law and patent law have co-existed in this country for over one hundred years. Each has its particular role to play, and the operation of one does not take away from the need for the other.” *Kewanee, supra* note 34, at 493.

37 U.S. CONST. art. I, § 8, cl. 8.
in the form of reverse engineering and subsequent, independent invention. This section seeks to explore the patentability requirements of the law before the enactment of the AIA.

When an individual invents with the intention of seeking patent protection, she must sufficiently demarcate her invention from the world of all previous inventions along the dimensions of novelty\(^\text{38}\) and nonobviousness\(^\text{39}\) such that an agent of the United States Patent and Trademark Office (PTO) agrees that her invention is patent worthy. If the PTO agent is unconvinced of the patentability of the claimed invention, then the inventor either forfeits entirely the benefits of patent protection or engages in expensive litigation to prove the patentability of her creation in spite of the agent’s view. The agent’s opinion, of course, must be formed relative to some agreed upon set of prior invention (the set of preexisting knowledge and technology that is relevant)—deemed “prior art.”\(^\text{40}\)

The legislature and judiciary have a choice to make about how to define this set of prior art.\(^\text{41}\) The decision regarding what to include and what to exclude from the prior art is a policy

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\(^{38}\) To satisfy the novelty requirement, an invention must not be “known or used by others in this country, or patented or described in a printed publication in this or a foreign country before the invention thereof by the applicant for patent.” 35 U.S.C. § 102 (2006).

\(^{39}\) An invention is not patentable because obvious if the “differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103 (2006).

\(^{40}\) See In re Winslow, 365 F.2d 1017, 1020 (1966) (Rich, J.) (holding that for obviousness analyses, courts ought to “picture the inventor as working in his shop with the prior art references—which he is presumed to know—hanging on the walls around him”). Importantly, the art on the walls is presumed only to be art in the pertinent field of invention and the presumed inventor is a hypothetical person skilled in the art, not the actual inventor. See Kimberly-Clark Corp. v. Johnson & Johnson, 745 F.2d 1437, 1454 (Fed. Cir. 1984) (Rich, J.) (discussing that in § 103 prior art analyses, there is “no need to presume that the inventor knows anything about the prior art.”); Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc., 807 F.2d 955, 962 (Fed. Cir. 1986) (“The person of ordinary skill is a hypothetical person who is presumed to be aware of all the pertinent prior art”). But see Michael Ebert, Superperson and the Prior Art, 67 J. PAT. OFF. SOC’Y 657 (1985) (criticizing this standard as insensitive to the actual cognitive limitations of actual inventors).

\(^{41}\) This choice is not one the courts and legislature make together. The legislature makes the policy decision and the courts fill in the gaps. See The Honorable Kathleen M. O’Malley, An Expanded “Slim Volume” on the Limited Role of Courts in Shaping Patent Policy, 22 Fed. Civ. B.J. 91, 93 (2012) (“The limitation on a court's policy-making role is both a function of how judges think—how they approach the decisional process—and the fact that, in the area of
choice made in the first instance by the legislature in enacting the patent law. The relevant question is whether determinations of novelty and nonobviousness should be made relative to every thought transcribed, uttered, or dreamt in the whole history of human cogitation. Or, more likely, should the legislature attempt to filter this unwieldy set by imposing some limits on the consideration of prior art for patentability purposes? Furthermore, if and when such limits are imposed, what should they look like? In fact, Congress and the courts have defined the world of prior art for the purposes of novelty and nonobviousness. These limitations are embodied in 35 U.S.C. §§ 102-03 and in judicial opinions defining the “scope and content of the prior art.”

The legislature strikes the balances between the social and economic costs and benefits of patenting. The costs are the opportunity costs of granting monopoly rights to a single individual on a particular technology. When a patent is granted society loses the benefit of wide dissemination of the patented technology for the term of the patent. The benefits are greater
incentives to invent and, therefore, more inventions. Part I discussed how patent law and trade secret law incentivize invention at different levels by offering different levels of protection. For the patent system, drawing the line between patentable and unpatentable subject matter ought to take into account the incentive nature of patenting. That is:

Ideally, at least from the point of view of “promoting the progress of the useful arts,” the line between patentable and unpatentable subject matter would be drawn based at least in part on the likelihood that a particular invention or discovery would be made without the need for a patent incentive. The novelty and non-obviousness requirements police this boundary in a quantitative sense—they preclude patents on inventions that are not “large enough” to require a patent incentive. A more expansive world of prior art for purposes of novelty and nonobviousness means fewer patents granted, and vice versa. Deciding on the appropriate balance is a policy decision, and is the duty of the legislature. Balancing the social costs and benefits of patenting so as to optimally incentivize inventions that are “large enough” thus requires the legislature to pass laws that contemplate the scope and contents of the prior art.

Determining the scope and contents of the prior art is, in some instances, simple. *Kewanee Oil* announced the policy embodied in the federal patent laws “that matter once in the public domain must remain in the public domain.” Prior granted patents, publications in journals in the field of invention, and well-known uses, for example, are things obviously and already in the public domain and thus constitute the prior art. However, one may intuit that

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46 There are, of course, other benefits to having a strong patent system. These include the incentive to invent, an incentive to disclose the invention, the facilitation of commercialization and dissemination of products, and the distribution of just rewards. *See infra* Part IV.
48 Although to the extent that the legislative intent remains ambiguous, the judiciary is relied upon to interpret the statutory text and fill the gaps—to act as the faithful agents of Congressional intent. *See, e.g.*, United States v. Klinger, 199 F.2d 645, 648 (2d Cir. 1952) (Hand, J.) (“Flinch as we may, what we do, and must do, is to project ourselves, as best we can, into the position of those who uttered the words, and to impute to them how they would have dealt with the concrete occasion.”), aff’d by an equally divided court, 345 U.S. 979 (1953).
certain matters, even though technically in the public domain, ought not to count as prior art—for example, publications in foreign languages or well-known uses in foreign countries. Such documents and uses are not in the American public domain, after all, and one could reasonably assert that they ought not to have patent defeating effect in the American patent system. Ultimately, these are matters for debate that the legislature and judiciary have the duty to resolve through positive legislation.

When and why the federal patent law includes or excludes secretly exploited inventions in the scope of prior art is central to this Note. In Metallizing Engineering, Judge Hand ruled that Meduna’s secret commercial exploitation placed his invention into the public domain and constituted a prior use sufficient to invalidate his otherwise worthy patent. But classification of secret prior commercial use as public is not a necessary conclusion, but rather one that reflects legislative intent and judicial interpretation. Part III will discuss the matter of secret invention and how the legislature and courts seek to define the realm of applicable prior art so as to strike the optimal balance between the social costs and harms of patenting.

III. SECRET INVENTIONS

Trade secret law and patent law provide incentives for invention in different ways. Patent law’s higher threshold for issuing protection is accompanied with a higher degree of protection. The degree of differentiation that an invention must demonstrate on novelty and obviousness grounds is itself a policy decision that seeks to optimize the social efficiency of patents given the costs and benefits that accrue to society when a patent issues.
Secret prior art is a subset of the prior art used in patent eligibility decisionmaking. Secret prior art is a concept aptly named: it is art that is unknowable by virtue of having been kept secret by another, prior inventor. Some have argued that such prior art should not have a patent defeating effect. Some judges have expressed reluctance to deny a patent to an independent inventor when the inventor’s work is an obvious modification of a secret prior invention. If, after all, an inventor independently creates a novel and nonobvious process or product, then she is a true inventor and is a prime candidate for receiving patent protection for her efforts. Whether and to what extent the patent law incorporates secret prior use into novelty and obviousness analyses alters the incentive structure for pursuing either trade secret law or patent protection.

Patent law in the United States before the AIA created two forms of secret prior art. The first is derived from § 102(e) and the second from § 102(g). Section 102(e) deals with a

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50 But see Harold C. Wegner, Patent Law Simplification and the Geneva Patent Convention, 14 AM. INT’L. PROP. J. 154, 176 (1986) (“‘Secret’ prior art is a contradiction in terms. Prior ‘art’ should refer to the known (or at least knowable) state of the art at the time the invention is made: at the time of the invention, was the sum total of knowledge from public use, printed publications, and patents then available such that the claimed invention would have been at that time obvious to the worker with ordinary skill in the art? It stretches the bounds of credibility to say that the level of skill in the art for determining obviousness may include a secret disclosure in a foreign patent application not even yet filed in the United States.”).

51 See Paul W. Leuzzi, A Re-Evaluation of the Use of 35 U.S.C. 102(e), Secret Prior Art, In Obviousness Determinations, 29 IDEA 167, 173 (1988) (arguing that an obviousness rejection relying on § 102(e) secret prior art is an illogical result for which the courts have never provided a reasonable justification. “Clearly, the courts have employed a fiction that jeopardizes and potentially robs well intentioned inventors of their patent rights when secret prior art is employed in an obviousness determination.”).

52 See In re Clemens, 622 F.2d 1029, 1040 (C.C.P.A. 1980) (stating in dicta that “where this other invention is unknown to both the applicant and the art at the time the applicant makes his invention, treating it as 35 U.S.C. § 103 prior art would establish a standard for patentability in which an applicant's contribution would be measured against secret prior art. Such a standard would be detrimental to the innovative spirit the patent laws are intended to kindle.”).

53 35 USC §§ 102(e) (2006) states:
“A person shall be entitled to a patent unless—(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent . . .

54 35 USC §§ 102(g) (2006) states:
“A person shall be entitled to a patent unless—(g) (1) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in section 104, that before such person's invention thereof the invention was made by such other inventor and not
problem raised by the fact that patent applications are secret for at least the first eighteen months of the examination process. This unavoidable delay creates problematic situations. For instance, if two inventors file for the same patent within eighteen months of each other, the second inventor will have no way of searching for or otherwise encountering the earlier filed patent.\textsuperscript{55}

Secret prior art in the form of co-pending patent applications is outside the scope of this paper.

Section 102(g) prior art is a necessary consequence of a system that recognizes the right of the first inventor as superior to that of all subsequent inventors. The Section is divisible into two categories: art produced by third parties (“secret prior invention by others”) and art produced by the inventor herself (“self-defeating secret prior invention”).\textsuperscript{56}

The following is graphical representation of this confusing taxonomy:

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\textsuperscript{55} Section 102(e) was codified in 1952 after and because of Alexander Milburn Co. v. Davis-Bournonville Co. 270 U.S. 390, 401 (1926) (holding that a patent application pending before the PTO is prior art for novelty purposes even though unpublished and not yet granted and that a second inventor should not be allowed “to profit by the delay [of the Patent Office] and make himself out to be the first inventor when he was not so in fact.”). \textit{But see} Leuzzi, \textit{supra} note 51, at 170 (criticizing the Milburn rationale as a “fiction that finds no basis in fact); Wegner, \textit{supra} note 50, at 176 (calling secret prior art a “contradiction in terms”).

\textsuperscript{56} Section 102(g) was first held to be prior art for obviousness analyses in \textit{In re Bass}, 474 F.2d 1276, 1292 (C.C.P.A. 1973) (Rich, J.) (“The principal opinion takes the position that the term ‘prior art’ as it is used in 35 U.S.C. § 103 should include all inventions which were made in this country before an applicant or patentee made his invention, regardless of when those inventions are made public or patent applications on them are filed, so long as those inventions are found not to have been abandoned, suppressed or concealed.”).
Here, “Old” represents the effect of the indicated secret prior art type on a patent application under the law before the passage of the AIA, and “New” indicates the effect afterwards.\(^57\)

There are two scenarios this Note seeks to evaluate. The first is when two people invent the same thing but one opts for the protection of trade secret law and the other for patent protection. This shall be referred to as “secret prior invention by others.” The second is when an inventor keeps an invention secret for a period of time and then seeks a patent. This shall be referred to as “self-defeating secret prior invention.” These two scenarios map onto the categories of § 102(g) prior art “by third parties” and “by self”, respectively.

a. SECRET PRIOR INVENTION BY OTHERS

In the following discussion, it is useful to refer to a hypothetical scenario.\(^58\) Imagine an individual who develops a process and decides to keep it secret. She at once begins to use it

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\(^57\) NB: The entries in “new” are speculative. This Note intends to argue for their correctness.

\(^58\) In 1978 and 1979, Karl F. Jorda and Frank E. Robbins engaged in a number of discussions in several cities before local patent law associations. They debated “the respective rights of the first inventor, who makes commercial use of his invention while maintaining it in complete secret law, as against a second inventor who subsequently makes the same invention and then, in good faith, files a patent application and obtains a patent.” The following hypothetical is
commercially, and selling the product thereby produced. The public has no means to reverse
engineer the product or otherwise learn of the secret process that produces it. Some time later, a
second actor invents the same process. This second inventor files and obtains a patent while the
first inventor never does. The second inventor then sues the first inventor for patent
infringement.

There are four potential outcomes of this scenario. First, the prior secret use of the first
inventor may make the patent of the second inventor invalid. Second, both parties have rights,
and so the validity of the patent of the second inventor depends on a finding that the first
inventor “suppressed or concealed” the invention. Third, the first inventor maintains a personal
right to continue use of his trade secret, but the patent is enforceable against all others. Fourth,
the second inventor’s patent is enforceable against all users, and the trade secret user must obtain
a license to continue practicing the invention.60

In *Gillman v. Stern*,61 Judge Learned Hand encountered a situation identical to the
hypothetical posed above. The invention was kept completely secret and, therefore, could not be
used to invalidate the patent of the second inventor. The court held that the invention had been
“concealed” by the secret user—reaching the second potential outcome from above. Judge
Markey in *W.L. Gore & Associates Inc. v. Garlock, Inc.*63 further confirmed this presumption
against finding that secret prior use by another is sufficient to defeat the patent of a subsequent

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59 35 U.S.C. 102(g).
60 For a more detailed discussion of these scenarios, see Robbins, *supra* note 58.
61 Gillman v. Stern, 114 F.2d 28 (2nd Cir.1940).
62 35 U.S.C. 102(g).
In *Gore*, the accused patent infringer argued that a third party’s (Budd’s) use of a secret process in the production of tape, which was subsequently sold, invalidated Gore’s patent to that same process. However, Judge Markey disagreed. He reasoned that “[i]f Budd offered and sold anything, it was only tape, not whatever process was used in producing it. Neither party contends, and there was no evidence, that the public could learn the claimed process by examining the tape.”

Thus, the completely secret use of a process does not constitute prior art against a subsequent, independent inventor even when that process is used to make a commercial product.

In deciding *Gillman*, the court made an important distinction between a completely secret use of an invention (e.g. the use of a process that aids in the production of a product) and a public, but non-informing use of an invention (e.g. the product is in the public use, but does not reveal the invention). In the former case, the invention is not available to the public for inspection and the patent of the second inventor will prevail. In the latter case, the invention is available to the public for inspection and the non-informing public use of the invention will invalidate the patent of the second inventor. “Thus, an invention whose impact on the marketplace is not direct (e.g., the secret process by which an item is produced) differs from an invention which is available to the public in the form of a commercially-marketed product.”

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64 Id. at 1550.
65 *Gillman*, 114 F.2d at 31 (“We are to distinguish between a public user which does not inform the art and a secret user.”).
66 Although the first inventor will not be able to attain a patent in this case under *Metallizing Engineering*.
67 *Gillman*, 114 F.2d at 31 (“It is true that in each case the fund of common knowledge is not enriched, and that might indeed have been good reason originally for throwing out each as anticipations. But when the statute made any ‘public use’ fatal to a patent, ... there was no escape from holding—contrary to the underlying theory of the law—that it was irrelevant whether the use informed the public so they could profit by it.... Hence the anomaly that, by secreting a machine one may keep it from becoming an anticipation, even though its public use would really have told nobody anything about it.”).
This distinction is important, and inherently murky.\textsuperscript{69} In determining whether the patent of the second inventor should withstand a challenge of invalidity in the face of the prior inventor’s secret commercial use, one must first determine how tenuous the relationship between the invention and the commercial product is. If the invention is directly embodied in the commercial product, then it is a noninforming public use. If the invention is sufficiently distant from the commercial product, a standard that is difficult to quantify, then the invention is a truly secret process. The import of this distinction is that inventors who opt for trade secret may assert that their invention is a noninforming public use, and therefore a valid defense against a patent on the same invention. “If the trade secret user can show that his use of the invention is a ’noninforming public use,’ he will be able to invalidate the patent.”\textsuperscript{70}

There are two reasons given in support of this distinction.\textsuperscript{71} First, noninforming public uses are more likely to become informing public uses as they are more susceptible to reverse engineering. Second, even if unsusceptible to reverse engineering, noninforming public uses are more likely to incite competition given their more visible nature.

b. SELF-DEFEATING SECRET PRIOR INVENTION

In a modification of the first scenario, imagine an individual, much like Meduna from \textit{Metallizing Engineering}, who develops a process and decides to keep it secret. She at once begins to use it commercially, selling the product thereby produced. The public has no means by which to reverse engineer the product or otherwise learn of the secret process that produces it.

\textsuperscript{69} “[A] line has been drawn which makes any noninforming public use an anticipation as soon as the first article or process embodying the invention is passed into the public domain. In contrast, the secret practice of an invention that is not embodied in an article in the public domain would not be an anticipation to the invention under section 102(b).” F. Andrew Ubel, \textit{Who’s On First?—The Trade Secret Prior User Or A Subsequent Patentee}, 76 J. PAT. & TRADEMARK OFF. SOC’y 401, 424 (1994).

\textsuperscript{70} Burke, supra note 68, at 1072.

\textsuperscript{71} See Ubel, supra note 69, at 424.
Two years later, she files for a patent. The patent office learns of her prior commercial use. The issue is whether she will be granted a patent, and what reasons there are for granting rather than denying patent rights in this scenario.

As we have seen, when an inventor keeps an invention secret, as Meduna did in *Metallizing Engineering*, and then seeks a patent, pre-AIA patent law will deny that inventor the sought after legal monopoly. This is on the theory that secret commercial use is tantamount to public use and therefore represents a bar to patentability under § 102(b) of the Patent Act, which states that “A person shall be entitled to a patent unless . . . the invention was . . . in public use . . . in this country, more than one year prior to the date of the application for patent in the United States . . . .”\(^{72}\) That is, the Court has equated secret commercial use with public use. “The ordinary use of a machine or the practice of a process in a factory in the usual course of producing articles for commercial purposes is a public use.”\(^{73}\)

The rule is simple. One seeking a patent “is not allowed to derive any benefit from the sale or the use of his machine, without forfeiting his right, except within two years prior to the time he makes his application.”\(^{74}\)

In *Dunlop Holdings Ltd. v. Ram Golf Corp.*,\(^{75}\) the Seventh Circuit offered three reasons for concluding that a use is a “public use” even though the use does not disclose the invention:

First, the public has received the benefit of the invention. The invention has found its way to the market and thus will “promote the progress of science and useful arts.”\(^{76}\)

\(^{72}\) 35 U.S.C. 102§(b) (emphasis added).
\(^{74}\) Consol. Fruit-Jar Co. v. Wright, 94 U.S. 92, 94 (1876) (quoting Pitts v. Hall, 19 F. Cas. 754, 757 (C.C.N.D.N.Y. 1851)).
\(^{75}\) Dunlop Holdings Ltd. v. Ram Golf Corp., 524 F.2d 33 (7th Cir. 1975).
\(^{76}\) U.S. Const., art. I, § 8, clause 8.
Second, it is presumed that the product is susceptible of reverse engineering. If the product is indeed commercially available, then “it is fair to presume that its secret will be uncovered by potential competitors long before the time when a patent would have expired if the inventor had made a timely application and disclosure to the Patent Office.”

Third, “the inventor is under no duty to apply for a patent; he is free to contribute his idea to the public.” If such a disclosure through commercialization were not held to be a public use, then an inventor’s decision to disclose would “impair his right to continue diligent efforts to market the product of his own invention.” That is, if the product were reverse engineered, then the subsequent discoverer of the process would be able to prevent the original user from using the process if the commercial use were not deemed a public use.

IV. THE NEW STATE OF SECRET PRIOR ART: AMERICA INVENTS ACT

In September of 2011, Congress passed H.R. 1249, the Leahy-Smith America Invents Act and President Obama signed it into law. This reform represents the biggest change to U.S. Patent Law since 1952. Aside form the major change from a first-to-invent to a first-to-file system, the Act also eliminates interference proceedings and develops post-grant opposition.

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77 Dunlop Holdings, 524 F.2d 33.
78 Id.
82 Post-grant oppositions allow challenges of a patent in the first year after the issuance or reissuance of a patent. See § 321 Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat 284.
Most importantly for the purposes of this Note, the Act amends what counts as prior art through its amendments of § 102—particularly relevant is the addition of the phrase “otherwise available to the public.”

The language of pre-AIA § 102(b) read: “A person shall be entitled to a patent unless—the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . . .”

Now, § 102(a) reads, “A person shall be entitled to a patent unless—the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.”

When the term “otherwise available to the public” is added to the terms “public use” and “on sale” it acts to modify their meaning and changes the law. This new list in AIA’s § 102(a) admits of several possible readings. Previously, this Note discussed the Pre-AIA interpretation of the term “public use.” In the first scenario discussed above (self-defeating secret prior invention) secret prior commercial use was considered a “public use” under the law and therefore a bar to patentability. This section aims to understand whether and how the definition of “public use” is modified when a new term is added to the series.

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83 § 102. Conditions for patentability; novelty
(a) A person shall be entitled to a patent unless—
(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or
(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

§ 102 Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat 284.

84 emphasis added
85 See infra Part II.
86 See Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 520 (2d Cir. 1946) (“[I]t is a condition upon an inventor’s right to a patent that he shall not exploit his discovery competitively after it is ready for
Although the terms “public use” and “on sale” have histories of interpretation within the judiciary, “otherwise available to the public” is a new, and terribly vague, term. This Note will argue that the inclusion of this term allows for products or processes to be patent eligible despite prior secret commercial use. This would run counter to the principle originated by Hand in *Metallizing Engineering* that an inventor shall not take advantage of both secret law and the patent law. That principle finds grounding in the old § 102(b) “public use” doctrine. Thus, the inquiry is as follows: Is the term “public use” in the new AIA § 102(a) meant to be understood in the same way as the term “public use” was understood in the pre-AIA § 102(b)? Or, does the addition of “otherwise available to the public” effectively change the proper interpretation of “public use” to exclude secret, commercial uses?

87 See *Egbert v. Lippmann*, 104 U.S. 333, 336 (1881) (holding that even nonvisible use of a corset spring was “public,” and establishing the principle it is “public” use to give or sell the invention “to another, to be used by the donee or vendee, without limitation or restriction, or injunction of secrecy.”); *Hall v. MacNeale*, 107 U.S. 90 (1883) (holding burglar-proof safes to be in public use though the improvement in question was not clearly visible to those using the new feature). *Cf.* *Peerless Roll Leaf Co. v. H. Griffin & Sons Co*., 29 F.2d 646 (2d Cir. 1928) (holding there is no public use if the number of employees in the corporation is limited to as few as are necessary, the customer and public are excluded, and adequate precautions are taken to prevent dispersion of the knowledge before the grace period—no formal pledge to secrecy from employees is necessary, as it is presumed); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261 (Fed. Cir. 1986) (finding no public use where, based on personal relationships and surrounding circumstances, inventor at all times retained control over invention’s use and distribution of information concerning it).

88 See *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55, 56 (1998) (“The on-sale bar applies when two conditions are satisfied before the critical date. First, the product must be the subject of a commercial offer for sale. . . . Second, the invention must be ready for patenting.”).

89 See *Metallizing Eng’g*, 153 F.2d at 517.
a. TEXTUAL ANALYSIS

The new statute may be structured as follows:90

§ 102. Conditions for Patentability; Novelty

(a) A person shall be entitled to a patent unless --

(1) the claimed invention was

   (i) patented,
   (ii) described in a printed publication, or
   (iii) in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; . . .

Application of the maxim noscitur a sociis91—that a word is known by the company it keeps—indicates that “public use” in the old § 102(b)92 has a meaning distinct from “public use” in the new § 102(a).93 In other words, one can consider the new statute to create a series of three terms—from § 102(a)(1)(iii) in the proposed structure. Thus, the interpretation of “public use” must make reference to and is informed by the terms “on sale” and “otherwise available to the public.”

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91 See Jarecki v. G. D. Searle & Co., 367 U.S. 303, 307 (1961) (“The maxim noscitur a sociis, that a word is known by the company it keeps, while not an inescapable rule, is often wisely applied where a word is capable of many meanings in order to avoid the giving of unintended breadth to the Acts of Congress.”).

92 § 102. Conditions for patentability; novelty
A person shall be entitled to a patent unless--
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or 35 U.S.C. § 102(b) (2006).

93 The question becomes whether the addition of the phrase “otherwise available to the public” has so altered the context of the phrase “in public use” as to render the meaning changed from its previous, judicial interpretation.
The invocation of *noscitur a sociis* narrows the definition of “public use” to exclude those applications of the term that are not aligned with the meanings implied by “on sale” and “otherwise available to the public.” “Otherwise available to the public” puts a greater emphasis on the *public* nature of the use. One reasonable understanding of the narrowing limitation is that “public use” no longer means secret commercial use. This would implicitly overrule *Metallizing Engineering’s* treatment of secret commercial processes.

However, one could instead consider the statute in accordance with a different textual maxim: *ejusdem generis.*[^94] *Ejusdem generis* applies when a list of two or more specific descriptors is followed by more general descriptors or a catchall phrase. The otherwise broad meaning of the general descriptors or catchall must be restricted to the same class, if any, of the specific words that precede them. Whether *ejusdem generis* or *noscitur a sociis* applies depends on whether “otherwise available to the public” is a general, catchall phrase.

Where *noscitur a sociis* involved narrowing of the term “public use”, *ejusdem generis* involves narrowing of the general, catchall phrase “otherwise available to the public.” One could argue that the ordinary uses of “public use” and “on sale” have, as a shared theme, the idea that a third party is able to interact with the claimed invention. “Otherwise available to the public” ought to be interpreted to cover a range of cases that are in line with, but distinct from those covered by the preceding terms. Inventions kept totally secret and not embodied in the eventual commercial product, for example, are neither “on sale” nor in “public use” as these terms are understood in ordinary usage. Therefore, secret inventions might be contemplated by the phrase “otherwise available to the public” under this reading.

[^94]: See, e.g., Caminetti v. U.S., 242 U.S. 470, 487 (1917) (invoking *ejusdem generis* to understand “the immoral purpose referred to by the words ‘any other immoral purpose’” in the phrase “prostitution, debauchery, or any other immoral purpose;” concluding that it “must be one of the same general class or kind as the particular purpose of ‘prostitution’ specified in the same clause of the statute.”).
Thus we find that there are at least two textual approaches to interpretation of the new phrase “in public use, on sale, or otherwise available to the public.” This directly affects the second scenario described above (self-defeating secret prior invention). If the *noscitur a sociis* interpretation is seen as correct, then totally secret inventions that are not embodied in commercial products will not prevent the inventor from seeking patent protection, even years later. If the *ejusdem generis* interpretation is favored, then such inventions will be considered prior art. In that case, the commercial sale of the noninforming product will prevent the issuance of a patent to the original inventor unless the sale is made “1 year or less before the effective filing date of a claimed invention.”95

For the first scenario addressed above (secret prior invention by others), Congress has specifically addressed this issue in the form of the “prior user rights defense.”96 Under this defense, a party that was commercially using (or preparing to commercially use) an invention as a trade secret may assert this defense so as to prevent a finding of infringement based on a subsequent patent on the same invention.97 “This defense acknowledges the fact that inventors may, for a variety of reasons, prefer not to seek patent protection.”98

These dueling textual interpretations are further limited by the fact that Congress was not writing on a blank slate. Indeed, the terms “public use” and “on sale” have well-established

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96 *Id.* at 297-99.
97 The prior user defense is subject to the following limitations:
   - a prohibition against license, assignment or transfer of the defense, other than in connection with an assignment or transfer of the entire business to which the defense relates;
   - the defense is geographically limited to cover only those sites where the invention was used before the critical date; and
   - there is an explicit exception to the defense for patents owned by or assigned to universities or affiliated technology transfer organizations.
98 DAVID J. KAPPOS & TERESA STANEK REA, UNITED STATES PATENT & TRADEMARK OFFICE, REPORT ON THE PRIOR USER RIGHTS DEFENSE (2012).
meanings under the prior version of the Patent Act. Any judicial decision to change the interpretation of “public use” must address the well-known canon that words and phrases that have received judicial construction before enactment are to be understood according to that construction.\textsuperscript{99} However, if it can be shown that the legislature clearly intended, by reference to the letter and spirit of the law, that the terms are to be given a different meaning, then the old meaning ought to be abandoned.\textsuperscript{100}

b. UNDERSTANDING CONGRESS’ INTENT THROUGH LEGISLATIVE HISTORY

Aside from the textual arguments about the ambiguous effect of the inclusion of the new statutory term “otherwise available to the public,” the legislation is accompanied by a rich legislative history that sheds some light on plausible interpretative methodologies that the Courts may employ. Although it is common for the judiciary to avoid wading through the legislative history,\textsuperscript{101} the AIA as enacted is likely to prove sufficiently ambiguous and problematic to warrant the inclusion of extra-textual sources such as legislative history and statutory purpose.

\textsuperscript{99}For a concise statement of this canon of construction, see, Scholze v. Scholze, 2 Tenn. App. 80, 92 (1925) (“It is an established rule in the construction of statutes that words with a fixed meaning at common law, or by decisions of the court, are presumed to be used in a statute later enacted in the same sense and with the same meaning that they had at common law or in such decisions, unless a different sense is apparent from the context or the general purpose of the statute, or unless expressly defined by statute.”); Henry Campbell Black, Handbook on the Construction and Interpretation of Laws 186 (2d ed. 1911) (“Words and phrases in a statute which have received a settled judicial construction before its enactment are to be understood according to that construction unless the statute clearly requires them to bear a different meaning”).

\textsuperscript{100}See Dixon v. Robbins, 158 N.E. 63 (N.Y. 1927) (holding that though the term “hotel” had a common understanding at common law the letter and spirit of the new enactment required that the court “not look solely to old definitions when we determine the meaning of a word which must be applied under changed conditions.”).

\textsuperscript{101}See Cont’l Can Co. v. Chicago Truck Drivers, 916 F.2d 1154, 1157-58 (7th Cir. 1990) (“The text of the statute, and not the private intent of the legislators, is the law. Only the text survived the complex process for proposing, amending, adopting, and obtaining the President’s signature (or two-thirds of each house). It is easy to announce intents and hard to enact laws; the Constitution gives force only to what is enacted. So the text is law and legislative intent a clue to the meaning of the text, rather than the text being a clue to legislative intent.”); Caminetti v. U.S., 242 U.S. 470, 485 (1917) (“Where the language is plain and admits of no more than one meaning, the duty of interpretation does not arise, and the rules which are to aid doubtful meanings need no discussion.”); Ali v. Fed. Bureau of Prisons, 552 U.S. 214, 228 (2008) (“We are not at liberty to rewrite the statute to reflect a meaning we deem more desirable. Instead, we must give effect to the text congress enacted . . . .”).
This section discusses some of the more elucidating statements regarding secret prior art made by the members of Congress in the course of enacting the AIA.

On September 8th, 2012 the Senate passed H.R. 1249, while rejecting several amendments, on a vote of 89-9. During the discussion accompanying the voting process, Arizona Senator Jon Kyl said the following:

When the committee included the words “or otherwise available to the public” in section 102(a), the word “otherwise” made clear that the preceding items are things that are of the same quality or nature. As a result, the preceding events and things are limited to those that make the invention “available to the public.” The public use or sale of an invention remains prior art, thus making clear that an invention embodied in a product that has been sold to the public more than a year before an application was filed, for example, can no longer be patented. Once an invention has entered the public domain, by any means, it can no longer be withdrawn by anyone. But public uses and sales are prior art only if they make the invention available to the public.

This is a strong endorsement of the noscitur a sociis reading. Clearly, the secret processes used to create commercial products that are themselves in public use or on sale would not fall within the scope of prior art. Senator Kyl’s statement bolsters the distinction put forth in Gillman between a completely secret use (e.g. the use of a process that aids in the production of a product) and a public, but non-informing use of an invention (e.g. the product is in the public use, but does not reveal the invention). The former use is not available as prior art, while the latter is.

The clear implication of this is that an individual who opts to keep a new process secret does not lose out on a future opportunity to patent so long as the process itself remains unavailable to the public (i.e. it is a secret use, not a public non-informing use). This would be a strong departure from Metallizing Engineering, which stood for the proposition that commercial

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exploitation of even purely secret processes meant that the inventor could not later opt for patent protection.

Encouraging this conclusion, Kyl goes on to say:

Finally, I would note that the interpretation of 102 that some opponents appear to advance—that nondisclosing uses and sales would remain prior art, and would fall outside the 102(b) grace period—is utterly irrational. Why would Congress create a grace period that allows an invention that has been disclosed to the world in a printed publication, or sold and used around the world, for up to a year, to be withdrawn from the public domain and patented, but not allow an inventor to patent an invention that, by definition, has not been made available to the public? Such an interpretation of section 102 simply makes no sense, and should be rejected for that reason alone.104

This is a plain statement by Senator Kyl that he, at least, expects that “nondisclosing uses and sales” are not prior art and do not render an invention ineligible for patent. Here, “nondisclosing uses and sales” refers to the secret use category in Gillman, and not the non-informing public use category. Kyl also discusses prior art in the context of the prior commercial use defense:

As soon as the product is sold to the public, any invention that is embodied or otherwise inherent in that product becomes prior art and cannot be patented by another party, or even by the maker of the product after the grace period has expired. Some products, however, consist of tools or other devices that are used only by the inventor inside his closed factory. Others consist of substances that are exhausted in a manufacturing process and never become accessible to the public. Such products will not become prior art.105

And as if this wasn’t enough evidence of Senator Kyl’s belief that the new bill does away with Metallizing Engineering’s treatment of self-defeating secret prior uses, two days prior to making these statements, Senator Kyl had this to say about prior art:

Another one of the bill’s clear improvements over current law is its streamlined definition of the term “prior art.” Public uses and sales of an invention will remain prior art, but only if they make the invention available to the public. An inventor’s confidential sale of his invention, his demonstration of its use to a private group, or a third party’s unrestricted but private use of the invention will no longer constitute private art. Only the

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104 Id. at S5431.
105 Id. at S5430 (emphasis added).
This interpretation has the salutary effect of greatly reducing the burden of deposition and litigation discovery. Instead of having “to identify all of the inventor’s private dealings with third parties and determine whether those dealings constitute a secret offer for sale . . . [t]he need for such discovery is eliminated once the definition of ‘prior art’ is limited to those activities that make the intention accessible to the public.” This will reduce the expense of litigation in many cases.

The authors of the America Invents Act have each also made statements showing support of this view. Representative Lamar Smith reported:

Prior art will be measured from the filing date of the application and will typically include all art that publicly exists prior to the filing date, other than disclosures by the inventor within 1 year of filing. . . . Thus, in section 102 the “in this country” limitation as applied to “public use” and “on sale” is removed, and the phrase “available to the public” is added to clarify the broad scope of relevant prior art, as well as to emphasize the fact that it must be publicly accessible.”

And Senator Patrick Leahy reported one day after the Senate enacted its version of the bill:

One of the implications of the point we are making is that subsection 102(a) was drafted in part to do away with precedent under current law that private offers for sale or private uses or secret processes practiced in the United States that result in a product or service that is then made public may be deemed patent-defeating prior art. That will no longer be the case. In effect, the new paragraph 102(a)(1) imposes an overarching requirement for availability to the public, that is a public disclosure, which will limit paragraph 102(a)(1) prior art to subject matter meeting the public accessibility standard that is well-settled in current law, especially case law of the Federal Circuit.

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106 Id. at S5320 (emphasis added).
107 Id.
Throughout the legislative history of this act each reference to the modification of prior art, with respect to secret processes and products, indicate that the reign of *Metallizing Engineering* may have ended.

V. Public Policy Tradeoffs

Textual arguments prove ultimately ambiguous as battling semantic canons point in different directions and the legislative history seems to one-sidedly promote a reading of the new statute that implicitly overrules *Metallizing Engineering*. According to this reading, truly secret inventions that are sufficiently divorced from the commercial product so as not to constitute a noninforming public use are not prior art against the inventor who later seeks a patent. In this way, an individual could exploit their invention under the protection of trade secret law for an indefinite period of time, and later seek a patent. That inventor would run the risk that reverse engineering or independent invention would lead to the discovery and patenting of their invention by another, but if the invention is not embodied in the commercial product, this seems unlikely.

The gloss from the legislative history seems at odds with the aforementioned substantive canon of judicial interpretation that words and phrases that have received judicial construction before enactment of a new statute are to be understood according to that construction. Furthermore, legislative history is an especially dubious source for statutory construction.110 Courts and commentators are generally reluctant to rely on legislative history since doing so

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110 See, John F. Manning, *Textualism as a Nondelegation Doctrine*, 97 COLUM. L. REV. 673, 708-25 (1997) (arguing that the textualists’ rejection of legislative history is best explained by reference to the constitutional norm against legislative self-delegation and that the constitutionally required legislative process of bicameralism and presentment is designed to check factional influence, promote caution and deliberation, and provoke public discussion); John F. Manning, *What Divides Textualists from Purposivists?*, 106 COLUM. L. REV. 70, 111 (2006) (arguing that a textualism which favors semantic context over policy context is a superior form of statutory interpretation compared to any form of modern purposivism).
effectively, and unconstitutionally, transfers rule make authority from the Congress as a whole to committees, sponsors, or speakers whose statements are not subject to the Article I, section 7 constraints of bicameralism and presentment and who cannot properly be said to be speaking with any constitutionally ordained, lawmaking authority. Senator Leahy’s statement above, for example, was made after the Senate had voted to enact its version of the bill. It is impossible to know if those who voted in its favor shared his understanding of the bill. An after-the-vote statement in the record may be an improper attempt to influence future judicial interpretation without having to undergo the costly and timely work of convincing others that one’s view is the most favorable.

However, the mere fact that legislative history is not favored does not necessitate that all purposeful inquiry is forbidden or disfavored. On the contrary, some judges and scholars agree that the purpose of the legislature is exactly that which is to be ascertained by judicial inquiry. While legislative purpose is often thought to be embodied in the statutory text, judges will often require that the interpretation of ambiguous text be consistent with a statute’s overall purpose.

111 See Manning, Textualism as a Nondelegation Doctrine, supra note 110, at 694-95 (discussing this refinement of the textualist position). To prevent the circumvention of Article I section 7 processes of bicameralism and presentment, the Court has consistently prevented Congress from reserving delegated authority for its own components, agents, or members. See, e.g., Metro. Wash. Airports Auth. v. Citizens for the Abatement of Aircraft Noise, Inc., 501 U.S. 252, 275-77 (1991) (holding that individual members of Congress may not serve on a tribunal exercising delegated power); Bowsher v. Synar, 478 U.S. 714, 726 (1986) (holding that Congress may not reserve power to remove an officer exercising delegated lawmaking authority); INS v. Chadha, 462 U.S. 919, 944-59 (1983) (invalidating one-House legislative veto).

112 See, Richard A. Posner, Statutory Interpretation-in the Classroom and in the Courtroom, 50 U. CHI. L. REV. 800, 810 (1983) (“A court should adhere to the enacting legislature's purposes (so far as those purposes can be discerned) even if it is certain that the current legislature has different purposes and will respond by amending the relevant legislation to reverse the court's interpretation.”); W. Va. Univ. Hosps., Inc. v. Casey, 499 U.S. 83, 115 (1991) (Stevens, J., dissenting) (“In the domain of statutory interpretation, Congress is the master . . . . [W]e do the country a disservice when we needlessly ignore persuasive evidence of Congress’ actual purpose and require it to take the time to revisit the matter and to restate its purpose in more precise English whenever its work product suffers from an omission or inadvertent error.”) (citation omitted) (internal quotation marks omitted). But see, Frank Easterbrook, Text, History, and Structure in Statutory Interpretation, 17 HARV. J.L. & PUB. POL’Y 61, 63 (1994) (emphasizing the text as primary, stating that judges are “supposed to be faithful agents, not independent principals. Having a wide field to play—not only the statute but also the debates, not only the rules but also the values they advance, and so on—liberates judges. This is objectionable on grounds of democratic theory as well as on grounds of predictability.”).
This section will analyze the public policy arguments for differing interpretations of the ambiguous phrase “in public use, on sale, or otherwise available to the public.” The policy arguments considered are the incentive to invent, incentive to disclose, facilitating dissemination and commercialization, and considerations of desert.

The following is a table roughly summarizing how each public policy argument weighs in on the debate between a trade secret prior use and a prospective patent:

<table>
<thead>
<tr>
<th>Secret Prior Invention By Others</th>
<th>Incentive to Invent</th>
<th>Incentive to Disclose</th>
<th>Encouraging Dissemination</th>
<th>Desert</th>
</tr>
</thead>
</table>

For the first scenario (secret prior invention by others), the public policy rationales tend to favor the trade secret holder over the subsequent patent seeker. For the second scenario (self-defeating secret prior invention), the public policy rationales are essentially split on whether a trade secret user should be allowed to seek a patent. The following explicates the rationales behind each of the conclusions contained in the above table. Importantly, the resolution of this issue will hinge on which, if any, of the rationales a judge chooses to embrace. Issues of interpretation that invoke legislative history and overall purpose are inherently at the whim of judicial preference for certain rationales over others—this is no exception.

a. INCENTIVE TO INVENT

113 See United States v. Am. Trucking Ass’ns, 310 U.S. 534, 543 (1940) (supporting purposive inquiry generally, but stating that “[t]here is . . . no more persuasive evidence of the purpose of a statute than the words by which the legislature undertook to give expression to its wishes.”).
Patent rights are primarily seen as an incentivizing factor for invention. As Jeremy Bentham puts it: “He who has no hope that he shall reap will not take the trouble to sow.” Though the argument is often made that patent protection encourages inventions that would otherwise not exist, the verdict is still out on whether patent law has the empirical effect on innovation that scholars and politicians assume it must. Regardless of the actual effects of patenting on innovation, it remains an important policy consideration to judges and scholars.

For secret uses, the incentive of patent law is not required to bring about the invention. In Bentham’s language, if a second party has already “sown” without the promise of “reaping” provided by the patent law, patent law is clearly not the primary incentive for this particular invention. The second party has independently, and without the carrot of patent protection, brought the invention into the world. When the promise of trade secret law is sufficient to bring

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114 Part I.a, supra, discusses this central purpose of patent law to argue that it incentivizes inventions of a different ilk than does trade secret law.
115 JEREMY BENTHAM, THE RATIONALE OF REWARD 318 (1830).
117 See Gaia Bernstein, In the Shadow of Innovation, 31 CARDOZO L. REV. 2257 (2010) (reporting on a quantitative analysis of the case law, showing that the percentage of cases referring to “innovation” since the mid-1980s has significantly increased).
118 “Even most contemporary patent scholars treat this assumption as presumptively correct, while allowing for the possibility that future research might one day call it into question. This willingness to assume—at least for the time being—that patents work as intended has the same practical effect as an evidentiary presumption: it shifts the burden of proof onto the challengers of the conventional wisdom.” Lea Shaver, Illuminating Innovation 8 (Hofstra Univ. Legal Studies Research Paper No. 12-08, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1658643.
119 See Part I.a, supra.
about an invention, then the first scenario (secret prior invention by another) ought to be resolved in favor of the prior trade secret user.

Where the courts have, in *Gillman* and *Gore*, for example, held that secret prior use by another is not prior art against a subsequent patent on the same invention, they have inefficiently utilized the incentive structure of intellectual property. In other words, why should the law grant a legal monopoly to an individual for inventing that which has already been invented by another under trade secret law?

This logic extends to the self-defeating secret prior invention scenario as well. When an individual invents a process to make a commercial product (which does not embody the invented process in an informing way) but does not seek a patent, then there is reason to assume that the incentive of patent law did not motivate or bring about the invention in any meaningful way. If this same individual later determines that patent protection is desirable, it is inefficient to award a patent to an invention that was created under the auspices of trade secret law, or in any case without the incentive of patent law.

If the promise of a patent does not motivate the creation of the invention in the first instance, then the theory of patents as incentives does no work in these cases. Under this theory, a court should not resolve ambiguous text in favor of a party that was not incentivized by the patent law but nevertheless seeks to gain its benefits. Thus, under a theory of patents as incentives to invention, both secret prior use by others and oneself ought to render others’ inventions ineligible.

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120 The second solution posed in Part III.a, *supra*, is the one on which *Gillman* and *Gore* settle. Under the incentive theory of patent law, however, the first scenario—prior secret use of the first inventor makes the patent of the second inventor invalid—is more appropriate since it ensures that patents are not granted to inventions that would come about regardless of the patent system.
Of course, this theory of patents as incentive taken alone does not consider the benefits that society receives from the disclosure of a patent. If no patent is granted on an invention, it is already realized and in use in the world and is susceptible to reverse engineering. Regardless of why or how an invention came into being, society reaps a benefit when the technology is reduced to a patent or otherwise disclosed to the relevant community.

b. INCENTIVE TO DISCLOSE

Patent law is commonly though to promote the disclosure of ideas that would otherwise remain unknown to the world. This is referred to as the quid pro quo of the patent system: it is for the price of disclosure that the Constitution guarantees exclusive rights to inventors. "The federal patent system thus embodies a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years."

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121 See Dunlop Holdings Ltd. v. Ram Golf Corp., 524 F.2d 33 (7th Cir. 1975) (the second reason given for concluding a secret prior use is a "public use" is that it is susceptible to reverse engineering) (Part III.b, supra).
122 But see Fritz Machlup, Staff of Senate Subcomm. on Patents, Trademarks and Copyrights, 85th Cong., An Economic Review of the Patent System, Study No. 15, at 76-77 (Comm. Print 1958) (questioning whether the patent system is, on balance, the most efficient way to serve this disclosure function).
123 See Universal Oil Products Co. v. Globe Oil & Ref. Co., 322 U.S. 471, 484 (1944). (“As a reward for inventions and to encourage their disclosure, the United States offers a seventeen-year monopoly to an inventor who refrains from keeping his invention a trade secret. But the quid pro quo is disclosure of a process or device in sufficient detail to enable one skilled in the art to practice the invention once the period of the monopoly has expired; and the same precision of disclosure is likewise essential to warn the industry concerned of the precise scope of the monopoly asserted.”) But see Fritz Machlup & Edith Penrose, The Patent Controversy in the Nineteenth Century, 10 J. ECON. HIST. 1, 10-20 (1950) (arguing that the framers of the United States Constitution rejected the notion that inventors have a natural property right in their invention, thus distinguishing and rejecting a moral argument for patent protection from the utilitarian argument seen in Universal Oil).
124 In Grant v. Raymond, Chief Justice Marshall articulates a contract theory of patent law wherein the time limited monopoly granted to the inventor is a “reward stipulated for the advantages derived by the public for the exertions of the individual, and is intended as a stimulus to those exertions.” 31 U.S. 218, 242 (1832). See also Machlup & Penrose, supra note 123, at 31-32 (“Society makes a contract with the inventor by which it agrees to grant him the exclusive use of his invention for a period and in return he agrees to disclose his secret in order that it will later be available to society.”).
This justification is premised on the fear that if an inventor is not incentivized to disclose, then her progress will remain secret and, eventually, die with her. Society would therefore lose the new art and be worse off as a result. This social contract theory of patent law is subject to the critique that “an inventor who, optimistically, thinks he need not fear that others would either find out his secret or come independently upon the same idea, will not go to the expense and trouble of taking a patent; he will disclose only what he fears cannot be kept secret.” The implication of this apt critique is that inventors will choose to keep their inventions secret (for instance, by utilizing trade secret law) when they believe that the cost of disclosure is greater than the benefit of the time-limited monopoly. Thus, while it may not always be in the best interest of the inventor to disclose, it is almost always in the best interest of society to maximize disclosure.

In an attempt to maximize disclosure, the law may treat secret prior use as “concealment” as the court did in Gillman. When a prior use is considered “concealment” it does not count as prior art and a subsequent inventor is able to disclose the invention through the patent system. On the other hand, allowing for the secret prior use to make subsequent patent applications ineligible keeps an invention secret for a longer period of time. Trade secrets are not disclosed in as timely a manner as patents; they may become known through independent invention and reverse engineering in the fullness of time, but they may also die with the inventor.

126 But see J.E.T. Rogers, On the Rationale and Working of the Patent Laws, 26 J. STAT. SOC’Y, LONDON 121, 125 (1863) (arguing that it is “insolent vanity” to presume that one’s discoveries are so peculiar or borne of such genius as to be undiscoverable by others and thus claiming that property rights ought not to issue to inventors for disclosure of their inventive processes).
127 See Louis Woloński, Anneles de la Societe Economie Politique, 126 (1895 vol. VIII) ("The patent constitutes a genuine contract between society and inventor; if society grants him a temporary guaranty, he discloses the secret which he could have guarded; quid pro quo, this is the very principle of equity.").
128 Machlup, supra note 122, at 24.
129 Gillman v. Stern, 114 F.2d 28 (2nd Cir.1940).
Thus, when a patentee seeks to assert her rights against a prior secret user, considerations of disclosure may, at first glance, seem to favor the patentee. However, this may not be the whole picture. If the invention in question is susceptible to independent invention or reverse engineering it seems as if granting a patent is unnecessary to incentivize the disclosure of an invention. In the case of a subsequent, independent inventor, then there is strong reason to believe that the trade secret will soon be disclosed. After all, if it is already known to at least two different inventors, then there is reason to suspect that the technology in question will become known to others soon enough. In this scenario, the socially efficient allocation may be not to issue a patent when there is a secret prior user. In that way, the public does not suffer the social cost of the legal monopoly, but they will likely receive the benefit of the disclosure of the idea through the independent invention of others similarly situated in the relevant art.

Contrarily, when the trade secret prior use is by the selfsame inventor, the likelihood of independent invention or reverse engineering is lower. In such cases, the fear that the inventor will die with her invention, forever depriving the world of her idea is more likely. In order to realize the social benefits of disclosure, the patent system should ensure she retains the right to seek a patent.

The legislative history of the AIA as well as the textual interpretation relying on *noscitur a sociis* achieves this balance by overruling *Metallizing Engineering*’s rule that secret prior commercial exploitation is a bar to patenting.

Therefore, efficient disclosure of ideas is achieved when self-defeating secret prior use is *not* within the scope of prior art and secret prior use by others *is* within the scope of prior art.

c. **Facilitating Dissemination/Commercialization**
Although theories of incentivizing invention and disclosure have “been the model for 200 years,”¹³⁰ modern theorists view the “incentive model [as providing] at best a partial justification for the patent system.”¹³¹ Indeed, the incentive model might suggest that a strong correlation should exist between increasing patent protection and increasing innovation.¹³² However, “the empirical literature is inconclusive on the question of whether stronger patents increase or decrease innovation.”¹³³ An alternative justification for the patent system is that it seeks to facilitate dissemination of ideas by lowering transaction costs and thereby promoting commercialization¹³⁴ while simultaneously solving Arrow’s information paradox.¹³⁵

Under the commercialization view of patent law, competition among firms becomes a necessary consideration as a market develops. The first-mover incurs numerous initial investments that later-movers need not incur.¹³⁶ In the face of these upfront costs, however, first-movers enjoy an advantage “from a brief period of exclusivity in the market while competitors ‘gear up’ to make the new invention, and by establishing a recognizable brand and consumer

¹³⁰ Mark A. Lemley, Reconceiving Patents in the Age of Venture Capital, 4 J. SMALL & EMERGING BUS. L. 137, 139 (2000).
¹³² However, if invention is cumulative, then incentives for follow-on inventors are decreased by strong protection to earlier inventors. See ABBOTT PAYSON USHER, A HISTORY OF MECHANICAL INVENTION (1954).
¹³⁴ See Heald, supra note 131, at 476. (arguing that “patent law serves to lower transaction costs . . . [b]y establishing a title registration system for some sorts of information assets.”); Kitch, supra note 32, at 265 (foreshadowing recent non-incentive theories by focusing on how the patent system facilitates transactions and seeks “to increase the output from resources used for technological innovation.”).
¹³⁵ Patents facilitate the licensing of ideas by permitting first movers to disclose ideas while retaining control over them. See KENNETH J. ARROW, ESSAYS IN THE THEORY OF RISK-BEARING 152 (1971) (arguing that the “fundamental paradox” of information is that “its value for the purchaser is not known until he has the information, but then he has in effect acquired it without cost.”).
¹³⁶ See F. Scott Kieff, Property Rights and Property Rules for Commercializing Inventions, 85 MINN. L. REV. 697, 707-08 (2001) (“The invention must be developed into some commercial embodiment. Capital may have to be raised. Production facilities and labor must be made available. Distribution channels must be created. Consumers must be educated about the existence and benefits of this new good or service.”).
connection of the first mover seller to the product."137 If a first-mover advantage is to provide the incentives for early and aggressive commercialization, then first movers must be able to recoup their initial investments as well as avoid the free rider problem.138

In attempting to maximize commercialization and dissemination of the embodiments of technology, therefore, an optimal balance between incentives to pursue trade secret law and patent protection should be sought. Both intellectual property systems restrict the dissemination and commercialization of technology, but to different extents. If an inventor believes that others will not find out her same idea through independent invention or reverse engineering, then she will keep her ideas as trade secrets. This is of an indefinite term and, as previously mentioned, the idea could even die with the inventor. Patents, on the other hand, have a definite term length of twenty years. Thus, the law should encourage patenting over trade secret law so as to ensure eventual dissemination of the rights to commercialize new technologies.

Furthermore, patents are easier to license than trade secrets. Trade secret licenses require a secrecy agreement (also called a nondisclosure agreement) in order to solve Arrow’s paradox.139 This disclosure paradox is easily solved by a patent, which discloses the secret while simultaneously preserving the inventors’ exclusive right to its use. The transactions costs for licensing patents are lower than for licensing trade secrets.140

137 Strandburg, supra note 22 at 510. But see Kieff, supra note 136, at 708 (“Second movers generally enjoy numerous advantages over the first movers against whom they compete.”).
138 See Rebecca S. Eisenberg, Patents and the Progress of Science: Exclusive Rights and Experimental Use, 56 U. CHI. L. REV. 1017, 1025 (1989) (“If successful inventions are quickly imitated by free riders, competition will drive prices down to a point where the inventor receives no return on the original investment in research and development.”)
139 See ARROW, supra note 135; Karl F. Jorda, Trade Secrets and Trade-Secret Licensing, in IN INTELLECTUAL PROPERTY MANAGEMENT IN HEALTH AND AGRICULTURAL INNOVATION: A HANDBOOK OF BEST PRACTICES 1043, 1054 (A. Krattiger, R.T. Mahoney, L. Nelsen, et al. eds., 2007) (“The trade-secret owner cannot ‘let the cat out of the bag,’ and the potential licensee will not want to ‘buy a pig in a poke.’”).
140 Of course the costs of obtaining a patent are greater than for obtaining a trade secret, but we are here focused on the transaction costs of licensing that are come about after the intellectual property right is secured.
If the patent law seeks to facilitate commercialization and dissemination of inventive products, then the shorter term-length and licensing ease of patents informs how the law ought to treat secret prior uses by others and by the inventor herself. In the case of secret prior use by another, commercialization is maximized to the extent that a greater number of people are able to produce and sell the product—more producers lead to more commercialization. Thus, the prior user rights defense\(^\text{141}\) may be the ideal solution since it allows both producers to co-exist (albeit with some major limitation imposed on the prior user). Both the prior user (trade secret holder) and the subsequent patentee continue to produce and sell the technology, and all future distributors will be able to interact with the patent holder to secure a license.

In the case of a self-defeating prior secret use, allowing the patent to issue regardless of the secret past use would facilitate further commercialization and distribution through the ease of patent licensing in the same way. If a patent is allowed to issue on inventions that were previously kept secret by the inventor herself, then the lowered transaction costs associated with patent licensing (compared to trade secret licensing) will facilitate greater dissemination of the commercial product than if the invention were held to be ineligible for patenting.

d. DESERT

The first three justifications for patent law are the traditional incentives discussed by courts and commentators. They involve complex economic determinations regarding how best to structure the patent system so as to maximize incentives for invention, disclosure, and dissemination of ideas and their embodiments. The arguments that one can make for or against secret uses as prior art from such perspectives are subject to debate and are part of the complex economic and political history of patent law. Notably absent from this historical debate are

\(^{141}\) See Part IV.a, infra; Leahy-Smith America Invents Act, 125 Stat. 284, 297-99 (2011) (discussing the “prior user rights defense”).
considerations of desert—derived from a labor theory of property and social contract theory. Indeed, it may be the case that considerations of desert lead us to results contrary to those of utility or economic efficiency.

But if Locke’s labor theory is extendable from mere tangible goods to intellectual goods, then “it will constrain utility arguments at every level of specificity.” Lockean labor theory places two stipulations on the theory that labor produces a property right in the thing created. The first is that one must leave enough and as good for others; the second is that one must not take more than one can use.

Thus, for the scenario in which a subsequent inventor seeks a patent, the secret prior use of another should not be considered prior art. That is, the first inventor and trade secret user is certainly entitled to her use. She used her labor to create property. And since independent invention is a way around trade secret protection, she has left enough and as good for others. Clearly she deserves her rights in the Lockean sense.

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143 See Adam Mossoff, Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent "Privilege" in Historical Context, 92 CORNELL L. REV. 953, 957-58 (2007) (arguing that “broad-brushed declarations that patents were merely special legal privileges are wrong” and that “the social contract doctrine and a labor theory of property defined early American patent rights as privileges.”).

144 See Lawrence C. Becker, Deserving to Own Intellectual Property, 68 CHI.-KENT L. REV. 609 (1993) (arguing that “desert-for-intellectual-labor arguments . . . seem especially powerful for intellectual property, but they yield results that seem to be a bad fit with those reached, say, by economic or utilitarian reasoning.”).

145 For the classic statement of the labor-desert argument for tangible goods, see JOHN LOCKE, TWO TREASISES OF GOVERNMENT AND A LETTER CONCERNING TOLERATION 111–22 (Ian Shapiro ed., 2003).

146 See Becker, supra note 144, at 610 (arguing that “if it is the case that people can ‘deserve’ property in the (unowned) tangible objects they improve with their labor, then surely the case is no weaker for their deserving property in the intellectual objects they create.”).

147 See id. at 621.

148 LOCKE, supra note 145, at 111–13 (particularly §§ 27, 31). See also Wendy Gordon, A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property, 102 YALE L.J. 1533, 1538, 1608 (1993) (discussing Locke’s natural law theory and arguing that the public’s interest should prevail over the interest of the laborer’s; further arguing that patent law gives more than is justified under a Lockean system).
The second inventor too has an equally valid claim to the intellectual property. She too has made use of her labor to create value. And, since ideas are “like fire, expansible over all space, without lessening their density at any point, and, like the air in which we breathe, move and have our physical being, incapable of confinement or exclusive appropriation”\(^{149}\) she has left enough and as good for others. However, the argument for granting patents at all is difficult to make under the desert theory. This is because “ownership of abstract ideas is . . . prohibited by Locke’s theory of labor.”\(^{150}\) Perhaps the trade secret rights should be the exclusive rights in such a situation. “The desert argument suggests that the laborer deserves to benefit from her labor, at least if it is an attempt to do something worthwhile.”\(^{151}\) But it does not give her the right to assert this right against others who have labored in the same way.

For the case of self-defeating prior use, a patent ought not to issue to one who has already taken advantage of trade secret law under considerations of desert. This is because she would be appropriating an abstract idea to the exclusion of all others if the patent issues. Lockean theory does not support a patent issuing, so the trade secret law will prevail.\(^{152}\)

**CONCLUSION**

Trade secret law and patent law exist in different spheres and are intended to incentivize different sorts of inventions. The doctrinal line that separates the two spheres is determined by the legislature when it stipulates the requirements for patent eligibility. This Note argues that the passage of the America Invents Act shifts this line in ways important to the treatment of prior art that has been kept secret by the inventor in cases where (a) a subsequent, independent inventor

\(^{149}\) Thomas Jefferson to Isaac McPherson 3 Aug. 1813 *Writings 13:333--35*.


seeks a patent on the same invention and (b) where the original inventor seeks a patent on the secret invention after the grace period has expired.

The law before the enactment of the America Invents Act does not allow an individual to exploit an invention in secret for a period that exceeds the grace period and then get a patent on that invention. This Note argues that the language introduced in the Act, when read in conjunction with the legislative history and purposes of the Act changes this judicial precedent. Specifically, the replacement of the phrase “in public use or on sale” with the new “in public use, on sale, or otherwise available to the public” sufficiently modifies the term “public use” so that it no longer includes the use of secret processes or products which are not embodied in the invention that is commercialized. Importantly, this allows a trade secret holder to opt for patent protection at any time, so long as all the other requirements of the patent law are met.