

Blocking the Sword of Damocles: Mitigating the Threat That a Trade Secret Becomes Patent Infringement

Henry H. Perritt, Jr.*

Inventors who protect their inventions as trade secrets can find themselves in danger of infringing later patents issued to other inventors who independently develop similar technology. Patent law grants inventors a temporary monopoly in exchange for public disclosure, while trade secret law protects confidential information without a time limit, provided that reasonable efforts are made to maintain secrecy. Inventors who rely on trade secrets may lose protection if someone else patents the same invention. Patents, when issued, make the details of an invention public, thereby extinguishing any trade secrets in the same subject matter. Not only that, prior inventors relying on trade secrets may become infringers of later patents. The prior user defense, codified in Section 273 of the Patent Act, allows the first inventor to continue using the invention without fear of infringement liability, provided that he commercializes his invention. While the prior user defense provides some protection, it has limitations: It applies only to commercial uses that predate the patent filing by at least a year and it is limited to the specific subject matter that was commercially used, meaning that it does not offer blanket protection for all variations of the invention. While the prior user defense provides a shield against the “sword of Damocles,” it is not a perfect solution.

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* © 2025 Henry H. Perritt, Jr. Professor of Law Emeritus, and former dean, Chicago-Kent College of Law, Illinois Institute of Technology. Author of twenty-five books, including *Trade Secrets for the Practitioner* (3d ed. 2024), and more than one hundred law review articles on labor and employment law, administrative law, law and technology, and international relations. Democratic nominee for the U.S. House of Representatives, Illinois 10th District, 2002. Former member, National Academy of Sciences Computer Science and Telecommunications Board. Member of the bar: Virginia, Pennsylvania (inactive), District of Columbia, Maryland, Illinois (retired), USPTO, and the Supreme Court of the United States. Commercial helicopter, private instrument airplane, and drone pilot. Extra class radio amateur (K9KDF). The author holds a number of patents.

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I. INTRODUCTION

Bastian Wood is a young assistant professor in the Department of Electrical and Computer Engineering at the University of Florida in Gainesville. His Ph.D. thesis concerned the phenomenon of hallucination in generative artificial intelligence systems (generative AI). His current research focuses on techniques for controlling hallucination that produce factual errors in generative AI output.

Bastian did his undergraduate and graduate work at the University of Florida, where he was a member of the Sigma Alpha Epsilon fraternity. One of his fraternity brothers, Blaine Abbott, graduated in the same year as Bastian, went to law school at the University and now is practicing patent law in Gainesville with the Milcupp Law Group.

Bastian and Blaine get together at least weekly for a few beers and dinner at The Top on North Main Street.

* * *

“I did what you advised a couple months ago,” Bastian said, “and forgot about investing energy in trying to get a patent. I have been very careful to maintain trade secrecy for my work.”

Blaine laughed. “I’m glad to hear that. I hope you have been using the nondisclosure agreement that I drafted with everyone you share your secrets with.”

“I have, and I am really excited to tell you about an inquiry that I’ve gotten from one of the best funded AI venture capital outfits to commercialize my invention, which, as you know—”

Blaine put his finger to his lips. “Shhh!” he said. “The walls have ears.”

Bastian lowered his voice to a whisper and said, “I have integrated the multi-model consensus approach with knowledge-based systems to police the output of any generative AI system. So far, the results are more than encouraging. We haven’t been able to catch our generative AI model in any lies for an entire week.”

“That’s super!” Blaine said.

“But I just got this.” Bastian pushed a letter on law firm letterhead across the table.

“You must cease and desist from infringing U.S. patent number 11,245,316 with your system and method for using multi-model consensus and integration with knowledge-based systems to control generative AI hallucination.”

It was signed “Tucker Dingle.”

“I know Tucker. We were in the same class in law school. He’s a badger. Under section 287(a), he has to give you notice before he can recover damages for infringement. Do you know who got this patent, who owns it—whom the Luludink, Eichner, and Floyd firm represents?”

“Do you remember Trey Mullins?”

“Vaguely. I think he was always hanging around with Tucker Dingle.”

“He’s a Beta. We were on the swim team together, and I can tell you he’s a complete snake, always hovering over people’s shoulders and appropriating their work as his own.”

“Let’s get this patent and look it over together.”

“Can we get it online?” Bastian asked, beginning to pull his computer out of his backpack.

“Absolutely. From either the patent office or Google Patents. Just type “google patents” in the search window and then enter the patent number.”

Bastian opened his laptop, swiftly tapped a few keys and said, “Okay. Here it is. Tell me what I’m looking at.”

“You’ve never seen a patent before?” Blaine said. “That’s odd for someone who fancies himself to be an inventor.”

“You told me to treat patents like poison,” Bastian said.

“I didn’t say that; I’ve got to make a living.” Blaine moved his chair around so that he was sitting beside Bastian, and both could easily see the computer screen. He pointed at different parts of the screen as he talked. “All this preliminary stuff tells us the name of the inventor, when the patent was applied for, by whom and whether he has assigned it. It does list Trey Mullins as the inventor and Tucker Dingle as the patent attorney. Several diagrams follow. You usually can’t make any sense out of those until you’ve read some of the text. Let me scroll down. This long portion is the detailed description of the patented invention. At the end of it are the claims, which formally define the scope of the patent. At the end are references to other patents. We don’t have to worry about those for now.”

“Wait a minute,” Bastian said. “Give me a chance to read the claims and then go back up to the detailed description.”

After only a few minutes reading the patent, Bastian said, “Damn! This almost completely overlaps with my invention.”

“You think Trey stole your ideas? Maybe your use of the nondisclosure agreement was not as complete as you thought.”

“No, no,” Bastian said. “I’d like to think that he stole it, but I think he came up with this independently. Everybody who has been working in this area has been focusing on multi-model consensus and integration with knowledge-based systems as two of the more promising avenues.”

“Hmm,” Blaine said.

“You mean that, after all we’ve done to protect the trade secret in my invention, Trey Mullins and Tucker Dingle are going to be able to stop me from benefiting from it? It feels like the sword of Damocles has been hanging over me and is now falling.”

“Ha ha,” Blaine said. “Do you know the story of the sword?”

“Well, not really. I hope there’s something reassuring in the longer story.”

“King Dionysius offered to swap places with his friend, Damocles, so Damocles could experience what it was like to be a king. The king left a sword hanging over the throne suspended by a single horsehair so that Dionysius could experience the precariousness of power.”

“Good Lord!” Bastian said. “I don’t hear anything reassuring in that. In extolling the virtues of trade secrets you did not mention ‘precariousness.’ I’m sorry I dredged up the metaphor.”

Blaine laughed. “It turns out you have a shield over your head between your head and the sword. It’s called section 273 of the Patent Act.”

“That’s a relief! Tell me about it.”

“I will, but you have to be diligent and industrious with your work to ensure that it covers you. You must actually commercialize your anti-hallucination scheme.”

* * *

Bastian, like other earlier inventors and innocent users of existing technology, need not fear that they will become infringers of a later issued patent if they use the technology publicly. Their public use represents prior art anticipating a later patent application and making it ineligible for patenting. The problem confronting the fictional Bastian arises only because he has protected his invention as a trade secret. Then his use is not prior art preventing the issuance of a subsequent patent such as the one issued to the fictional Trey Mullins. Indeed, the patent, by publicizing the content of the trade secret, extinguishes it.

Even if Trey’s patent did extinguish Bastian’s trade secret, however, Bastian remains free to practice the invention formerly covered by the trade secret unless he infringes the patent. That is likely, because the patent extinguishes the trade secret only if they are identical, and if they are identical, practicing the trade secret infringes the patent, *prima facie*.

But, section 273 of the Patent Act¹ privileges a prior user such as Bastian when he can show that his use has been commercialized. Section 273 codifies a long-standing prior user defense, which had been allowed to lapse with the enactment of the America Invents Act (AIA) and was then partially reintroduced as an antidote to a blizzard of business method patents.²

Part II summarizes the basic principles of patent law and of trade secret law. Part III explores the relationships between patent and trade-secret law, explaining that patent law does not foreclose trade secret protection although it prefers patent protection. Part IV considers whether a trade secret owner like the fictional Bastian can become an infringer of a patent issued to someone else. Part V evaluates the need for reform of the prior user defense.

1. 35 U.S.C. § 273.

2. *See infra* section IV.D (recounting the history of section 273).

II. THE LAW

A. Patent

The Patent and Copyright Clause of the United States Constitution³ authorizes Congress to establish a patent system. The first Congress did so, in the Patent Act of 1790.⁴ The basic requirements for the limited monopoly represented by a patent have changed very little in the last 235 years.⁵ Only inventions relating to processes, machines, manufactures, or compositions of matter are eligible for patent.⁶ To receive a patent, an invention must be novel.⁷ It must not be obvious,⁸ and the application must describe it with sufficient clarity and specificity such that someone else skilled in the art can make it and use it.⁹

Obviousness depends on (1) all of the elements of a patent claim being found in a plurality of prior art references and (2) on evidence that a skilled artisan would have a motivation to combine the teachings of the prior art references to achieve the claimed invention, and that he would have had a reasonable expectation of success in doing so.¹⁰ Interpreting *Graham v. John Deere Co.*,¹¹ The United States Patent and Trademark Office (USPTO) crystallized a “teaching-suggestion or motivation” (TSM) test for obviousness. In *KSR International Co. v. Telefax Inc.*,¹² the

3. U.S. CONST. art. I, § 8, cl. 8.

4. Patent Act of 1790, ch. 7, 1 Stat. 109-12.

5. The 1790 statute circumscribed patent eligibility to “art, manufacture, engine, machine, or device, or any improvement therein not before known or used,” *id.* at § 1. The current statute allows patents for “process, machine, manufacture, or composition of matter,” 35 U.S.C. § 101, 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.” 35 U.S.C. § 102.

In 1850, the Supreme Court decided, in *Hotchkiss v. Greenwood*, 52 U.S. 248 (1850), that novelty was not enough; an invention, to qualify for a patent must be the work of an “inventor,” not merely that of a “skillful mechanic.” 52 U.S. at 267 (affirming judgment invalidating a patent). The non-obviousness requirement of section 103, added by the 1952 Patent Act, Pub. L. 593, 66 Stat. 792 (July 19, 1952), revising and recodifying title 35, United States Code, codified the Hotchkiss requirement for an “invention.” See Giles S. Rich, *Why and How Section 103 Came to Be*, 14 FED. CIR. BAR J. 181 (2004-2005) (recounting the history and purpose of replacing the ambiguous “invention” standard).

6. 35 U.S.C. § 101.

7. 35 U.S.C. § 102.

8. 35 U.S.C. § 103.

9. 35 U.S.C. § 112.

10. *ImmunoGen, Inc. v. Vidal*, 653 F. Supp. 3d 258, 267 (E.D. Va. 2023). See MPEP (9th ed. Rev. 1, Nov. 2024) § 2142 (explaining the legal concept of prima facie obviousness); MPEP (9th ed. Rev. 1, Nov. 2024) § 2141(III)(A-G) (articulating seven KSR rationales for obviousness).

11. 383 U.S. 1 (1966).

12. 550 U.S. 398 (2007).

Supreme Court reversed the Federal Circuit for taking a “rigid approach”¹³ to TSR and articulated a more flexible, multi-factor test for obviousness under section 103.¹⁴

Novelty and non-obviousness depend upon comparing the new invention with prior art, previous patents, published applications, public disclosures, and sales.¹⁵ Any of those sources potentially defeat novelty or make the invention obvious. An inventor’s own disclosures can be prior art, negating his entitlement to a patent.¹⁶ The statute, however, affords inventors a one-year grace period, within which inventor disclosures are not disqualifying prior art.¹⁷

Innovation is an incremental process, and each invention, whether or not entitled to a patent, is simply the most recent in a series of innovations. The novelty and non-obviousness requirements insist that it be something new—a result of human ingenuity not only different in detail from what has come before, but also representative of creative inventorship.

Anticipation and obviousness are distinct, though related. Anticipation says someone else already invented it. Obviousness says no one invented it before, but your innovation is only a trivial contribution to the state of the art; it involves “matters of design well within the expected skill of the art and devoid of invention.”¹⁸ Despite the oft-repeated statement that “anticipation is the epitome of obviousness,” the two are distinct concepts, as the Federal Circuit said in *Cohesive Techs., Inc. v. Waters Corp.*¹⁹ Most significantly, “Obviousness can be proven by

13. *Id.* at 415. The Federal Circuit’s test for obviousness had depended on finding “‘teaching, suggestion, or motivation’ test (TSM) that encouraged combining prior art references.” *Id.* at 407 (characterizing the Federal Circuit’s test). It rejected obviousness based on a simple “obvious to try” standard. *Id.* at 414.

14. *Id.* at 419-21.

15. 35 U.S.C. § 102(a).

16. MPEP (9th ed. Rev 1, Nov. 2024) § 2133.02(I) (citing *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 149 (1989); MPEP (9th ed. Rev 1, Nov. 2024) § 2152.02(f) (noting that disclosures by the patent applicant may be disqualifying prior art). USPTO’s Manual of Patent Examining Procedure (MPEP) is published as a guide for patent examiners and patent applicants (MPEP foreword). While it does not have the force of law or constitute USPTO rules, it is generally regarded as authoritative regarding patent prosecution. The examination for registration as a patent attorney or agent is rooted in the MPEP.

17. 35 U.S.C. § 102(b); MPEP § 2152.02(f) (noting the disclosures by the patent applicant within the one-year grace period are not prior art); MPEP (9th ed. Rev 1, Nov. 2024) § 2153.01 (interpreting one-year grace period under 35 U.S.C. § 102(b)).

18. *Graham*, 383 U.S. at 22-23 (quoting the patent examiner making an obviousness rejection).

19. 543 F.3d 1351, 1363-64 (Fed. Cir. 2008).

combining existing prior art references, while anticipation requires all elements of a claim to be disclosed within a single reference.”²⁰ Secondary considerations are relevant to obviousness, but not to anticipation.²¹

Under pre-AIA law, a first inventor’s activity could result in denial of a patent to a second inventor in a number of different ways. If the first inventor had publicized his invention, it became prior art and, under the former section 102(b),²² defeated novelty for the second invention or, along with other references, made the second invention obvious.

Second, the existence of the first invention calls into question whether the second purported inventor really invented anything. Certainly, if he merely copied the first invention, the answer was “no,” and he was disqualified under the language, “Whoever invents or discovers . . . may obtain a patent therefor.”²³

Third, if both inventors sought patents, an interference proceeding could result, designating one of the two inventions as senior to the other and therefore entitled to a patent while disqualifying the junior inventor from a patent.²⁴

Trade secrets did not have this effect because they were, by the nature of a trade secret, actively concealed or suppressed and therefore disqualified from senior status under section 102(g).²⁵

The America Invents Act of 2013 switched the United States from its first-to-invent system, nearly unique in the world, to align the United States with the rest of the world’s first-inventor-to-file system. The AIA did not, however, change the basic law of novelty, obviousness, or disclosure. It also did not change the one-year grace period, but it did enlarge the scope of prior art.²⁶

One commentator characterized the AIA this way:

Although the statute was aimed at patent reform, it made three helpful changes in how trade secrets are treated. First, companies

20. *Id.* at 1364.

21. *Id.*; MPEP (9th ed. Rev 1, Nov. 2024) § 2131.04 (explaining secondary considerations irrelevant to anticipation).

22. 35 U.S.C. § 102(b) (2010).

23. 35 U.S.C. § 101.

24. 35 U.S.C. § 135(a) (2010) (providing for notice to parties and determination of priority and patentability by Board of Patent Appeals and Interferences; adverse determinations amount to a rejection of claims and the director may issue patent to the prior inventor).

25. 35 U.S.C. § 102(g) (2010).

26. The AIA did enlarge prior art by covering foreign patent *applications*, published later, going by the date of the application. It also expanded prior art to include any form of public disclosure, not just publications and patents. *See Leahy-Smith America Invents Act*, Pub. L. No. 112-29, 125 Stat. 284 (2011).

could hold onto secret information about an invention without risking invalidation of their patents for failing to disclose the “best mode” of implementing it. Second, the “prior user right” that guarantees continuing use of a secret invention, even if someone else later patents it, was extended to cover all technologies. And third, the law would no longer deny a patent simply because the inventor had already commercialized the invention in a way that didn’t reveal it to the public.²⁷

Under the AIA, the fictional Bastian no longer has the possibility of invalidating Trey’s patent by showing that Bastian invented first. Rather Trey’s patent has priority if he applied first—so long as he is an actual inventor, which he appears to be, because he did not copy anything from Bastian or anybody else.

Under the AIA, regardless of who invented first, whoever files first can establish infringement by another who practices the patented invention. One infringes a patent if she, without authority, makes, uses, imports, offers to sell, or sells the patented invention.²⁸

The infringer need not have copied the patented invention or even know about it. This distinguishes patent infringement from copyright infringement²⁹ and trade secret misappropriation.³⁰

Patent infringement may be proven by showing literal infringement of every limitation recited in a claim or by showing infringement under the doctrine of equivalents. Both literal infringement and infringement under the doctrine of equivalents require an element-by-element comparison of the patented invention to the accused device. When the patented invention is being compared to the accused device under the doctrine of equivalents, the court should consider “whether a substitute element matches the function, way,

27. James Pooley, *Of Secret Sales and Public Uses: The Practical Consequences of the Supreme Court’s Helsinn Decision*, IPWATCHDOG (Feb. 21, 2019, 5:15 PM), <https://ipwatchdog.com/2019/02/21/practical-consequences-supreme-courts-helsinn-decision/id=106587/>.

28. 35 U.S.C. § 271(a) (“whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent”).

29. 17 U.S.C. § 501(a) (violation of exclusive rights conferred by section 106 and other provisions); § 106 (defining six exclusive rights belonging to a copyright owner, such as reproduction, preparation of derivative works, public distribution, public display, and public performance), held invalid by *Nat’l Ass’n of Bds. of Pharmacy v. Bd. of Regents of the Univ. Sys. of Ga.*, 633 F.3d 1297, 1313-15 (11th Cir. 2011).

30. Uniform Trade Secrets Act § 1(2) (1985); Defend Trade Secrets Act, 18 U.S.C. § 1832(a) (2016) (defining trade secrets misappropriation).

and result of the claimed element, or whether the substitute element plays a role substantially different from the claimed element.”³¹

Proof of willful infringement entitles the plaintiff to treble damages.³² To state a claim of willfulness, a plaintiff must plausibly allege that (1) the infringer had knowledge of the patent at the time of infringement and (2) deliberately infringed it.³³

Patents last for twenty years from the date of application.³⁴ Thereafter, anyone is free to use the patented subject matter because it is in the public domain.³⁵

Once a patent is issued, it is subject to review and amendment or cancellation in a variety of proceedings. In a reissuance, the inventor or other owner of the patent surrenders the original patent and tries to get a new one to correct errors in the original patent.³⁶ In a reexamination proceeding, which may be triggered by the patent owner or a third party, the patent office considers new information that raises questions about patentability.³⁷ In post-grant review, available for only nine months after patent issuance, anyone can challenge the validity of the patent on any ground that it could have resulted in its denial during the prosecution process.³⁸ In inter partes review, anyone can challenge the validity of a patent, but on more limited grounds, offering only prior art in the form of patents or publications raising questions about novelty and obviousness.³⁹ Inter partes review is available beginning nine months after issuance of the patent and until the patent expires.⁴⁰ Post-grant review and inter partes review proceedings are conducted by the Patent Trial and Appeal Board (PTAB).⁴¹

31. *Regents of Univ. of Cal. v. Dako N. America, Inc.*, 615 F. Supp. 2d 1087, 1091 (N.D. Cal. 2009).

32. 35 U.S.C. § 284; *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 579 U.S. 93, 93-94, 97-100, 103 (2016) (reversing Federal Circuit and articulating flexible test for “egregious” infringing conduct).

33. *Longhorn Vaccines & Diagnostics, LLC v. Spectrum Sols., LLC*, 564 F. Supp. 3d 1126, 1134 (D. Utah 2021) (granting some and denying other motions to dismiss willful infringement claims).

34. 35 U.S.C. § 154(a)(2).

35. *Singer Mfg. Co. v. June Mfg. Co.*, 163 U.S. 169, 169, 185 (1896); *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 230 (1964).

36. 35 U.S.C. § 251 (authorizing reissue of “defective patents”).

37. 35 U.S.C. §§ 302-305 (authorizing reexamination).

38. 35 U.S.C. §§ 321-329 (authorizing post-grant review).

39. 35 U.S.C. §§ 311-319 (authorizing inter partes review).

40. 35 U.S.C. § 311(c).

41. 35 U.S.C. § 318 (role of PTAB in deciding IPR cases); § 328 (role of PTAB in deciding PGR cases).

In addition to these administrative processes, United States district courts have the power to determine the validity of patents asserted in suits for infringement⁴² or in declaratory judgment actions brought by potential infringers.⁴³

B. *Trade Secrets*

A trade secret is any information that confers a competitive advantage in the marketplace by virtue of not being generally known, as long as it is accompanied by reasonable efforts to keep it secret.⁴⁴

A number of differences distinguish trade secrets from patents. Patent subject matter is limited by statutory criteria, novelty, and non-obviousness requirements. Almost anything can be a trade secret, even if obvious or not novel.⁴⁵

Patents exist only if they are granted by the United States Patent and Trademark Office after a laborious and expensive examination process,⁴⁶ running into the tens of thousands of dollars in the simplest cases and taking years. Trademarks arise automatically and necessitate no application or registration with any governmental or private entity. An inventor who uses trade secret protection instead of seeking a patent saves tens of thousands of dollars and multi-year delays involved in seeking a patent, which in the end may not be granted despite the investment in the application.

Patents protect against innocent inventors—parties who independently come up with the same idea covered by the patent. Trade secrets do not; liability for trade secret misappropriation requires that the trade secret owner establish “misappropriation,” involving some breach of confidence, violation of a commitment to maintain the secret,⁴⁷ or improper means such as unlawful entry or unlawful electronic surveillance.⁴⁸

Patents last for twenty years. The duration of a trade secret is indefinite; it may be close to permanent as in the case of Coca-Cola, or it

42. 35 U.S.C. § 282.

43. *See* *Medimmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 127 (2007) (explaining the prerequisites to maintaining declaratory judgment action to invalidate a patent).

44. HENRY H. PERRITT, JR., *TRADE SECRETS FOR THE PRACTITIONER* ch. 1 (3d ed. 2024).

45. *See id.* at ch. 5 (explaining that trade secrets must be distinctive, but need not be novel or non-obvious).

46. *See* MPEP (9th ed. Rev 1, Nov. 2024) §§ 700 and 2100 (setting forth details of the patent examining process).

47. PERRITT, *supra* note 44, at ch. 6 (misappropriation by those in privity with trade secret owner).

48. *Id.* at ch. 7 (misappropriation by strangers).

may be very short-term indeed if a misappropriator makes a trade secret public, someone reverse engineers the trade secret and makes it public, or someone independently develops the same information.⁴⁹

Trade secrets are vulnerable to reverse engineering.⁵⁰ Patents are not because the reverse engineer is still excluded from practicing the patent without the permission of the patent owner.⁵¹

Patents are public; indeed one of the policy justifications for the patent monopoly is to encourage the fruits of invention to be made available to the public and eventually put into the public domain.⁵² Trade secrets obviously are not public if they continue to exist.

These differences cause large segments of modern economies to prefer trade secret protection over patent protection, while others in the same economies prefer patents over trade secrets.⁵³ The attractiveness of trade secrets over patents is greater when the likelihood of reverse engineering is low, when the trade secrets behind a product or service need not be disclosed when the market or service is commercialized, and when the pace of innovation is high, making it unlikely that market participants can keep up with technology with a series of patents, given the delays in their issuance.⁵⁴

49. *Id.* at ch. 4 (analyzing ways in which secrecy can be lost).

50. Defend Trade Secrets Act, 18 U.S.C. § 1839(6) (privileging reverse engineering); *La Potencia, LLC v. Chandler*, 733 F. Supp. 3d 1238, 1274, 1277 (S.D. Fla. 2024) (explaining that actual reverse engineering is a defense to claim of trade-secret misappropriation but that hypothetical reverse engineering is not; granting preliminary injunction to plaintiff).

The ease of reverse engineering, however, may be relevant to whether information constitutes a trade secret. *Walker Mfg., Inc. v. Hoffman, Inc.*, 261 F. Supp. 1054, 1080-82 (N.D. Iowa 2003) (stating the proposition and explaining rationale for it). Easy reverse engineering defeats the secrecy element and means that possession of the alleged trade secret confers no competitive advantage vis-à-vis the potential reverse engineer.

51. See *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1333 (Fed. Cir. 2016) (holding that reverse engineering can evidence willful patent infringement).

52. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-81 (1974) (explaining the purpose of patent law as protection and expansion of public domain).

53. Nathan Wajman & Francisco Garcia-Valero, *Protecting Innovation Through Trade Secrets and Patents: Determinants for European Union Firms*, EU INTELLECTUAL PROPERTY OFFICE, 28 (July 2017), https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/Trade%20Secrets%20Report_en.pdf [hereinafter *EU Study*] (“use of the trade secrets is clearly higher than the use of patents in every Member State, ranging from about one third higher use of trade secrets in Italy to nearly three times in Croatia”); Andrew A. Schwartz, *The Corporate Preference for Trade Secret*, 74 OHIO ST. L. J. 623, 658-59 (2013) (reviewing empirical literature and synthesizing the conclusion that corporations prefer trade secrets over patents).

54. See David S. Levine & Ted Sichelman, *Why Do Startups Use Trade Secrets?*, 94 NOTRE DAME L. REV. 751, 756-76 (Dec. 2018) (comparing reasons for preferring trade secret or patent protection); *EU Study* at 57 (finding that “market novelty and innovation in goods are

Foley & Lardner LLP suggest four questions to shape an enterprise's choice between patent and trade secret:

Would patents meaningfully alter competitors' behavior? If a patent is necessary to compete in the market or if a high demand for licensing it is expected, patent is preferable. If the likely amount of damages for infringement is low, or if rapid incremental innovation is expected, trade secret is better.

How easy is it for a motivated competitor to figure out how the invention works?

How much effort is required to show that a competitor is infringing patent?

Do impediments to maintaining the confidentiality exist for as long as the invention is valuable?⁵⁵

From a public policy perspective, trade secret protection allows robust competition in the marketplace for innovation; a trade secret has no depressing effect because it is unknown. Patents, however, tend to depress innovation in their subject area because potential innovators do not want to risk infringing. Moreover trade secret owners are not protected against reverse engineering, and so a creative competitor can reverse engineer a trade secret and enter the market immediately without having to wait for a patent to expire to make use of what the patent discloses.⁵⁶

Trade secrets may increase the *ex ante* incentive to invent because they are more valuable to some inventors, compared to patents. This comparative value advantage stems from avoidance of the costs of seeking a patent and from the possibility that concealing the invention from competitors altogether may be a more effective means of excluding them from the market and trying to enforce a patent.⁵⁷

associated with a preference for patents while process innovations and innovations in services are more often protected through secrecy"); Schwartz, *supra* note 53, at 637-46 (enumerating the factors involved in choosing between trade secrets and patents).

55. Shabbi S. Khan, Robert C. Okonowski & Nikhil T. Pradhan, *Patent vs. Trade Secret Strategy: A Four Factor Decision Framework*, FOLEY & LARDNER LLP, (Dec. 14, 2021), <https://www.foley.com/insights/publications/2021/12/patent-vs-trade-secret-strategy-4-factor-decision/> (offering four factors to influence the choice between trade secrets and patents).

56. J. Jonas Anderson, *Secret Inventions*, 26 BERKELY TECH. & L. J. 917, 920 (spring 2011).

57. *Id.* at 920-21.

Now, the arguments that patents increase the transparency of AI inventions, a goal sought by those concerned about the risks of AI, may alter the policy preference back in favor of patents, somewhat.⁵⁸

III. BASIC LEGAL RELATIONSHIPS BETWEEN TRADE SECRETS AND PATENTS

To make sense of the case law and analysis that follows, one must distinguish three different legal issues:

When is an inventor disqualified from receiving a patent because of his own prior activity?

When is an inventor disqualified from receiving a patent because of the prior activities of others?

When is a prior inventor disqualified from using his invention by the issuance of a patent to a later inventor?

In each of these three questions, prior activity or prior invention may involve the assertion of trade secrets.

The first question implicates the public use and on-sale disqualifiers of section 102(a)⁵⁹ and the former section 102(b),⁶⁰ and also implicates the determination that one should not be able to combine trade secret protection with patent protection so as to extend the twenty-year period of a patent.⁶¹

The second question also implicates the public use and on-sale disqualifiers, but here, the issue is not the behavior of the patent seeker, but the novelty of his invention.

The third question, like the first, implicates whether patents should be preferred over trade secrets, but it introduces the rights of an innocent inventor other than one seeking a patent.

Understanding the legal framework also benefits from understanding the restructuring of section 102 worked by AIA. After enactment of AIA, section 102(a) contains all of the prior art disqualifiers: public use, on-sale, prior patents, prior patent publications, and other

58. See Henry H. Perritt, Jr., *Undressing AI: Transparency Through Patents*, 33 TEXAS INTEL. PROP. L. J 137, 141 (Jan. 2025).

59. 35 U.S.C. § 102(a).

60. 35 U.S.C. § 102(b) (2010).

61. See *Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 520 (2d Cir. 1946); *Egbert v. Lippmann*, 104 U.S. 333, 334-37 (1881); *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55, 67 (1998); *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1548-49 (Fed. Cir. 1983).

publications.⁶² The pre-AIA version of section 102 divided the prior art disqualifiers among three subsections. Subsection (a) contained the patent and printed publication categories, and applied those categories of prior art before *invention*; subsection (b) added public use and on-sale categories, but only if they were in the United States, and applied them before *application* for a patent.⁶³ AIA recognizes the one-year grace period in subsection (b).⁶⁴ The one-year grace period appears in subsection (b) of the pre-AIA statute.

Subsection (g) in the pre-AIA statute⁶⁵ addressed priority between different inventors.⁶⁶

Despite the textual reorganization, the meaning of the public use and on-sale doctrines was unaffected by the enactment of the AIA.⁶⁷

Of course, other changes in the structure of section 102 reflected the movement from first-to-invent to first-inventor-to-file as the standard for patent issuance and the demise of interference proceedings.⁶⁸

A. *Patent Law Does not Prohibit Maintaining and Enforcing Trade Secrets*

An inventor is free to choose either trade secrets law or patent law to protect an invention.

62. 35 U.S.C. § 102(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.”

63. 35 U.S.C. § 102(a)-(b) (2010): “A person shall be entitled to a patent unless—(a) the invention was 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, or (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.” [emphasis added].

64. 35 U.S.C. § 102(b).

65. There is no subsection (g) in the AIA version of section 102.

66. 35 U.S.C. § 102(g) (2010): “(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 *abandoned, suppressed, or concealed*, or (2) before such person’s invention thereof, the invention was made in this country by another inventor who had not *abandoned, suppressed, or concealed* it. . . .” [emphasis added].

67. See *Helsinn Healthcare S.A. v. Teva Pharmaceuticals USA, Inc.*, 586 U.S. 123, 125-26 (2019) (holding that AIA effected no change in prior art law).

68. See Eric A. Kelly, *Is the Prototypical Small Inventor at Risk of Inadvertently Eliminating Their Traditional One-Year Grace Period Under the America Invents Act?—Interpreting “Or Otherwise Available to the Public” per New § 102(a) and “Disclosure” per New § 102(b)*, 21 TEX. INTELL. PROP. L. J. 373, 395 (2013) (analyzing changes in section 102 made by AIA).

In *Kewanee Oil v. Bicron Corporation*,⁶⁹ defendants in a trade secrets misappropriation action argued that trade secrets protection is preempted by federal patent law. The Sixth Circuit, recognizing its disagreement with other circuits, held that

a state trade secret law which protects an inventor in the maintenance of a monopoly of a device which is an appropriate subject for patent . . . is in conflict with the policies and purposes of those patent laws where the invention has been used commercially for more than one year.⁷⁰

The Supreme Court reversed.⁷¹ While it allowed trade secrets and patent law to coexist, it reiterated the generally held idea that federal policy and one of the purposes of the patent laws is to encourage inventors to give up their trade secrets and apply for patents.⁷²

A district court reiterated the point:

We emphasize at the outset that although § 102(g) prior art must be somehow made available to the public in order to defeat another patent, a § 102(g) prior inventor is under no obligation to file a patent application. Thus, while Merck's failure to file a patent application may be relevant to a determination whether it suppressed or concealed its process, especially if there were evidence that such failure was based on a decision to retain the invention as a trade secret, that failure alone does not satisfy the patentee's burden of producing evidence sufficient to create a genuine issue of material fact of suppression or concealment.⁷³

In *W.L. Gore & Associates, v. Garlock, Inc.*⁷⁴ the Federal Circuit distinguished third-party secret use from a patent applicant's use:

There is no reason or statutory basis, however, on which Budd's and Cropper's secret commercialization of a process, if established, could be held a bar to the grant of a patent to Gore on that process. Early public disclosure is a linchpin of the patent system. As between a prior inventor who benefits from a process by selling its

69. *Kewanee Oil*, 416 U.S. at 474.

70. *Kewanee Oil Co. v. Bicron Corp.*, 478 F.2d 1074, 1086 (6th Cir. 1973), rev'd, 416 U.S. 470 (1974).

71. *Kewanee Oil*, 416 U.S. at 474.

72. *Id.* at 491. See Anderson, *supra* note 56, at 928-35 (2011) (noting law's bias in favor of patents and against trade secrets).

73. *Apotex USA, Inc. v. Merck & Co., Inc.*, 254 F.3d 1031, 1039 (Fed. Cir. 2001) (internal citation omitted).

74. *W.L. Gore*, 721 F.2d at 1550.

product but suppresses, conceals, or otherwise keeps the process from the public, and a later inventor who promptly files a patent application from which the public will gain a disclosure of the process, the law favors the latter.⁷⁵

When an earlier inventor makes no effort to assert a trade secret, however, the earlier use is prior art.⁷⁶

In *BASF Corporation v. SNF Holding Company*,⁷⁷ the Federal Circuit rejected the idea that “public use under § 102(b) requires a finding that the public was made aware of every limitation of the claimed process,”⁷⁸ and found triable issues of fact on whether an earlier use qualified as prior art under then Section 102(b):

[W]e have identified factors which may, in a given case, prove relevant: the nature of the activity that occurred in public, public access to and knowledge of the public use, existence of an actual or implied confidentiality obligation, and the relevant skill and knowledge of observers. A factfinder would be entitled to make reasonable inferences about these activities in deciding whether Celanese’s use of the Sanwet Process was a public use, and summary judgment is therefore improper.⁷⁹

B. But Trade Secrets Are Disfavored

Patent law allows trade secrets, but it disfavors them⁸⁰ with the public use and on-sale bars of section 102(a). The public use bar prevents a patentee from unfairly extending the period of its exclusivity on the invention, which could thereby hold back the progress of the sciences. As early as 1829, the Supreme Court expressed this sentiment by stating:

If an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention; if he should for a long period of years retain the monopoly, and make, and sell his invention publicly, and thus gather the whole profits of it, relying upon his superior skill and knowledge of the structure, and then, and then only, when the danger of competition should force him to secure the

75. *Id.*

76. *Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1334-35 (Fed. Cir. 2005) (distinguishing *Gore*, and reversing finding of concealment and suppression under 102(b) negating prior art status).

77. *BASF Corp. v. SNF Holding Co.*, 955 F.3d 958, 966-67 (Fed. Cir. 2020).

78. *Id.*

79. *Id.* at 967 (internal citations and parentheses omitted).

80. *Anderson*, *supra* note 56, at 928-32 (describing anti-secrecy rhetoric and doctrine).

exclusive right, he should be allowed to take out a patent and thus exclude the public from any further use than what should be derived under it during his fourteen years, it would materially retard the progress of science and the useful arts and give a premium to those who should be least prompt to communicate their discoveries.

A provision, therefore, that should withhold from an inventor the privilege of an exclusive right unless he should, as early as he should allow the public use, put the public in possession of his secret and commence the running of the period that should limit that right would not be deemed unreasonable.⁸¹

Helsinn says that the on-sale bar exists to prevent inventors from tacking patent protection on top of trade secret protection.⁸²

In *American Seating Co. v. USSC Group, Inc.*,⁸³ the court said:

“The purpose of the public use bar to patentability is to discourage “the removal of inventions from the public domain which the public justifiably comes to believe are freely available.

Whether a patent is invalid for public use is a question of law based on underlying facts. The test for whether an invention is ineligible for a patent due to the section 102(b) public use bar “is whether the purported use: (1) was accessible to the public; or (2) was commercially exploited.

Consideration of public use includes analysis of, *inter alia*, the nature of and public access to activities involving the invention; confidentiality obligations imposed upon observers; commercial exploitation; and the circumstances surrounding testing and experimentation.

An invention is in public use if it is shown to or used by an individual other than the inventor under no limitation, restriction, or obligation of confidentiality. However, “use of an invention by the inventor himself, or of any other person under his direction, by way of experiment, and in order to bring the invention to perfection, has never been regarded as such a use.”⁸⁴

81. *Pennock v. Dialogue*, 27 U.S. 1, 19-20 (1829) (affirming finding of patent invalidity for public use under the original patent statute that did not provide for a grace period).

82. *See Celanese Int’l. Corp. v. Int’l. Trade Comm’n.*, 111 F.4th 1338, 1344-46 (Fed. Cir. 2024), *cert. denied*, No. 24-635, 2025 WL 1211791, at *1 (2025) (reiterating *Helsinn*’s holding that AIA did not change on-sale bar’s application regardless of public nature of sale).

83. *Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262, 1267 (Fed. Cir. 2008).

84. *Id.* (internal citations omitted).

C. *Long-Term Trade Secrets Are Not Eligible for Patents*

Maintaining a trade secret may deprive an inventor of a patent. In *W.L. Gore & Associates. v. Garlock, Inc.*⁸⁵ the Federal Circuit agreed with the district court that one claim of the patent in issue was invalid because it was anticipated by the inventor's own use for more than the grace period.⁸⁶

Judge Learned Hand articulated the rationale behind commercial sales, even if secret, divesting one of the power to obtain a patent in *Metallizing Engineering Co., v. Kenyon Bearing and Auto Parts Co.*⁸⁷ He quoted the Supreme Court in *Pennock v. Dialogue*⁸⁸: "If the public, with the knowledge and tacit consent of the inventor, be permitted to use the invention, without opposition, it is a fraud on the public afterwards to take out a patent."⁸⁹ He noted that the facts in *Pennock* were such that the sale did not disclose the details of the invention.⁹⁰ Other cases, he thought, reached the same conclusion: "In *Egbert v. Lippmann*, although the patent was for the product which was sold, nothing could be learned about it without taking it apart, yet it was a public use within the statute. In *Hall v. Macneale*, the situation was the same."⁹¹

In repudiating two of his own earlier opinions, he said,

it appears that in *Peerless Roll Leaf Co. v. Griffin & Sons*, we confused two separate doctrines: (1) The effect upon his right to a patent of the inventor's competitive exploitation of his machine or of his process; (2) the contribution which a prior use by another person makes to the art. Both do indeed come within the phrase, "prior use"; but the first is a defence for quite different reasons from the second.⁹²

The first effect

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. It is

85. *W.L. Gore*, 721 F.2d at 1549.

86. *Id.*

87. *Metallizing Engineering*, 153 F.2d at 518. The *Metallizing Engineering* holding sometimes is referred to as a "forfeiture doctrine." Daniel Taskalos, *Metallizing Engineering's Forfeiture Doctrine After the America Invents Act*, 16 STAN. L. REV. 657, 664 (2013) (analyzing the "forfeiture doctrine" of *Metallizing Engineering*; justifying retention of doctrine).

88. *Pennock*, 27 U.S. at 4.

89. *Metallizing Engineering*, 153 F.2d at 518 (quoting *Pennock*, 27 U.S. at 4).

90. *Id.*

91. *Id.* (internal citations omitted).

92. *Id.* at 519-520 (internal citation omitted).

true that for the limited period of two years he was allowed to do so, possibly in order to give him time to prepare an application; and even that has been recently cut down by half. But if he goes beyond that period of probation, he forfeits his right regardless of how little the public may have learned about the invention; just as he can forfeit it by too long concealment, even without exploiting the invention at all.⁹³ . . .

It is indeed true that an inventor may continue for more than a year to practice his invention for his private purposes or his own enjoyment and later patent it. But that is, properly considered, not an exception to the doctrine, for he is not then making use of his secret to gain a competitive advantage over others; he does not thereby extend the period of his monopoly. Besides, as we have seen, even that privilege has its limits, for he may conceal it so long that he will lose his right to a patent even though he does not use it at all.⁹⁴

Notably, he said nothing about the second effect of secret use, the status of such secret use as prior art. The implication is that secret use or sale is not prior art. None of the rationale for the *Metallizing Engineering* result applies to the prior art context when the alleged prior is that of another. *Metallizing Engineering* disfavors trying to have your cake and eat it too—benefitting from both trade-secret and patent protection. Whether a trade secret is prior art implicates the question of whether the trade secret was in the public domain, meaning that granting a patent on the same subject matter would subtract from the public domain—the foundational rationale for the novelty and non-obviousness requirements.

The evil here is stacking patent protection on top of trade secret protection. When stacking is involved—when public use or on-sale by the patent applicant disqualifiers are at issue—actual public knowledge does not matter. That is the holding of *Helsinn*. In *Helsinn Healthcare S.A. v. Teva Pharmaceuticals USA, Inc.*,⁹⁵ the Supreme Court reiterated the holding of *Pfaff v. Wells Electronics*,⁹⁶ that the on-sale bar applies even to sales that do not make the details of an invention public.⁹⁷ *Helsinn* held that the AIA did not alter that conclusion⁹⁸:

93. *Id.* at 520.

94. *Id.* at 520.

95. *Helsinn*, 586 U.S. at 125-26.

96. *Pfaff*, 525 U.S. at 67-68.

97. *Id.*

98. 586 U.S. at 132.

We granted certiorari to determine whether, under the AIA, an inventor's sale of an invention to a third party who is obligated to keep the invention confidential qualifies as prior art for purposes of determining the patentability of the invention. We conclude that such a sale can qualify as prior art.⁹⁹

Helsinn, itself, is a brief opinion. For reasoning supporting the conclusion, one must look at the cases embraced by *Helsinn: Pfaff, Special Devices, Inc. v. OEA, Inc.*,¹⁰⁰ and *Woodland Trust v. Flowertree Nursery, Inc.*¹⁰¹

D. Trade Secrets Are not Prior Art

Section 102(a)(1) defines prior art to include “public use,” “on sale,” or “otherwise available to the public.”¹⁰²

The public use basis for denying or invalidating a patent requires proof of actual use when the use is by one other than the patent applicant.¹⁰³ This distinguishes third party use from prior use by a patent

99. *Id.* at 128-129 (internal citation omitted). Some people disagreed with the Court and believed that Congressional intent was to change the rule:

The insertion in the AIA of the phrase ‘or otherwise available to the public’ indicated that Congress intended to change this rule and to provide that only uses or sales that informed the public of the invention would bar a patent. This seemed apparent just from normal standards for interpreting English, in which ‘otherwise’ should be understood to refer to the terms coming before it. In addition, during consideration of the legislation, sponsors of the bill had taken the floor of the Senate to express their views that the new phrase would have the effect of limiting patent forfeiture to situations where the public had been informed of the invention and not just enjoyed its outputs.

Pooley, *supra* note 27.

100. 270 F.3d 1353, 1357 (2001) (invalidating patent claims based on “sales for the purpose of the commercial stockpiling of an invention” that “took place in secret”).

101. 148 F.3d 1368, 1370, 1373 (1998) (reversing judgment of invalidity; oral evidence regarding events long before, standing alone, did not provide the clear and convincing evidence necessary to invalidate a patent on the ground of prior knowledge and use under § 102(a)).

102. 35 U.S.C. § 102(a)(1). The subsection does not explicitly define prior art, but it states a condition subsequent for patentability.

103. *International Business Machines Corporation v. Priceline Group Inc.*, 217 F. Supp. 3d 667, 681 (D. Del. 2017) (evidence that system could have been used is insufficient; rather, actual use must be proved; granting patentee summary judgment dismissing one of the accused infringer's public use invalidity defenses); *Netscape Commc'ns Corp. v. Valueclick, Inc.*, 684 F. Supp. 2d 699, 720 (E.D. Va. 2010) (granting summary judgment, dismissing accused infringer's public use challenge since the accused infringer failed to proffer admissible evidence showing use of a version of the web browser that contained the patented functionality), reconsidered in part by *Netscape Commc'ns Corp. v. ValueClick, Inc.* 704 F. Supp. 2d 544 (E.D. Va. 2010).

seeker. In their 2021 article,¹⁰⁴ Camilla Hrdy and Sharon Sandeen explore the congruence between trade secret status and status as prior art under sections 102¹⁰⁵ and 103¹⁰⁶ of the patent act. They lament the lack of a satisfactory theory for “what it means for a prior art reference to be public,”¹⁰⁷ and suggest that the standard for trade secrets supplies such a theory.¹⁰⁸ Their analysis of the decided prior art cases shows that courts draw on trade secret standards and usually conclude that “if a reference does qualify as a trade secret, courts tend to consider it non-public and not part of the prior art.”¹⁰⁹ The exceptions, they explain, mainly relate to the policy of preventing inventors from stacking trade-secret and patent protection,¹¹⁰ or to experimental grace period use.¹¹¹

A trade secret is not public or available to the public. Under the control of a third party, without involvement by the patent seeker, it is not prior art unless the use reveals the trade secret, making it public. Whether commercialization of a trade secret causes the trade secret to become prior art can be understood by comparing four examples. The classic example of a long-term trade secret is the formula for Coca-Cola, which was invented in 1886¹¹² and has remained secret to this day. It does not become public when bottles or cans of Coca-Cola are shipped to distributors or retailers or bought by consumers. It does not become public when a consumer removes the top of a bottle or pops open the can and drinks the Coca-Cola inside. Everyone in the distribution chain remains ignorant of the formula.¹¹³

Likewise, if Bastian Wood were successfully commercialize his hallucination controller invention successfully, that commercialization would not make his trade secret public because making the generative AI engine available with Bastian’s new feature would not reveal the machine learning strategies or resulting algorithms that made up its invention.

104. See generally Camilla A. Hrdy & Sharon K. Sandeen, *The Trade Secrecy Standard for Patent Prior Art*, 70 AMER. U. L. REV. 1269 (2021).

105. 35 U.S.C. § 102.

106. 35 U.S.C. § 103.

107. Hrdy & Sandeen, *supra* note 104 at 1273.

108. *Id.* at 1273-1275.

109. *Id.* at 1273.

110. *Id.* at 1274; 1308-1313 (explaining that *Metallizing Engineering* is not about publicness).

111. Hrdy & Sandeen, *supra* note 104 at 1307-1308 (discussing experimental use).

112. History, COCA-COLA, <https://www.coca-colacompany.com/about-us/history>.

113. See *Coca-Cola Bottling Co. v. Coca-Cola Co.*, 107 F.R.D. 288, 289 (D.Del.1985) (referring to the formula for Coca-Cola as “one of the bestkept trade secrets in the world,” successfully protected as trade secret since Coca-Cola was first invented and known by only two people in the company).

Similarly, if the author had kept his Robocowboy invention secret rather than obtaining U.S. patent no. 12,102,060 on it, commercialization of the Robocowboy would not make the trade secret public because a rancher could use the Robocowboy to herd cattle without learning the details of its internal hardware, software and algorithms.

Conversely, use of the invention behind the author's Line Lifter patent, U.S. patent no. 12,119,626, would extinguish the trade secret, had a patent not been sought, and make the invention prior art. One cannot use the Line Lifter without coming to know that it involves using a small consumer drone to pull a pilot line from an ordinary fly fishing reel anchored to the ground, lifting it over a support element, landing the drone, and then pulling a payload line by hand after attaching it to the pilot line.

Similarly, an innovative connector for radio antenna could be maintained as a trade secret by the inventor, but once it is commercialized, everyone who buys it or distributes it can discern its nature.

These distinctions illustrate the concept of a *non-informing use*. In *W.L. Gore & Associates. v. Garlock, Inc.*,¹¹⁴ the evidence showed sales in the U.S. of a trade-secreted machine resembling the patented invention. Looking at the machine did not reveal how it worked. The Federal Circuit reversed the district court and held that the trade secret was not anticipatory under then section 102(b) because "there was no evidence, that the public could learn the claimed process by examining the tape."¹¹⁵

A non-disclosing prior use by the inventor is a bar to patentability; a prior use by another is not a bar unless it discloses the invention to the public. When third party use or sale is at issue, public knowledge does matter. In *Woodland Trust v. Flowertree Nursery, Inc.*,¹¹⁶ cited approvingly by the Supreme Court in *Helsinn*, the Federal Circuit said, "[W]hen an asserted prior use is not that of the applicant, § 102(b) is not a bar when that prior use or knowledge is not available to the public."¹¹⁷

Discussing the the reasons for denying the defendant's motion concerning invalidity, the Court stated:

Defendant's response to these concerns is that the prior inventor need not divulge the 'innards' of the invention to the public to be public use. This argument largely mirrors their argument under § 102(g), and the Court rejects it for similar reasons. To support their

114. 721 F.3d 1554 (Fed. Cir. 1983).

115. 721 F.3d at 1550.

116. 148 F.3d 1368, 1371 (1998).

117. 148 F.3d at 1371.

argument, Defendant again cites to *Friction Div. Prods., Inc. v. E.I. DuPont de Nemours & Co.* However, again, the Federal Circuit has not adopted the distinction relied on by the Defendant. Furthermore, Defendant's citation to *Lockwood v. American Airlines, Inc.* is also unavailing. *Lockwood* held that the defendant's "public use of the high-level aspects of the [prior invention] was enough to place the *claimed* features of the [patent in question] in the public's possession." That principle is not inconsistent with the reasoning here. The distinction here is that there was enough evidence for a reasonable jury to find that the prior inventors high-level disclosure of the prior invention did not place the claimed features of the '730 in the public's possession because key *claimed* features were not displayed/disseminated/discussed. Thus, the opposite conclusion—that the claimed features were not in public use before the critical date—was justified and supports the verdict.¹¹⁸

The distinction between a patent seeker's secret exploitation and exploitation by a third party trade secret owner is reinforced by the interpretation of the interference section of the pre-AIA section 102(g):

Secret commercialization by a person other than the patentee will not raise a section 102(b) bar [to someone else getting a patent], as long as the public gained no knowledge of the invention. However, secret commercialization by a previous *inventor* will raise a section 102(g) bar, regardless of whether the public gained knowledge of the invention. It is important to note that courts have developed these rules largely in the absence of legislative direction.¹¹⁹

The section 102(g) bar means that the inventor who has kept the invention secret loses priority to patentability to another.

Before enactment of the AIA, 35 U.S.C. § 102(g) provided:

(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 abandoned, suppressed, or concealed*, or (2) before such person's invention thereof, the invention was made in this country

118. TQP Development, LLC v. 1-800-Flowers.com, Inc., 120 F. Supp. 3d 600, 616 (E.D. Tex. 2015) (internal citations omitted).

119. James R. Barney, *The Prior User Defense: A Reprieve for Trade Secret Owners or a Disaster for the Patent Law*, 82 J. PAT. & TRADEMARK OFFICE. SOC'Y 261, 271 (2002) (analyzing the effect on non-informing use and concealment doctrines; arguing that the 1992 version of section 273 was a mistake).

by another inventor who *had not abandoned, suppressed, or concealed it*. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.¹²⁰

The application of the now-repealed section 102(g) is illustrated by *Apotex USA, Inc. v. Merck & Co., Inc.*¹²¹ The Federal Circuit affirmed a finding of invalidity, holding that the accused infringer rebutted a claim that it had suppressed or concealed its earlier invention of the patent subject matter.

The court distinguished application of the concept in the interference context from its application in the infringement context: In the infringement context, a patent has been issued and is entitled to a presumption of validity, imposing the burden of providing prior invention, along with the burden of rebutting a claim of suppression or concealment, on the challenger.¹²²

The court also distinguished active from conscious suppression or concealment, as with the maintenance of a trade secret, and unreasonable delay in filing a patent application.¹²³ The second type of delay was involved in the case before it.

We conclude that Merck has succeeded in rebutting the inference of suppression or concealment created by its period of inactivity by clear and convincing evidence. . . . Merck made several disclosures following its period of suppression or concealment that made the invention publicly known, all of which took place before Apotex's entry into the field¹²⁴

TQP Development, LLC v. 1-800-Flowers.com, Inc.,¹²⁵ involved an unsuccessful motion for judgment as a matter of law (JMOL) after a jury verdict finding infringement and awarding \$2.3 million in damages. The patent holder claimed active suppression and concealment. The court said,

This case presents the question of whether Mike Jones, the inventor of the '730 patent who utilized the patent system to disclose his invention to the public and, in exchange, obtained a patent on his

120. 35 U.S.C. § 102(g) (2010). Emphasis added.

121. 254 F.3d 1039-40 (Fed. Cir. 2001).

122. 254 F.3d at 1037.

123. 254 F.3d at 1038.

124. 254 F.3d at 1039-1040.

125. 120 F. Supp. 3d 600, 603 (E.D. Tex. 2015).

invention, should lose that patent because another inventor, around the same time period, made a similar invention but then kept that invention secret while attempting to later bring it to market. The jury heard substantial testimony about the third-party prior invention, the jury was instructed on the law, and the jury found that the facts did not support invalidation of the '730 patent. Given that the law supports the Plaintiff's arguments, and given that "[e]arly public disclosure is a linchpin of the patent system," the Court finds that the jury verdict should be upheld.¹²⁶

However, when viewed in a light most favorable to the jury's verdict, the evidence presented at trial does not show that the prior inventors took affirmative steps to make the invention publicly known during the relevant time period. Instead, the evidence on the record in this case establishes that the parties involved in the Lotus Notes with RC4 invention (and the RC4 alone invention) did the exact opposite: they took affirmative steps to ensure that the prior invention was *not* made publicly known (and was not disclosed) between the time it was reduced to practice and the time it was sold to the public on December 7, 1989.¹²⁷

Furthermore, evidence at trial established that RC4 was held as a trade secret, and to this day, "RSA security has never officially released the [RC4] algorithm." Evidence from Newegg's expert, at trial, also established that RC4 was affirmatively held as a trade secret:

Q Okay. And [RC4] was kept a trade secret until some hacker cracked the code and posted it to a website called Cipherpunks in 1994, correct?

A (Stubblebine) Yes.¹²⁸

Testimony may be the best way to establish public use in claims involving arguments of non-disclosing public use. A lay witness can testify that he learned the details of the invention from using a product or service. An expert may testify (a) that he had no knowledge of the invention before participating in an experiment, (b) that he used the machine or device, and (c) that he deduced the details of the invention without any affirming reverse-engineering effort.

126. 120 F. Supp. 3d at 610.

127. 120 F. Supp. 3d at 610 (reviewing evidence of nondisclosure agreements).

128. 120 F. Supp. 3d at 611 (internal citation omitted).

Returning to the fictitious account, Bastian's earlier invention does not invalidate Trey's patent. It is not prior art because it is secret. That he was the first to invent no longer matters under AIA's first-inventor-to-file system. Even under the pre-AIA first-to invent system, he would be denied priority because he suppressed or concealed his invention by claiming trade secret.¹²⁹

E. Does the Patent Extinguish the Trade Secret?

Patents, when issued, and patent applications, when published, disclose the invention. They thus extinguish any trade secret that otherwise might exist in their subject matter.¹³⁰

In *Attia v. Google LLC*,¹³¹ Attia owned trade secrets in an "engineered architecture" (EA) it developed. Google, with Attia's permission, filed patent applications related to EA.¹³² The court of appeals held that the patent applications, when published, extinguished the trade secrets, depriving Attia of standing to claim trade secret misappropriation.¹³³

It noted that a trade secret owner could recover if it could show "implementation details and techniques" beyond what is disclosed in a patent, but Attia did not do that.¹³⁴

In *Safe Haven Wildlife Removal and Property Management Experts, LLC v. Meridian Wildlife Services LLC*,¹³⁵ a former employee of a trade secret owner used the trade secrets to take out a patent in his own name after he set up a competing business. The former employer subsequently received patents. The former employee defended a trade secrets misappropriation claim among other things on the ground that the former-employer's patent extinguished the trade secrets. Inexplicably, he did not argue that his own patent extinguished the trade secrets. The district court recognized that patent filings can extinguish trade secrets, but concluded that the patent filings did not contain the trade secrets at issue and "thus did not impact these trade secrets' secrecy."¹³⁶

129. 35 U.S.C. § 102(g) (2010).

130. Henry H. Perritt, Jr., *Trade Secrets for the Practitioner* § 4:9.3 (3d ed. 2024) (analyzing cases finding that trade secrets are extinguished by patent publication).

131. 983 F.3d 420, 422-23 (9th Cir. 2020).

132. 983 F.3d at 423, 425 (summarizing relevant facts).

133. 983 F.3d at 425.

134. 983 F.3d at 426.

135. 716 F.Supp. 3d 432, 441 (W.D. Va. 2024).

136. *Id.* at 441.

Most of the cases involving trade secret extension by patent involve patents obtained by or under the authority of the trade secret owner. It is thus open for one seeking to escape that authority to argue that those cases should be understood as applying a kind of estoppel or waiver to the trade secret claimant, rather than embracing a general proposition of extinction.

But *Ultimax Cement Mfg. Co. v. CTS Cement Mfg. Co.*,¹³⁷ did involve a third party patent, a Japanese patent. The Federal Circuit rejected the argument that a patent only blocks a misappropriation claim against a defendant who obtained the trade secret from the patent.¹³⁸ Patents place their contents into the public domain, eliminating the possibility of the secrecy requisite to a trade secret.

Ultimax's argument focuses on how CTS obtained the alleged secret information, attempting to rebut a possible defense to a trade secret claim, but that is irrelevant if there is no secret. Here, Ultimax has not shown that it had a secret. Information disclosed in a patent, even a foreign one, is 'generally known to the public,' especially the relevant public in the cement industry. Indeed, one of the primary purposes of patent systems is to disclose inventions to the public.¹³⁹

The requirement remains that the patent and the trade secret must be the same.¹⁴⁰

But there is no escaping the reality that a trade secret must be secret to retain its status, and a patent makes its contents public. So the logic extends the holdings to situations in which a patent is obtained, not by the trade secret owner, but by a third party, such as Trey in the story.

Bastian and Blaine are motivated twice over to argue that Trey's patent claims are not exactly the same as Bastian's invention. If they are not the same, publication of Trey's patent does not extinguish Bastian's trade secrets. If they are not the same, he is not infringing.

Even if Trey's patent does extinguish Bastian's trade secret, however, Bastian remains free to practice the invention formerly covered by the trade secret unless he infringes the patent, an issue considered in Part IV.

137. 587 F.3d 1339, 1355-56 (Fed. Cir. 2009) (affirming summary judgment disposing of plaintiffs' trade secret claims because no trade secret existed where its trade secret had been disclosed in a patent, making it generally known to the public).

138. 587 F.3d at 1355-56 (summarizing argument).

139. *Id.*

140. *Johns Manville Corporation v. Knauf Insulation, LLC*, Civil Action No 15-cv-00531-RBJ-KLM, 2017 WL 4222621 at *8 (D. Colo. Sept. 22, 2017) (distinguishing *Ultimax*; noting that more general ranges for element ranges in the patent did not extinguish the trade secret for narrower ranges, some of which were outside the patent ranges).

IV. CAN A TRADE SECRET OWNER BECOME AN INFRINGER OF ANOTHER'S PATENT?

A. *Prima Facie Infringement*

Patent owners can establish infringement either by showing literal infringement or under the doctrine of equivalents. “To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly.”¹⁴¹

The doctrine of equivalents originated in *Winans v. Adam, Edward, and Talbot Denmead*.¹⁴² The patent at issue claimed a conically shaped railroad coal car. The accused infringer's coal car was octagonal in shape. The plaintiff asked for an instruction taken literally from an English case:

to entitle the plaintiff to a verdict, it was not necessary that the body of the defendants' cars should be conical, in the exact definition of the term, provided the jury should believe that the form adopted by the defendants accomplished the same result, substantially, with that in view of the plaintiff, and upon substantially the same principle and in the same mode of operation.¹⁴³

The trial court rejected this instruction and instead instructed the jury:

That while the patent is good for what [is] described therein, a conical body, in whole or in part, supported in any of the modes indicated for a mode of sustaining a conical body on a carriage or truck, and drawing the same, and to those principles which were due alone to conical vehicles and not to rectilinear bodies, and it being admitted that the defendants' car was entirely rectilinear, that there was no infringement of the plaintiff's patent.¹⁴⁴

. . . It is generally true when a patentee describes a machine and then claims it as described, that he is understood to intend to claim, and does by law actually cover, not only the precise forms he has described, but all other forms which embody his invention, it being a familiar rule that, to copy the principle or more of operation described, is an infringement, although such copy should be totally unlike the original in form or proportions.¹⁴⁵

141. *Med-El Elektromedizinische Gerate Ges.M.B.H. v. Advanced Bionics, LLC*, 657 F. Supp.3d 604, 613 (D. Del. 2023) (finding lack of identity between limitations).

142. 56 U.S. (15 How.) 330, 337 (1853).

143. *Winans*, 56 U.S. at 334 (quoting plaintiff's proposed instruction).

144. *Id.* at 336 (quoting instruction).

145. 56 U.S. at 342.

... Patentable improvements in machinery are almost always made by changing someone or more forms of one or more parts, and thereby introducing some mechanical principle or mode of action not previously existing in the machine, and so securing a new or improved result. And, in the numerous cases in which it has been held, that to copy the patentee's mode of operation was an infringement, the infringer had got forms and proportions not described, and not in terms claimed. If it were not so, no question of infringement could arise. If the machine complained of were a copy, in form, of the machine described in the specification, of course it would be at once seen to be an infringement. It could be nothing else. It is only ingenious diversities of form and proportion, presenting the appearance of something unlike the thing patented, which give rise to questions, and the property of inventors would be valueless, if it were enough for the defendant to say, "your improvement consisted in a change of form; you describe and claim but one form; I have not taken that, and so have not infringed."¹⁴⁶

[... And therefore] the patentee, having described his invention, and shown its principles, and claimed it in that form which most perfectly embodies it, is, in contemplation of law, deemed to claim every form in which his invention may be copied, unless he manifests an intention to disclaim some of those forms.¹⁴⁷

It reversed the trial court.

In *Graver Tank & Mfg. Co. v. Linde Air Products Co.*,¹⁴⁸ the Supreme Court embraced this doctrine of equivalents. "[A] patentee may invoke this doctrine to proceed against the producer of a device 'if it performs substantially the same function in substantially the same way to obtain the same result.'"¹⁴⁹

In *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*,¹⁵⁰ The Supreme Court rejected an argument that the 1952 Patent Act had eliminated the doctrine of equivalents as a means of finding patent infringement. After careful evaluation of the arguments against the equivalents doctrine and of ways of limiting it, the Court said:

In our view, the particular linguistic framework used is less important than whether the test is probative of the essential inquiry:

146. *Id.* at 342-343.

147. *Id.* at 343.

148. *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 608-09 (1950).

149. *Graver Tank & Mfg. Co.*, 339 U.S. at 608.

150. *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 25-28 (1997).

Does the accused product or process contain elements identical or equivalent to each claimed element of the patented invention? Different linguistic frameworks may be more suitable to different cases, depending on their particular facts. A focus on individual elements and a special vigilance against allowing the concept of equivalence to eliminate completely any such elements should reduce considerably the imprecision of whatever language is used. An analysis of the role played by each element in the context of the specific patent claim will thus inform the inquiry as to whether a substitute element matches the function, way, and result of the claimed element, or whether the substitute element plays a role substantially different from the claimed element.¹⁵¹

In *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*,¹⁵² the Supreme Court recounted the history of the doctrine of equivalents from *Winans*, through *Graver Tank* to *Warner-Jenkinson*, acknowledging continuing arguments over the doctrine's consistency with patent policy but leaving reform up to the Congress.¹⁵³ It then moved to consider the rule of prosecution history estoppel as a means of reining in the equivalents doctrine. Prosecution history estoppel estops a patent owner from claiming infringement based on equivalents abandoned by amendments to claims during the prosecution process.¹⁵⁴

Prosecution history estoppel ensures that the doctrine of equivalents remains tied to its underlying purpose. Where the original application once embraced the purported equivalent but the patentee narrowed his claims to obtain the patent or to protect its validity, the patentee cannot assert that he lacked the words to describe the subject matter in question. The doctrine of equivalents is premised on language's inability to capture the essence of innovation, but a prior application describing the precise element at issue undercuts that premise. In that instance the prosecution history has established that the inventor turned his attention to the subject matter in question, knew the words for both the broader and narrower claim, and affirmatively chose the latter.¹⁵⁵

It reversed an expansion of the estoppel doctrine adopted by the en banc Federal Circuit and adopted the more traditional view, focused on

151. *Warner-Jenkinson Co.*, 520 U.S. at 40.

152. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 732-33 (2002).

153. *Id.* at 733.

154. *Id.* at 733-734 (describing concept).

155. *Id.* at 734-35.

whether a patent applicant had amended to avoid particular prior art or to abandon particular equivalents.¹⁵⁶

The equivalents doctrine is quite relevant to Bastian's situation. In the worst case, the doctrine would expand his infringement liability while limiting his prior user defense. This would be the case if the equivalents doctrine is not applied symmetrically in the two contexts—if it applies to infringement but not to the prior user defense.

Bastian's trade-secret invention uses "multi-model consensus" and "knowledge-based systems" to control hallucination. Trey's patent claims refer to "means for controlling hallucination," and the description part of his specification refers to "hallucination-control mechanisms, such as multi-model consensus and grounded response generation."

Under the means plus function proviso of 35 U.S.C. § 112(f) Trey's claim is interpreted and limited by the description.

Arguably, grounded response generation is a subset of the knowledge-based systems category; in other words it is a species of the genus knowledge-based systems. So the specificity of the "grounded-response generation" claim does not align with the "knowledge-based system" characteristic of Bastian's use. Bastian and Blaine will argue that the dissimilarity means that Bastian's use does not read on every limitation of Trey's patent and thus there is no literal infringement. Trey will argue that the doctrine of equivalents covers Trey's use and, independently, that his claim should be interpreted as extended to the entire genus of knowledge-based systems, of which grounded response generation is only one embodiment.

Bastian's fall-back argument is that if Trey's more expansive claim interpretation is permissible, the prior user defense extends at least as far as his use, if not farther.

B. Prior User Defense Under Section 273

Section 273 of the Patent Act provides, in material part:

(a) In General.—A person shall be entitled to a defense under section 282(b) with respect to subject matter consisting of a process, or consisting of a machine, manufacture, or composition of matter used in a manufacturing or other commercial process, that would otherwise infringe a claimed invention being asserted against the person if—

156. *Id.* at 741-42.

(1) such person, acting in good faith, commercially used the subject matter in the United States, either in connection with an internal commercial use or an actual arm's length sale or other arm's length commercial transfer of a useful end result of such commercial use; and

(2) such commercial use occurred at least 1 year before the earlier of either—

(A) the effective filing date of the claimed invention; or

(B) the date on which the claimed invention was disclosed to the public in a manner that qualified for the exception from prior art under section 102(b).

(b) Burden of Proof.—A person asserting a defense under this section shall have the burden of establishing the defense by clear and convincing evidence.¹⁵⁷

C. History

Conventional legislative history in the form of committee-report language interpreting the proviso is sparse.¹⁵⁸

But the concept of a prior user defense had been kicked around the halls of Congress for decades. One commentator observed that debate over a prior user right extended over three decades before 1997, and that it was intensifying as the U.S. considered conforming its law with that of the rest of the world. The United States was the only leading industrialized nation lacking a formal prior user right.¹⁵⁹

157. 35 U.S.C. § 273. Subsection (c) covers additional commercial uses; subsection (d) provides for exhaustion of rights by sale; subsection (e) enumerates exceptions; subsection (f) authorizes attorneys' fees for unreasonable assertion of the defense; and subsection (g) makes it clear that a successful prior user defense does not invalidate the patent). See Prior Commercial Use Defense, The Leahy-Smith America Invents Act: Innovation Issues, Cong. Res. Serv. Report R42014 at 8-10 (Jan. 14, 2014), https://www.everycrsreport.com/files/20140115_R42014_615ccfe228813a670b162705e604fc6894526583.pdf (explaining the intended operation of section 273).

158. See Joe Matal, *A Guide to the Legislative History of the American Invents Act*: Part II or II, 21 FED. BAR. J. 539, 551-581 (2014) (analyzing legislative history and purpose of 35 U.S.C. § 273 Prior User Rights). Mr. Matal was Judiciary Committee counsel to Senator Jon Kyl as the AIA was moving through Congress. His article is cited by the USPTO as a resource on the legislative history of the 2013 Act. https://www.uspto.gov/sites/default/files/aia_implementation/guide_to_aia_part_2.pdf.

159. See Pierre Jean Hubert, *The Prior User Right of H.R. 400: A Careful Balancing of Competing Interests*, 14 SANTA CLARA COMPUTER & HIGH TECH. L. J. 189, 192 (1998) (evaluating H.R. 400, 105th Cong., 1st Session. (1997) and explaining motivations for it).

Indeed, a prior user right was embedded in U.S. patent law for at least a hundred years antedating 1952. It was codified in section 7 of the Patent Act of 1839, which read:

That every person or corporation who has, or shall have purchased or constructed any newly invented machine, manufacture, or composition of matter, prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture, or composition of matter so made or purchased, without liability therefor to the inventor, or any other person interested in such invention No patent shall be held to be invalid, by reason of such purchase, sale, or use prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public; or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent.¹⁶⁰

In *McClurg v. Kingsland*,¹⁶¹ the Supreme Court applied section 7 to allow an earlier inventor to continue practicing his invention notwithstanding a claim of patent infringement, while also upholding the validity of the patent. It held that the privilege conferred extends only to the patent claims—an improvement in the case before it—and not to the subject matter generally.¹⁶² Thus if someone invented a machine and someone else later patented an improvement on the machine, the prior user right would not apply to the first inventor's subsequent practice of the improvement.

In *Barton v. Nevada Consolidated Copper Co.*,¹⁶³ the circuit court noted that section 7 had most often been applied in the employer-employee shop-right context, also observing that amendments made to it in the Patent Act of 1870 did not change its meaning materially.¹⁶⁴

In *Cherry-Burrell Corp. v. Dair & Creamery Equipment Co.*,¹⁶⁵ the court of appeals applied the pre-1952 prior user defense. It found testimony more than ample to establish that the defendant in a patent infringement suit had used a “machine . . . essentially the same in arrangement, operation, and results as that covered by the involved claims

160. Act of March 3, 1839, ch. 357, §7[B], 5 Stat. 353 (1839)). See Hubert, *supra* note 159 at 202. (discussing provision).

161. *McClurg v. Kingsland*, 42 U.S. 202, 208-10 (1843).

162. *Id.* at 208-10.

163. *Barton v. Nevada Consolidated Copper Co.*, 71 F. 2d 381 (9th Cir. 1934).

164. *Id.* at 383-84.

165. *Cherry-Burrell Corp. v. Dair. & Creamery Equipment Co.*, 75 F. 2d 60 (8th Cir. 1934).

of this patent, although it was more crudely constructed out of makeshift material.”¹⁶⁶ The court also found no infringement:

Each of the three claims here involved is for “a self-contained cleaning apparatus comprising” etc. (claim 3); “a portable self-contained can washing apparatus * * * ” (claim 4); “a portable self-contained apparatus for washing and sterilizing milk cans * * * ” (claim 5). Defendant’s device is not “self-contained.”¹⁶⁷

The court did not explicitly address the question whether the prior user defense could be established by a use that was not exactly congruent with the patent claims, although its dual holdings suggest that the answer is yes. If no infringement occurred because of lack of congruence, how otherwise could the prior user defense be established?

The Patent Act of 1952 repealed the prior user right, asserting that it was redundant and unnecessary.¹⁶⁸

The debate was intensified by the Federal Circuit’s decision in *State Street & Trust Co. v. Signature Fin. Group Inc.*,¹⁶⁹ which made patents available for business methods. The business community successfully pressed Congress to enact prior user rights, albeit ones limited to business methods in the American Inventors Protection Act (AIPA) of 1999.¹⁷⁰ The conference report on the 1999 version made it clear that its justification was rooted in the disruption caused by the upsurge in business method patents:

Trade secrets have taken on a new importance with an increase in the ability to patent all business methods and processes. It would be administratively and economically impossible to expect any inventor to apply for a patent on all methods and processes now deemed patentable. In order to protect inventors and to encourage

166. *Id.* at 62.

167. *Id.*

168. Hubert, *supra* note 159, at 203. See Robert L. Rohrback, *Prior User Rights: Roses or Thorns?*, 2 BALD INTELL. PROP L.J. 1, 2 (1993) (arguing against prior user rights in patent reform legislation).

169. *State St. & Trust Co. v. Signature Fin. Group Inc.*, 149 F.3d 1368, 1375 (Fed. Cir. 1998), *abrogated by* *In re Bilski*, 545 F.3d 943, 959-61 (Fed. Cir. 2008).

170. Pub. L. 106-113, div. B, §1000(a)(9) [title IV, §4302(a)], Nov. 29, 1999, 113 Stat. 1536, 1501A-555, codified as 35 U.S.C. § 273(a)(3) (2000). See Aleksey Khan, *America Invents Act’s Prior User Defense: Lessons from Global Patent Regimes and Legislative History*, 15 U. PITT. J. TECH. L. & POL’Y 132, 143-44 (2015) [hereinafter “*Global Lessons*”] (recounting political history of section 273(a)(3)).

proper disclosure, this subtitle focuses on methods for doing and conducting business, . . .¹⁷¹

The house report doubled down on this justification:

In the past, many of the financial institutions that developed and used such systems did so in a climate where trade secret protection was believed to be the only practical legal protection available. Under established law, these pre-existing systems do not now qualify for patent protection because they have been in commercial use for some time, albeit in secret. Such secret or “concealed” use may not prevent another, later inventor from obtaining patent protection that would bar the earlier developer and user from continuing to use the business processes and methods that are her earlier inventions and that may have been in use for years or even decades.¹⁷²

Despite its limitations, recognition of prior-use rights evoked criticism.¹⁷³

Interest in prior-user rights intensified as the United States began to consider moving away from its unique first-to-invent priority system to the first-inventor-to-file system in use in the rest of the world.¹⁷⁴ “In first-to-file countries, prior user rights are awarded largely to protect small enterprises that are unable to win races to the patent office against large enterprises that can afford to apply for patent protection on many inventions before determining the commercial potential of the invention.”¹⁷⁵

The relationship between an earlier inventor and a later patentee involved consideration of three basic circumstances: the inventor’s prior use informs the public of the nature of the invention; the inventor’s prior use is secret; and the inventor’s prior use is “in plain public view, but by

171. “Intellectual Property and Communications Omnibus Reform Act of 1999,” H.R. Conf. Rep. 106-464, at 121-25, 1999 WL 1095089 (Nov. 9, 1999).

172. American Inventors Protection Act of 1999, H. Rep. No. 106-287(I), at 44-49, 1999 WL 569140 (August 3, 1999).

173. See Barney, *supra* note 119.

174. *Global Lessons*, *supra* note 170 at 136-137 (noting variation in other countries’ prior use regimes from considering the mere possession of inventive idea, in France and Belgium, to looking for active commercial use in other countries). See Int’l Federation of Intellectual Property Attorneys, *FICPI Position on Prior User Rights*, FICPI/WP/2015/ at 1, https://www.wipo.int/export/sites/www/scp/en/meetings/session_33/comments_received/statements-ficpi-3.pdf [hereinafter “Federation Statement”] (visited Sept. 30, 2024) (characterizing French, German, and Australian approaches).

175. Leslie M. Hill, *Prior User Defense: The Road to Hell Is Paved with Good and Bad Intentions*, 10 FED. CIR. B. J. 513, 515-16 (2001) [hereinafter “*Road to Hell*”] (explaining the 1992 proposal to restore prior user rights as necessary adjunct to moving to the first-to-file system).

the nature of the invention, fail[s] to give the public an understanding of the patented invention.” The third possibility is the so-called “non-informing public use.”¹⁷⁶ A public use anticipates the subject matter of the patent and invalidates it.¹⁷⁷

Leslie Hill put the case against prior user rights succinctly:

Awarding prior user rights is contrary to the premise of our patent system, which encourages innovation and investment by granting the inventor the right to exclude others from using the invention for a limited period of time in exchange for disclosure of the invention to the public. Providing prior user rights encourages secrecy in direct conflict with the very foundations of our patent system; these rights do not promote the progress of the useful arts.¹⁷⁸

Diane Crawley agreed:

[U]nder the Act, such an inventor has greatly enhanced prior user protections. Such an inventor, insulated from the infringement claims of later patentees by the expanded prior user rights of the Act, may very well opt to maintain her invention as a trade secret, robbing other inventors and society of the valuable disclosure, the quid pro quo of patent law, on which later inventors can build in advancing innovation. This incentive for secrecy, far from fulfilling the constitutional mandate to promote the progress of Science and the useful Arts, will instead promote concealment over disclosure and will retard the progress of science and the useful arts.¹⁷⁹

On the other side of the argument, Jonas Anderson forthrightly endorses the prior user defense precisely because it encourages trade secret protection, which in his view is an entirely legitimate way of protecting intellectual property, entitled to policy parity with patents: “trade secrets and patents should be viewed not as opposing systems of invention protection, but rather as complementary tools for policy makers.”¹⁸⁰

Anderson goes on to say,

The third aspect of the patent system that discourages secrecy is U.S. patent law’s general lack of prior user rights. Unlike trade secret holders in a majority of countries, U.S. inventors do not generally

176. *Id.* at 519.

177. *Id.* at 521-522.

178. *Id.* at 532 (internal footnotes omitted).

179. Diane H. Crawley, *American Invents Act: Promoting Progress or Spurring Secrecy?*,

36 U. HAW. L. REV. 1, 18 (2014) (internal footnotes and quotations omitted).

180. J. Jonas Anderson, *Secret Inventions*, 26 BERKELEY TECH. L.J. 917, 921 (2011).

possess prior user rights in their inventions. That is, a first inventor that practices her invention in secret cannot use her prior use and invention as a defense against a subsequent patentee. For example, consider the case of Inventor 1 inventing an improved method of manufacturing widgets. If she chooses to maintain her invention as a secret, she loses her right to patent that invention one year after she sells the invention or puts it into public use. Those priority rules limit Inventor 1's ability to claim exclusive rights in her invention after certain activities occur.

The lack of prior user rights, however, does more than merely limit Inventor 1's ability to patent her invention; it potentially limits her ability to practice her own invention. If Inventor 2 discovers and patents the method of manufacturing widgets, she can sue Inventor 1 for infringement. Inventor 1's earlier invention and use is not a valid defense to patent infringement. Therefore the possibility of infringement liability hangs over the head of a first inventor if she chooses to practice her invention in secret. The threat of infringement liability to a subsequent inventor can be a powerful deterrent against keeping an invention secret.¹⁸¹

Aleksey Khan observes that embrace of the prior user defense in the AIA is likely to make trade secret protection a more attractive option to patenting, in linking with many large enterprises' preference for trade secret protection.¹⁸²

On the Hill, during the five-year legislative effort culminating in the AIA, large corporations generally supported a prior user right, while universities and individual inventors opposed it.¹⁸³

Inclusion of a prior user defense as part of the global harmonization of patent law had been recommended by Article 20 of the WIPO draft harmonization treaty.¹⁸⁴

Section 273 was amended in 2011 by the AIA to remove the requirement that prior use be reserved for business methods alone.¹⁸⁵ The AIA also repealed section 103(g) which conferred priority on earlier inventors unless the earlier inventor had "suppressed or concealed" the

181. *Id.* at 934-935 (internal footnotes omitted).

182. *Global Lessons*, *supra* note 170. *See also id.* at 141-142 (summarizing arguments on both sides).

183. *Id.* at 148-151 (noting varied positions within these groups).

184. Edward G. Floret, *The SIPO "Basic Proposal" for Harmonization of Patent Laws Viewed from the U.S. Perspective*, 19 AIPLA Q. J. 24, 49-50 (1991) (reviewing 1990 WIPO draft harmonization treaty).

185. Public Law 112-29, 125 Stat. 297 (Sept. 16, 2011).

invention—language that everyone agreed included assertion of trade secret protection. Section 102(g) denied prior-art effect to trade secrets but left the trade secret owner vulnerable to liability for infringing a later-granted patent.¹⁸⁶

D. Application

Prior user rights are understood as an essential component of first-to-file system to allow first inventors to retain rights to their inventions while protecting them as trade secrets.¹⁸⁷ The concept is justified as necessary to protect investment-backed reliance on the privilege of continuing to exploit the invention.¹⁸⁸

One commenter expressed concern about the impact of section 273's restrictions on individual inventors, saying that they got the worst of both worlds:

Not only are the inventor's patents subject to the prior user defense if infringed upon by a third party, but if the small inventor is accused of infringement, the prior user defense may be especially difficult to claim. Unless "commercial use" is given a very expansive interpretation, a small inventor would likely not qualify because such an inventor usually does not have a commercial enterprise. Unlike a large semiconductor company that invests in a plant for a new chip and creates thousands of jobs, an individual inventor may not be able to create any jobs or make any commercial use of a significant scale quickly enough. Although the sponsors of the AIA purported to protect the interests of both small inventors and universities, there was a special deal for the latter, but not for the former. Since a small inventor is not likely to be able to claim the defense, he or she would do best to file a patent application and

186. Diane H. Crawley, *American Invents Act: Promoting Progress or Spurring Secrecy?*, 36 U. HAW. L. REV. 1, 16 (2014) (discussing the application of section 102(g)).

187. Federation Statement at 2.

188. Federation Statement at 3 (referring to "substantial financial investment as prerequisite to entitlement to defense). The concept of investment-backed reliance is used in determining whether one has a property interest protected by the Fifth Amendment. See *Penn Central Transp. Co. v City of New York*, 438 U.S. 104, 124 (1978) (identifying "investment-backed expectations" as a factor in determining whether a compensable Fifth Amendment taking has occurred); *Page v. United States*, 50 Fed. Appx. 409, **3 (Fed. Cir. 2002) (finding no investment-backed reliance sufficient to establish property interest in operating an ostrich egg facility free of new USDA regulation). Similar concepts are used elsewhere in the law to determine whether rights have crystallized. See *Ndubizu v. Drexel University*, 768 F. Supp. 2d 796, 803-804 (E.D. Pa. 2011) (detrimental reliance and promissory estoppel as source of contractual obligation); *id.*, 768 F. Supp. 2d at 803-804 (fraudulent misrepresentation).

disclose the invention as early as possible, even though he or she may not be able to afford patent prosecution expenses, while the large corporations and universities can merely wait and see.¹⁸⁹

Since enactment, litigation over the prior user defense has been modest.

Pavemetrics Systems, Inc. v. Tetra Tech, Inc.,¹⁹⁰ involved innovations for automated inspection of railroad track structures. It originated in a declaratory judgment action by a Canadian company (Pavemetrics) seeking a declaration that it did not infringe a U.S. company's (Tetra Tech) patent and that it had a complete defense to any patent under 35 U.S.C. § 273.¹⁹¹ The American company counterclaimed seeking a preliminary injunction against infringement of its patent. The court found that the Canadian company had established the prior user defense under section 273, based on evidence that it had used the disputed technology for rail inspection over a year before the filing date of the patent and that the use continued.¹⁹²

1. Every Claim Limitation

Availability of the section 273 defense requires a tight match between the limitations of the patent claims and what the defendant claiming section 273 protection has done. *Pelican International, Inc. v. Hobie Cat Company*¹⁹³ rejected a prior user defense under section 273, holding that the defense applies only “if the person’s accused product or act meets each and every limitation in a particular claim or claims asserted against it.”¹⁹⁴ Because the accused infringer’s product did not meet each and every limitation in the claims of the patent, the defense was not established.¹⁹⁵ The court rejected the argument “that there is no requirement under Section 273(a) that the prior commercial use at issue be tied to the specific asserted claims in the action, rather than the general ‘subject matter’ of the claimed invention.”¹⁹⁶ “[The asserted] claims encompass a ‘watercraft’ comprising a ‘rigid body’ and ‘an interface.’”¹⁹⁷

189. *Global Lessons*, *supra* note 170 at 159-160 (internal footnotes omitted).

190. Case No. 2:21-cv-01289-MCS-MAA, 2021 WL 2548959 (C.D. Cal. Apr. 15, 2021).

191. *Id.* at *3.

192. *Id.* at *8.

193. *Pelican Int’l, Inc. v. Hobie Cat Company*, No. 3:20-cv-02390-RSH-MSB, 2023 WL 2127994 (S.D. Cal. Feb. 10, 2023).

194. *Id.* at *19.

195. *Id.*

196. *Id.*

197. *Id.*

As such, Hobie’s alleged development of interfaces by themselves is insufficient to “otherwise infringe” the claimed inventions at issue in this case.¹⁹⁸ Therefore, Hobie’s prior commercial use defense fails as a matter of law, and the Court grants Pelican’s Motion for Summary Judgment of Hobie’s prior commercial use defense under 35 U.S.C. § 273.¹⁹⁹

The Hobie Cat situation arises when an accused infringer has used a variant of an invention—less than the complete invention—and then later uses another variant that meets all the limitations of the patent claims. The earlier use does not qualify for the prior user defense because it is not specific enough; the later use qualifies for infringement because it is specific.

In *Allfasteners USA, LLC v. Acme Operations Pty., Ltd.*,²⁰⁰ the court said, “Even if ISA had timely pleaded the prior user defense, it is based on the prior OneSide product that did not have a spring as explained above. The use of these OneSide products would not be a “prior use” of Claims 1 or 2 of the ‘212 Patent.”²⁰¹

In *Vaughan Co. v. Glob. Bio-Fuels Tech., LLC*,²⁰² the court said:

Finally, they assert that Vaughan’s infringement claim related to the ‘017 patent is barred by prior user rights under 35 U.S.C. § 273 because the Chop-X pump had been in use and on the market since 1999 (Defense 11).

These arguments are without merit. As Vaughan specifically explains, it “is not asserting that the Chop-X pump, by itself, infringes Vaughan’s patents. Rather, Vaughan contends that [Global]’s bid in response to the bid specifications for the Rensselaer project is an infringing offer for sale.” Indeed, if discovery reveals that defendants only offered to sell pump components that are not covered by any of Vaughan’s patents, then the infringement claims will be without merit.²⁰³

In *Flypsi, Inc. v. Google LLC*,²⁰⁴ Flypsi claimed that Google infringed Flypsi’s patent for a way that mobile phone users with multiple

198. *Pelican Int’l*, No. 3:20-cv-02390-RSH-MSB, 2023 WL 2127994 at *19.

199. *Id.*

200. *Allfasteners USA, LLC v. Acme Operations Pty., Ltd.*, 2021 WL 4027738, at *15 (C.D. Cal. May 25, 2021) (rejecting the prior user defense because not timely pleaded).

201. *Id.* at n.11.

202. *Vaughan Co. v. Glob. Bio-Fuels Tech., LLC*, No. 1:12-CV-1292, 2013 WL 5755389 at *11-12 (N.D.N.Y. Oct. 23, 2013).

203. *Id.* (internal citation omitted).

204. *Flypsi, Inc. v. Google, LLC*, No. 6:22-cv-31-ADA, 2022 WL 22715976 (W.D. Tex. Jan. 31, 2024) (Doc. 1).

phone numbers on a single mobile device could maintain the integrity of caller identification functions. After a jury found for Flypsi, Google filed a motion for JMOL.²⁰⁵ Ruling on an earlier pre-jury submission motion for JMOL, the court held that Google was not liable for willful infringement.²⁰⁶ The jury awarded lump sum damages rather than a running royalty.²⁰⁷ Google argued in the alternative that Flypsi's patents were invalid because they were anticipated by Google's earlier inventions, that no infringement was established because Google's product lacked some elements of the patents, and that Google's products were entitled to a prior commercial use privilege under section 273.²⁰⁸

As to section 273, Google argued that "Section 273 does not expressly require that the prior commercial user practice every claim limitation of the asserted patents. The statutory language requires only that the prior commercial user act in good faith and commercially use the allegedly infringing *subject matter* in the United States before the specified date."²⁰⁹

Flypsi's opposition to the JMOL motion²¹⁰ argued that substantial evidence supported the jury's conclusion that Google's products did not constitute "a single anticipatory system that practiced each and every claim element before [the critical date]."²¹¹ On the section 273 defense, Flypsi argued that "commercial use of related subject matter that did not actually practice the claimed invention would not entitle a defendant to a defense under section 273."²¹² It pointed to the "would otherwise infringe" language in the text of section 273, to show that the "prior commercial use" requirement of section 273 must meet all the limitations of the claim for which the defense is asserted.²¹³

"It is a 'bedrock principle' of patent law that the 'claims of a patent define the invention to which the patentee is entitled the right to

205. Defendant Google LLC's Motion for Judgement as a Matter of Law Under Fed. R. Civ. P.50(b), Flypsi, Inc. v. Google, LLC., No. 6:22-cv-31-ADA, 2022 WL 22715976 (W.D. Tex. Jan. 31, 2024) (Doc. 302) [hereinafter "JMOL motion"].

206. *Id.* at I.

207. *Id.* at I.

208. *Id.* at I (enumerating arguments); *Id.* at III(A) & (B) (presenting anticipation argument).

209. *Id.* at IV.

210. Plaintiff Flypsi, Inc.'s Response in Opposition to Defendant Google LLC's Motion for JMOL (JMOL Opposition), Flypsi, Inc. v. Google, LLC., No. 6:22-cv-31-ADA, 2022 WL 22715976 (W.D. Tex. Jan. 31, 2024) (Doc. 312) [hereinafter "JMOL Opposition"].

211. *Id.* at III(A).

212. *Id.* at IV.

213. *Id.*

exclude.”²¹⁴ As such, an infringement analysis requires a comparison of the properly construed claims to the allegedly infringing device or act. And an infringement analysis is performed on a claim-by-claim basis. Thus, a person can only “otherwise infringe” a particular claimed invention if the person’s accused product or act meets each and every limitation in a particular claim or claims asserted against it.²¹⁵ It cited *Hobie Cat, All Fasteners, and Vaughn* in support of its reasoning.²¹⁶ Because Google’s product did not anticipate, it was not entitled to the section 273 defense.²¹⁷

English law is similar to U.S. law in this interpretation.²¹⁸ In Japan, in contrast, a prior user can expand the scope of the defense, within the bounds of the technical concept embedded in the invention. “[I]n other words, . . . the prior user is not bound by the exact boundaries of the original, pre-patent use.”²¹⁹ One international group says that the scope of the defense should be commensurate with the scope of the patent as to which infringement is alleged.²²⁰

U.S. law says that an accused infringer entitled to the prior user defense under section 273 may also be able to invalidate the patent by offering his prior use as anticipatory prior art. But that will be the case only if the prior use was public, not if it was held as a trade secret.²²¹ If it is public, the same match between limitations is necessary.

2. Abandonment

Flypsi also argued that Google had abandoned the product offered as prior use by letting it “languish” in “disrepair” for five years, by turning off the servers that supported it, and because its apps did not send data to

214. *Id.*

215. *Id.*

216. JMOL Opposition, at IV (citing *Pelican Int’l, Inc. v. Hobie Cat Co.*, No. 320CV02390RSHMSB, 2023 WL 2127994 at *18 (S.D. Cal. Feb. 10, 2023); *Allfasteners USA, LLC v. Acme Operations Pty., Ltd.*, 2021 WL 4027738 at *15 (C.D. Cal. May 25, 2021) (analyzing a prior use defense under section 273(a) based on the specific asserted claims in the action); *Vaughan Co. v. Glob. Bio-Fuels Tech., LLC*, 1:12-CV-1292, 2013 WL 5755389 at *11-12 (N.D.N.Y. Oct. 23, 2013).

217. *Id.* at IV.

218. *Global Lessons*, *supra* note 170 at 141 (“Unlike in Japan, the U.K. prior user defense is of little use”).

219. *Id.* at 137-138.

220. Federation Statement at 3 (“only the embodiments or modes of use that the prior user had enabled before the priority date”).

221. See *supra* Section III.D; 35 U.S.C. § 102(a) negates the novelty required of a patent application if the claimed invention was “in *public* use” or “otherwise available to the *public*” before the effecting filing date of the application (emphasis added).

the product.²²² This suggests the possibility that a section 273 defense may be unavailable unless the commercial use is continuous. But the statute does not say anything about the duration of the prior use, and if a continuity requirement is to be grafted onto the statute, one must decide how long the continuous use must be: until the beginning of the one-year grace period? Until the patent application? Until the date the infringement action is filed? Until the date of judgment? A continuity requirement is illogical. Suggesting such a requirement is a throwback to pre-AIA section 102(g) interference concepts, under which a first inventor would lose priority if he abandoned his invention.

Under section 267, a prior user should be shielded from infringement liability for whatever period he practiced his use, regardless of duration.

3. Prior Use Within Grace Period

One issue debated by commentators is whether prior user rights can arise during the grace period if one exists.²²³ The answer in the United States is “no,” because of the proviso that only prior uses of one year or longer before the filing of a patent application qualifies.²²⁴ The U.S. version also denies the defense to one who derived the invention from the patent applicant.²²⁵

Khamin observes that the one-year requirement serves no purpose, since its original justification of protecting universities is taken care of by the university exemption,²²⁶ and derivation is taken care of by an explicit exclusion of derived inventions.²²⁷ Nevertheless, the one year prerequisite is in the statute.

The story does not make it clear whether Bastian crystallized his invention more than a year before Trey applied for his patent or made a grace-period disclosure.²²⁸ If he did not, he is out of luck in benefitting from section 273.

222. Flypsi, Inc. v. Google LLC, No. 6:22-cv-31-ADA, 2022 WL 22715976 (W.D. Tex. filed Jan. 10, 2022); (original complaint) (W.D. Tex. Jan. 31, 2024); 2024 WL 2797580 at IV (W.D. Tex. Filed Apr. 23, 2024) (opposing defendant’s motion for JMOL) [hereinafter “JMOL Opposition”].

223. Federation Statement at 2.

224. § 273(a)(2)(A).

225. § 273(e)(2).

226. § 273(e)(5).

227. § 273(e)(2).

228. Perritt, *supra* note 218, at § 0 (explaining grace period disclosures).

4. Scope of Commercialization Requirement

The scope of section 273 is defined by the language, “with respect to subject matter consisting of a process, or consisting of a machine, manufacture, or composition of matter *used in a manufacturing or other commercial process . . .*.”²²⁹

The placement of a comma after the word “process” and before the phrase “machine, manufacture, or composition of matter” and the absence of a comma between “composition of matter” and “used in manufacturing or other commercial process” suggest that the limitation “used in manufacturing or other commercial process” modifies the manufacturing phrase and not “process.”²³⁰ In other words, any process is covered, but only manufacturing or other commercial machines, manufacture, or composition of matter is covered. Such an interpretation is consistent with the recent history of section 273, originating as a defense to business method patents, which involved financial services more than manufacturing. The placement of the comma also might be interpreted to mean that the *used in* limitation only applies to compositions-of-matter inventions, but that would make little sense, because compositions of matter inventions are not often the subject of manufacturing uses.

Commentary assumes that the manufacturing or commercialization requirement applies to the full range of utility patent subject matter. Aleksey Khamin offers a useful interpretation of the scope language. Consumer products are not covered by the phrase “commercial process,” he says.²³¹ But it does not matter, he further explains, because

Generally, products that are sold to consumers will not need a PCU [prior commercial use] defense over the long term. 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.²³²

That characterization rather oversimplifies the prior art analysis considered in Section I and ignores the possibility of non-disclosing public use in the same section.

It is not only subject matter scope, but also temporal scope, that matters. When does “commercial” use begin?²³³ Senator Patrick Leahy,

229. § 273(a) (emphasis added).

230. *Id.*

231. *Global Lessons*, *supra* note 170, at 152-153.

232. *Id.* at n.134.

233. *Id.* at 153 & n.134.

co-sponsor of the bill, said in a floor statement that diligent preparation for commercializing an invention, such as building prototypes, would satisfy the requirement for commercial use.²³⁴ Even broader interpretations were nixed because of opposition by the universities.²³⁵

Questions exist whether “such post-inventive activities as perfecting the invention and using its specifications for commercial negotiations”²³⁶ by individual inventors who lack the resources for immediate investment in facilities for commercial exploitation qualify. Khamin urges coverage of such activities to serve the policy objective of promoting innovation by individual inventors and entrepreneurs.²³⁷

In *Stoller Enterprises, Inc. v. Fine Agrochemicals Ltd.*²³⁸ the district court rejected a section 273 defense because it was not timely raised in a response to a summary judgment motion. The court therefore saw no need to decide arguments that the commercial use defense does not apply to pre-development work, even though it resulted in a request for regulatory review by the EPA.²³⁹

Bastian’s AI invention is not a machine or article of manufacture. It is a process. It is not likely to be used in manufacturing, but is likely to be used in other commercial processes such as journalism, advertising, or publishing.

Bastian may not have met the requirement for commercialization of his invention, however. He must have “commercially used the subject matter in the United States, either in connection with an internal commercial use or an actual arm’s length sale or other arm’s length commercial transfer of a useful end result of such commercial use”²⁴⁰ The story depicts his excitement as having received expressions of interest from a venture capitalist. That suggests he is only in the early stages of raising money to embark on commercialization.

5. Effect

The paucity of case law on section 273 does not necessarily mean that it has had little effect. A great many U.S. inventors already were

234. *Id.* at 154 & n. 143 (citing 157 Cong. Rec. S5427 (daily ed. Sept. 8, 2011) (statements of Rep. Blunt and Rep. Leahy)).

235. *Id.* at 154.

236. *Id.* at 155.

237. *Id.* at 155.

238. *Stoller Enterprises, Inc. v. Fine Agrochemicals Ltd.*, 705 F. Supp. 3d 774 (S.D. Tex. 2023).

239. *Id.* at 795-796.

240. § 273(a)(1).

preferring trade secrets over patents, even without the section 273 prior-user-defense. Data published by the National Science Foundation show that, in 2017 and 2018, enterprises preferred trade-secret and trademark protection over utility patent protection.²⁴¹

Now, with the defense available, it is likely that a significant number of firms at the margin, undecided between patent and trade secret protection, are electing trade secret protection because of the greater security provided by section 273. This choice does not depend on winning any lawsuit in which section 273 is at issue, which would produce a reported case citing section 273.

V. THE SOLUTION

The sword of Damocles that worries Bastian is not an accident. The idea that a first inventor who chooses trade secret protection over patent protection should suffer for his choice is consistent with a patent system intended to induce people to give up trade secrets and seek patents instead. While the law, under *Kewanee Oil*²⁴² allows inventors to seek trade secrets and sidestep the patent system, it does so grudgingly. Fearing the sword of Damocles is one of the prices they pay for making that choice.

Earlier users of technology need not fear that they will become infringers of a later issued patent if they use the technology publicly. Their public use represents prior art anticipating a later patent application and making it ineligible for patenting. The problem confronting the fictional Bastian arises only because he has protected his invention as a trade secret. Then his use is not prior art preventing the issuance of a subsequent patent such as the one to the fictional Trey Mullins. Indeed, the patent, by publicizing the content of the trade secret, extinguishes it.

Even if Trey's patent does extinguish Bastian's trade secret, however, Bastian remains free to practice the invention formerly covered by the trade secret unless he infringes the patent.

Bastian Webb does not need to worry; Blaine Abbott's advice was not a trap. Even if Bastian's trade secret matches all the limitation of the patent, resulting in *prima facie* infringement, section 273 of the patent act²⁴³ protects the fictional Bastian against liability for infringement of

241. Brandon Shackelford & John Jankowski, *Three-Quarters of U.S. Businesses that Performed or Funded R&D Viewed Trade Secrets as Important in 2018*, NSF NATIONAL CENTER FOR SCIENCE AND ENTERING STATISTICS (Sept. 2, 2021), <https://nces.nsf.gov/pubs/nsf21339>; see also Wajman & Garcia-Valero, *supra* note 53 (collecting authorities on the preference for trade-secret protection over that of patents).

242. *Kewanee Oil*, 416 U.S. at 470.

243. 35 U.S.C. § 273.

Trey Mullins' patent. It does so, however, only to the extent that Bastian has commercialized his trade secret. The rationale for the commercialization requirement is that only investment-backed expectations should be protected. If Bastian or others in his situation want to obtain protection for not-yet commercialized trade secrets, they may jump to the conclusion that a proposal for congressional amendment to section 273 is appropriate.

Patent reformers are too quick to suggest legislative fixes for all perceived problems. The current proposal for negating the Alice/Mayo test for patent eligibility is an example. Economists and other policy analysts have disagreed for decades—indeed centuries—since Thomas Jefferson's day—over the legitimacy of the government's granting monopolies in the form of patents. Well-established and well-funded interests in industry, the Academy, and the “public interest” community have sharply divergent views on whether patent protection should be narrowed or expansive.

The outcome of any legislative initiative, however meritorious in the eyes of one of these interests, is almost certain to produce a proverbial governmental sausage²⁴⁴ that exacerbates uncertainty and unintended consequences and gores the oxen of other interests.

When it looks like the market is working out problems with established doctrines and statutory provisions, it is far better to leave the law alone and let the market continue its good work.

The market is perfectly capable of evolving an equilibrium, if it has not already done so, that satisfies society's needs for incentives to innovate, protects innovators, and leaves inventors free to choose between trade secret protection or that of a patent, such as they think will best protect their interests. A trade secret licensee, for example, concerned that his licensor may obtain a patent and thus negate the value of his license, can negotiate license terms that provide for transfer of any such patent to the licensee.²⁴⁵ Now he can do it on a more level playing field, thanks to the AIA's re-embrace of prior use rights under section 273.²⁴⁶

244. Steven Luxenberg, *A Likely Story . . . And That's Precisely the Problem*, WASH. POST (Apr. 16, 2005), <https://www.washingtonpost.com/archive/opinions/2005/04/17/a-likely-story-and-thats-precisely-the-problem/b024d6c7-2deb-4dd3-a06b-9008b06930d4/> (reporting on the uncertainty as to origin, referencing the phrase, “Laws are like sausages, it is better not to see them being made.”).

245. See Henry H. Perritt, Jr., *Jerking the Rug out from Under a Trade Secret Licensee: Is Transfer of the Patent a Remedy?* 31 MICH. TECH. L. REV. (2025).

246. 35 U.S.C. § 273.

To be sure, problems exist with the patent system, not least of which include the patent thicket and the patent troll issues.²⁴⁷ But the market is working out solutions to those problems with a combination of defensive disclosure databases in the private sector and the increasing availability of intelligent generative AI searching.²⁴⁸

It almost certainly would be easier and cheaper for Bastian to begin commercialization rather than obtain appropriate relief from Congress. It surely would produce more certain and predictable protection against the Sword of Damocles.

247. Henry H. Perritt, Jr., *Drowning in the Patent Pool: Is Statutory Invention Registration a Lifeguard?*, 127 W.VA. L. REV. 411 (2024) (arguing that private defensive publication databases represent a solution to the patent thicket and patent troll problems).

248. Henry H. Perritt, Jr., *Willful Ignorance or Embracing AI to Find Prior Art? USPTO Misses the Mark*, SMU SCI. AND TECH. L. REV. (2024) (arguing that the USPTO should embrace the power of generative AI searching for prior art).