

WHERE ARE ALL THE PRIOR ART USERS IN
PATENT CASES?

*Mark A. Lemley**

I.	INTRODUCTION.....	326
II.	PRIOR INVENTION & PRIOR USE	328
III.	THE MISSING § 273 CASES.....	332
IV.	WHY AREN'T DEFENDANTS ASSERTING PRIOR USE RIGHTS?	334
V.	TOWARDS A MORE EFFECTIVE PRIOR USE RIGHT	340

LIST OF FIGURES

1.	Figure 1. Number of Patents Issued in the U.S. FY 2000–FY 2023	337 n.53
----	--	----------

* © 2025 Mark A. Lemley. William H. Neukom Professor, Stanford Law School; partner, Lex Lumina LLP. Thanks to Margo Bagley, Jeremy Bock, TJ Chiang, Colleen Chien, Chris Cotropia, Rose Hagan, Tim Holbrook, Sapna Kumar, Brian Love, Glynn Lunney, Robert Matthews, Lisa Ouellette, Jason Rantanen, Jason Reinecke, Michael Risch, Jake Sherkow, Jay Thomas, Greg Vetter, Saurabh Vishnubhakat and participants at the 2015 Works in Progress – Intellectual Property conference for comments on a prior draft and Jack Gleiberman for research assistance.

I. INTRODUCTION

For more than 200 years, patent law denied a patent to an inventor if someone else had invented the same invention first, whether or not they published the invention or sought a patent themselves. If you weren't the first to invent, you weren't entitled to a patent.¹

That changed in 2011. For the past fourteen years, U.S. law has operated under a "first inventor to file" system, in which the law denies a patent only if someone else has filed their own patent application or published or disclosed the invention. That change leaves open the possibility that one person can invent something, use it in their business, and lose the right to use their own invention to someone who later invented and patented the same idea.

To mitigate the potential unfairness of this change, Congress enacted a "prior user right." While the law no longer invalidated patents because someone else had invented them first, it provided a defense to patent infringement for those who were already using the invention if they met certain requirements.²

The adoption of a prior user right in U.S. patent law was a big deal, largely aligning the U.S. with the rule in other countries. Simultaneous or near-simultaneous invention is extremely common,³ so prior use should be as well. Legal and economic scholars had debated the adoption of a prior user right, viewing it as having great consequences (for good or ill) for the scope of patent rights.⁴ And the enactment of the prior user right was viewed as an important counterweight to the elimination of old § 102(g), which denied patents if another

¹ This is a gross oversimplification of the pre-AIA rule. The complications are discussed at *infra* notes 8–14 and accompanying text.

² 35 U.S.C. § 273.

³ Mark A. Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. REV. 709, 711–12 (2012); Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1436–39 (2009).

⁴ Carl Shapiro, *Prior User Rights*, 96 AM. ECON. REV. 92, 95 (2006); Stephen M. Maurer & Suzanne Scotchmer, *The Independent Invention Defense in Intellectual Property*, 69 ECONOMICA 535, 540–42 (2002); Kyla Harriel, *Prior User Rights in A First-To-Invent Patent System: Why Not?*, 36 IDEA 543, 550 (1996); Samson Vermont, *Independent Invention as a Defense to Patent Infringement*, 105 MICH. L. REV. 475, 483–84 (2006); cf. Mark A. Lemley, *Should Patent Infringement Require Proof of Copying?*, 105 MICH. L. REV. 1525, 1527–32 (2007).

had invented first and which was the subject of much consequential litigation in the past several decades.⁵

But a surprising thing has happened in the last fourteen years: virtually nothing. Only four decisions in those fourteen years involve substantive claims of prior use. All are by district courts, and two of those four decisions were made on largely procedural grounds.⁶ Only a single case actually finds prior use by another under the statute.

I document the surprising absence of prior user right litigation. I consider a number of possible reasons for the missing caselaw, none entirely satisfactory. I consider and (mostly) reject explanations that are a function of when and how cases are litigated, the difficulty of detecting non-public uses, and the existence of prior art as an alternative to the defense. Nor does the explanation seem to be that simultaneous use without publication is no longer as important as it once was. Instead, the real reason no one uses the prior user right is likely a function of the significant limits Congress put on the exercise of the right. It may be time to revisit those limits.

In Part I, I describe the background and text of the new prior user right. In Part II, I discuss the few cases that apply the prior user right. In Part III, I consider several possible explanations for the paucity of cases. Finally, in Part IV I suggest reforms to the prior user right to increase its use.

⁵ See *Peeler v. Miller*, 535 F.2d 647, 654 (C.C.P.A. 1976) (failure to file a patent application may constitute abandonment, suppression, or concealment); *Corona Cord Tire Co. v. Dovan Chem. Corp.*, 276 U.S. 358, 372–73 (1928) (same for failure to describe the invention in a publication); *Lutzker v. Plet*, 843 F.2d 1364, 1367 (Fed. Cir. 1988) (same for failure to publicly use); *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1567 (Fed. Cir. 1996) (setting forth standard for intentional suppression or concealment); *Paulik v. Rizkalla*, 760 F.2d 1270, 1273–76 (Fed. Cir. 1985) (holding that the inference of suppression or concealment from a four-year delay between reduction to practice and the filing of a patent application was overcome by the first inventor’s resumption of activity before the second inventor’s date of conception).

⁶ There are two other cases that reject a defense because it was not actually pled. See *Stoller Enters., Inc. v. Fine Agrochemicals Ltd.*, 705 F. Supp. 3d 774, 775–76 (S.D. Tex. 2023) (rejecting § 273 defense because it was not timely raised); *Allfasteners USA, LLC v. Acme Operations Pty., Ltd.*, No. LACV1806929, 2021 WL 4027738, at *15 (C.D. Cal. May 25, 2021) (finding defense forfeited because it was not included in the answer and the deadline to amend pleadings had passed). I exclude those from consideration here.

II. PRIOR INVENTION & PRIOR USE

Before the passage of the America Invents Act (AIA) in 2011, the United States operated under a "first-to-invent" system for resolving patent priority disputes. Priority was awarded to the first person to invent, rather than the first to file a patent application.⁷ Many of those disputes involved two parties who had both submitted patent applications. When two parties claimed the same invention, the U.S. Patent and Trademark Office (PTO) would conduct an "interference" proceeding to determine who invented first, though a significant percentage of the overlapping claims were not caught at the PTO and ended up in court instead.⁸

Not all priority disputes involved two parties who both sought patents, however. Under § 102(g)(2), anyone could invalidate a patent by showing that someone else in the United States had invented it first and had not abandoned, suppressed, or concealed it, even if they did not file their own patent application.⁹ That included companies who implemented the technology but did not seek a patent and inventors who were on the road to publishing their work but hadn't gotten there yet. And indeed, many patents were challenged on those grounds.¹⁰ That is not surprising, given that significant evidence demonstrates that simultaneous or near-simultaneous invention is extremely common.¹¹

⁷ 35 U.S.C. § 102.

⁸ Mark A. Lemley & Colleen V. Chien, *Are the U.S. Patent Priority Rules Really Necessary?*, 54 HASTINGS L.J. 1299, 1330–31 (2003).

⁹ 35 U.S.C. § 102.

¹⁰ The Federal Circuit decided thirty cases applying § 102(g)(2) since the statute was renumbered in 1999 to include that designation, the vast majority of them between 1999 and 2013, before the law changed (a period of time comparable to the time § 273 has now been in force). *See, e.g.,* Solvay S.A. v. Honeywell In'l, Inc., 622 F.3d 1367, 1377 (Fed. Cir. 2010) (holding that § 102(g)(2) did not apply because defendant did not conceive of the subject matter of the invention, and was thus not the first inventor); Dow Chem. Co. v. Astro-Valcour, Inc., 267 F.3d 1334, 1340–41 (Fed. Cir. 2001) (holding that prior inventor need not appreciate the patentability of the invention to take advantage of § 102(g)(2)); Invitrogen Corp. v. Clontech Lab'ys, Inc., 429 F.3d 1052, 1066 (Fed. Cir. 2005) (holding that an unrecognized invention does not count as a prior invention under § 102(g)(2)). Westlaw shows 188 federal cases with some substantive discussion of § 102(g)(2), but I have not investigated each of them to ensure they are all substantive rulings on § 102(g)(2) prior invention.

¹¹ Lemley, *Sole Inventor*, *supra* note 3, at 711–12.

These rules created a complex and often cumbersome process for determining priority; they involved detailed scrutiny of the inventors' activities and documentation. To resolve priority disputes, courts had to consider four different doctrines:

- **Conception:** Who was first to form a definite and firm idea of the complete and operative invention.
- **Reduction to Practice:** Who actually produced a working prototype (actual reduction to practice) or filed a patent application that adequately described and enabled the invention (constructive reduction to practice).
- **Diligence:** The inventor who was first to conceive the invention but last to reduce to practice must demonstrate diligence in reducing the invention to practice from just before the other party's conception date to their own reduction to practice.
- **Abandonment, Suppression, or Concealment.** A party's dates of conception and reduction to practice were largely disregarded if they abandoned, suppressed, or concealed the invention.¹²

Proof of each of these things was challenging. Inventors had to provide corroborated evidence of their invention and dates of conception and reduction to practice. Self-serving declarations were usually insufficient without corroborating evidence.¹³ Courts considered evidence such as lab notebooks, correspondences,

¹² 35 U.S.C. § 102(g).

¹³ See *Price v. Symsek*, 988 F.2d 1187, 1994 (Fed. Cir. 1993) (holding that uncorroborated testimony of an inventor is not sufficient to establish a conception date); *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 968 (Fed. Cir. 2014) (same); *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1670 (Fed. Cir. 2006) (same for reduction to practice).

and prototypes.¹⁴ Disputes were expensive, and often found that the first inventor was not the first to file a patent application.¹⁵

The AIA adopted a "first-inventor-to-file" system, simplifying the process and aligning it more closely with international patent norms.¹⁶ But in moving to a first-to-file system, the law created a stronger preference for filing patent applications than existed in prior law. While the categories of prior art remain basically the same in the new law,¹⁷ a patent application is no longer rejected merely because someone else invented it first. Instead, only if that prior inventor also filed their own patent application first will their prior invention bar someone from getting a patent.

The result is that the new law leaves open the possibility that someone could invent something, work diligently towards publishing it or selling it to the world, and someone else who came up with the same idea later could patent it – gaining not only the right to exclude others from using the first inventor's invention, but potentially even excluding the first inventor themselves.¹⁸

¹⁴ See *Sandt Tech., Ltd. v. Resco Metal and Plastics Corp.*, 264 F.3d 1344, 1350 (Fed. Cir. 2001) ("It is well-established in our case law that a party claiming his own prior inventorship must proffer evidence corroborating his testimony."); *Medichem*, 437 F.3d at 1173 (Fed. Cir. 2006) (recognizing that an "unwitnessed" notebook by a noninventor is of minimal corroborative value); *Medtronic, Inc. v. Teleflex Innovations S.À.R.L.*, 68 F.4th 1298, 1306 (Fed. Cir. 2023) (holding that testimony and purchase orders concerning prototype sufficed to corroborate reduction to practice date).

¹⁵ Lemley & Chien, *supra* note 8, at 1309.

¹⁶ 35 U.S.C. § 102(a)(2). For discussion of the new rules, see Robert P. Merges, *Priority and Novelty Under the AIA*, 27 BERKELEY TECH. L. J. 1023 (2012); Mark A. Lemley, *Does "Public Use" Mean the Same Thing It Did Last Year?*, 93 TEX. L. REV. 1119, 1123–25 (2015) [hereinafter Lemley, *Public Use*].

¹⁷ See *Helsinn Healthcare S.A. v. Teva Pharms. USA, Inc.*, 586 U.S. 123, 364 (2019); Merges, *supra* note 16, at 9; Lemley, *Public Use*, *supra* note 16, at 1125.

¹⁸ There was a similar risk under the pre-AIA regime, but only if the first inventor did not work towards sharing the invention with the world but instead abandoned, suppressed, or concealed it. While some of those cases involved people who came up with an idea and never did anything with it, a different and more troubling subset involved those who chose to keep the information as a trade secret and use it in their business. They not only lost their own right to a patent, but also the power to prevent others from patenting their invention. In *Gillman v. Stern*, for example, where the invention was kept completely secret by the first inventor, Judge Learned Hand held that the invention has been "concealed," which allowed the

To partially counterbalance the elimination of § 102(g)(2) and the risk that a first inventor could end up being found to infringe a patent issued to someone who invented after them,¹⁹ Congress created a prior user right in § 273. Prior user rights are common in other countries that have a first-to-file system,²⁰ and scholars treat them as an important part of the patent balance in first-to-file systems.²¹

Unlike § 102(g), § 273 is not a source of prior art, so it doesn't invalidate a patent.²² Rather, it creates a personal defense to patent infringement for someone who can prove they were using the invention before the patent applicant. The actual defense is limited in important ways. It applies only to process patents or to device or product patents used in a commercial process.²³ It requires that the defendant use the invention more than a year before the patentee files the patent application, and continue using it.²⁴ The defense is personal and cannot be transferred to a third party, and it is limited to continued use at the same physical

second user to patent the invention and to recover against the first user for infringement. 114 F.2d 28, 31 (2d Cir. 1940); *see also* Metallizing Eng'g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 520 (2d Cir. 1946) ("It is a condition upon an inventor's right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy, or legal monopoly.").

¹⁹ The AIA, like its predecessor, treats secret use by the inventor as barring a later patent, but not secret use by a third party. *See* Lemley, *Public Use*, *supra* note 16, at 1132; Joshua Masur & Lisa Ouellette, *Real-World Prior Art*, 76 STAN. L. REV. 703, 732 (2024).

²⁰ Australia, Brazil, Canada, China, Denmark, Germany, France, Mexico, Japan, South Korea, and the UK all recognize prior use rights in one form or another. *See generally* U.S. PAT. & TRADEMARK OFF., REPORT ON THE PRIOR USER RIGHTS DEFENSE 60 (2012), https://www.uspto.gov/sites/default/files/aia_implementation/20120113-pur_report.pdf [<https://perma.cc/FQ28-MMX7>] [hereinafter REPORT ON THE PRIOR USER RIGHTS DEFENSE].

²¹ Shapiro, *supra* note 4, at 95; Vermont, *supra* note 4, at 95; Gary L. Griswold & F. Andrew Ubel, *Prior User Rights – A Necessary Part of a First-to-File System*, 26 J. MARSHALL L. REV. 567, 572 (1993); Jacob Neu, *Patent Prior User Rights: What's the Fuss?*, 66 VAND. L. REV. EN BANC 1, 3 (2013).

²² 35 U.S.C. § 273(g).

²³ 35 U.S.C. § 273(a).

²⁴ 35 U.S.C. §§ 273(a)(2), (e)(4).

location as the prior use.²⁵ But in one important respect it is broader than § 102(g)(2). § 102(g) excluded from the category of prior art things kept as a trade secret.²⁶ Secret prior uses can create a defense under new § 273, by contrast.

III. THE MISSING § 273 CASES

Despite the prevalence of simultaneous invention and the importance of § 102(g) in the 1952 Act, the new prior user right defense has almost never been used in the fourteen years since it went into effect.²⁷ As of September 2024, only forty-six cases cite the new statute.²⁸ My research assistant and I reviewed these cases and found that only four of these forty-six cases substantively decide the post-AIA § 273 prior use defense. None are appellate decisions or even reported district court decisions, and only one case actually applies the defense. The remaining forty-two cases either cite to the pre-AIA version of the statute,²⁹ or do not involve the substantive application of the defense.³⁰ I discuss those four substantive cases below.

- *Pelican Int'l, Inc. v. Hobie Cat Co.*³¹ At summary judgment, the court held that a § 273(a) defense did not apply.³² The prior use, two prototypes developed by the defendant, was “insufficient as a matter of law to support a prior commercial use defense” because those prototypes lacked

²⁵ 35 U.S.C. § 273(e)(1).

²⁶ *See id.* § 102(g) (excluding information that was “concealed” from the scope of prior art).

²⁷ The defense applies to patents issued beginning in 2011. *See Leahy-Smith America Invents Act*, Pub. L. No. 112–29, § 273, 125 Stat. 284, 299 (2011) (“The amendments made by this section [amending § 273] shall apply to any patent issued on or after the date of the enactment of this Act [Sept. 16, 2011].”).

²⁸ We searched Westlaw for opinions citing the section as of October 3, 2024. A few cases cited, but none actually applied, the pre-AIA version of § 273, which was limited to business method patents. *See Pre-AIA 35 U.S.C. § 273.*

²⁹ The earlier version of the statute was limited to business method patents. *See Pre-AIA 35 U.S.C. § 273.*

³⁰ *See, e.g., Celanese Int'l Corp. v. Int'l Trade Comm'n*, 111 F.4th 1338, 1347 (Fed. Cir. 2024) (analyzing whether the AIA’s modifications to § 273 affects the meaning of § 102(a)’s “on-sale” bar).

³¹ No. 20-CV-02390, 2023 WL 2127994 (S.D. Cal. Feb. 10, 2023).

³² *Id.* at *19.

certain claim limitations and therefore would not infringe the claims asserted in the action.³³ The court held that § 273(a)'s "otherwise infringe" language requires the product to "meet[] each and every limitation in a particular claim or claims asserted against it," and rejected the defendant's argument that § 273(a) requires only that the claimed prior use share "subject matter" with the asserted claims.³⁴

- *Dunnhumby USA, LLC v. Emnos USA Corp.*³⁵ On a motion to strike, the court struck the defendant's § 273(a) defense.³⁶ The court held that § 273(a) provides a "personal defense" that is "limited to the entity that actually engaged in the prior commercial activity or directed the prior activity or an entity that controls, is controlled by, or is under common control with the prior user or the entity that directed the prior user at the time the prior commercial activity took place."³⁷ Because the prior user did not have the "power or authority to manage, direct, or oversee" the defendant until *after* the effective filing date, the prior use defense failed.³⁸
- *Vaughan Co. v. Global Bio-Fuels Tech.*³⁹ The court struck the defendant's § 273(a) defense because the only thing the defendant had used prior to the patent was a pump, and the pump was only one component of the patented invention, not the whole claimed invention.⁴⁰ Thus, the defendant concededly could not show that it actually used the patented invention before the filing of the patent.⁴¹
- *Pavemetrics Sys., Inc. v. Tetra Tech, Inc.*⁴² This is the only case that actually applied § 273. The court declined to issue a preliminary injunction in part because a § 273(a) defense raised "substantial questions" about

³³ *Id.* at *18.

³⁴ *Id.* at *19.

³⁵ No. 13-C-0399, 2014 WL 12780170 (N.D. Ill. June 27, 2014).

³⁶ *Id.* at *3.

³⁷ *Id.*

³⁸ *Id.* at *3–4.

³⁹ No. 12-CV-1292, 2013 WL 5755389 (N.D.N.Y. Oct. 23, 2013).

⁴⁰ *Id.* at *11–12.

⁴¹ *Id.*

⁴² No. 21-CV-01289, 2021 WL 2548959 (C.D. Cal. Apr. 15, 2021).

infringement, and thus, the counterclaim patent plaintiff could not show they were likely to succeed on the merits.⁴³ The court found that, to the extent that the accused product infringed on the claim, the defendant was shielded from liability by § 273(a) because there was evidence of commercial use showing that the defendant's product had been "the same materially" for at least two years before the effective filing date.⁴⁴ Though there was some dispute about whether that use met a certain claim limitation, the court noted that there were *other* uses prior to the effective date that also satisfied § 273(a).⁴⁵

It is remarkable that only four unreported district court decisions in the past fourteen years even considered the applicability of a prior user right. Only one of those applied the right, and that one did so in the context of denying a preliminary injunction – something that is extremely hard to get in patent law in any event.⁴⁶

It is possible – likely, even – that defendants are pleading the defense but not using it in court. A quick and non-exhaustive search of Lex Machina found thirty-eight references to a prior use defense in answers.⁴⁷ But that is a tiny fraction of the thousands of answers filed in court each year and seems more consistent with the conclusion that the defense not only isn't featuring in decisions but also isn't being asserted much.

IV. WHY AREN'T DEFENDANTS ASSERTING PRIOR USER RIGHTS?

Where are all the prior user right cases? In this Part, I consider several possible explanations—none of them entirely satisfactory.

⁴³ *Id.* at *8.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ See Carl Shapiro, *Injunctions, Hold-Up, and Patent Royalties*, 12 AM. L. & ECON. REV. 280, 288 n.15 (2010) (noting that in patent cases "[preliminary] injunctions are rare"); Ryan Davis, *Patent Injunctions Drop Sharply in 2018*, LAW360 (Jan. 31, 2019), <https://www.law360.com/articles/1121976/patent-injunctions-drop-sharply-in-2018> [<https://perma.cc/Y3P4-K2S9>] (noting only nine preliminary injunctions were granted in 2017 while forty-one were denied; in 2016, twenty-one were granted and twenty-two were denied).

⁴⁷ We searched www.lexmachina.com for references to "prior use" as a defense in answers to complaints filed beginning in 2012.

The first explanation, and the one I assumed was true for a number of years, is that the absence of precedent was a transition issue. § 273 in its current form applies only to patents issued after September 16, 2011.⁴⁸ For a while, then, it was reasonable to assume that no one was asserting the defense because the patents being litigated were all too old for the defense to apply. To some extent that is still true; empirical evidence suggests that patents are disproportionately litigated near the end of their patent life.⁴⁹ But that's a harder and harder story to tell as time passes. We are more than fourteen years into the new law; more than two-thirds of all the patents in force today are subject to the prior user right.⁵⁰ By now we should be seeing some significant use of the right, particularly since § 102(g)(2), added in the 1999 law to address somewhat similar issues but with a somewhat narrower scope,⁵¹ saw thirty appellate decisions and 188 total federal cases in the same time period, compared to none for § 273.

A variant of this story, suggested to me by Michael Risch, is that the fact that many suits are filed late in a patent's life means that they are being asserted against new products developed much later than the patent. While that will sometimes be true (and how often it is true is an empirical question I can't answer), there is no reason to think all or even most lawsuits fit in that category. As noted above, simultaneous or near-simultaneous invention is quite common. And as Love's data shows, plaintiffs who file suit near the end of patent life are often non-practicing entities who strategically wait until a technology has matured and

⁴⁸ Leahy-Smith America Invents Act, Pub. L. 112-29, § 5(c), 125 Stat. 284, 299.

⁴⁹ Brian J. Love, *An Empirical Study of Patent Litigation Timing: Could a Patent Term Reduction Decimate Trolls Without Harming Innovators?*, 161 U. PA. L. REV. 1309, 1313, 1342 (2013); Mark A. Lemley & Jason Reinecke, *Our More-than-twenty-year Patent Term*, 39 BERK. TECH. L.J. 681, 703-04 (2024).

⁵⁰ Patents last for twenty years from filing, though most patents get some additional patent term. Lemley & Reinecke, *supra* note 49, at 682-83. But the number of patents has been increasing every year. Since 2011, for example, roughly 300,000 utility patents have issued per year on average. For 2004-2010, less than 170,000 utility patents issued per year on average. See U.S. Patent Activity Calendar Years 1790 to the Present, U.S. PAT. & TRADEMARK OFF. (Mar. 13, 2025), https://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_counts.htm [<https://perma.cc/FQ28-MMX7>].

⁵¹ That change expanded § 102(g) prior art to include foreign inventions not otherwise published or sold if they were included in a filed U.S. patent application. That includes some, but certainly not all, prior uses of the invention by another.

defendants are making significant profits before asserting their patents. So, the fact that many lawsuits are filed late in a patent's life does not mean that the defendants began using the technology late. And in any event, even if this is a partial explanation that might reduce the number of suits, it shouldn't render them virtually nonexistent.

A second possible explanation is that no one is litigating the prior user right because it is unnecessary in practice. That could be true for a variety of reasons. First, it may be hard to find secret commercial uses to sue them for infringement in the first place. If so, we may not need a prior user defense as a practical matter because the defendants won't be sued. While this is certainly a partial explanation, I don't think it can be the whole story. We had plenty of suits that involved prior nonpublic users under the old law.⁵²

Perhaps the cases that involve prior user rights are also covered by other doctrines. This could be true, for instance, if prior users who did not previously do so now also file their own patent applications under the new law. If so, they could prevent the other inventor from obtaining a patent without the need for a prior user defense. We know that wasn't always happening before the passage of the AIA; that's why parties litigated many § 102(g)(2) cases. But the AIA's first to file system encourages people to file patent applications, and perhaps it has had that effect.⁵³

⁵² The old and new laws aren't strictly comparable in this respect, because § 102(g)(2) doesn't apply only to nonpublic information. As a practical matter, however, defendants who relied on § 102(g)(2) generally did so because they didn't have an easier public form of prior art such as a patent, printed publication, or public sale to point to.

⁵³ Lemley, *Sole Inventor*, *supra* note 3, at 756–57; Petra Moser, *Innovation Without Patents: Evidence from the World's Fairs*, 55 J.L. & ECON. 43, 55 (2012) (“First-to-file rules may encourage inventors to apply for patents at an earlier stage of the innovation process and thereby may have driven up patenting rates in Britain relative to the United States.” (citation omitted)); Toshiko Takenaka, *Inclusive Patents for Open Innovation*, 29 TEX. INTELL. PROP. L.J. 187, 225 (2021) (“The first -to-file system adopted with the enactment of the AIA has . . . increas[ed] the number of valueless inventions filed, as the system has made it more difficult for applicants to spend the necessary amount of time to fully evaluate the technical and commercial value of their inventions before filing a patent application.”). Note, though, that there is not a discontinuity in the number of patent applications filed before and after March 2013—the effective date of the first to file provisions—as one would expect if this were the explanation. Veera Korhonen, *Number of Patents Issued in the United States from FY 2000 to FY 2023*, STATISTA (Jul. 5, 2024),

Alternatively, it may be that prior users aren't filing their own patent applications but can still show another form of prior art under the new statute. Because the categories of prior art haven't changed in the AIA,⁵⁴ that seems less likely, but the fact that those prior art categories now apply up to the filing date rather than just the other party's invention date may expand the universe of prior art somewhat. So too will the fact that prior art now includes things disclosed after the patentee invented but before they filed their patent application.⁵⁵ More generally, the fact that everything companies do these days tends to be written down, whether in computer files or in emails or other messages, may mean that things that in the past remained secret internal uses can now often be found in

<https://www.statista.com/statistics/256571/number-of-patent-grants-in-the-us/> [https://perma.cc/YG72-S488].

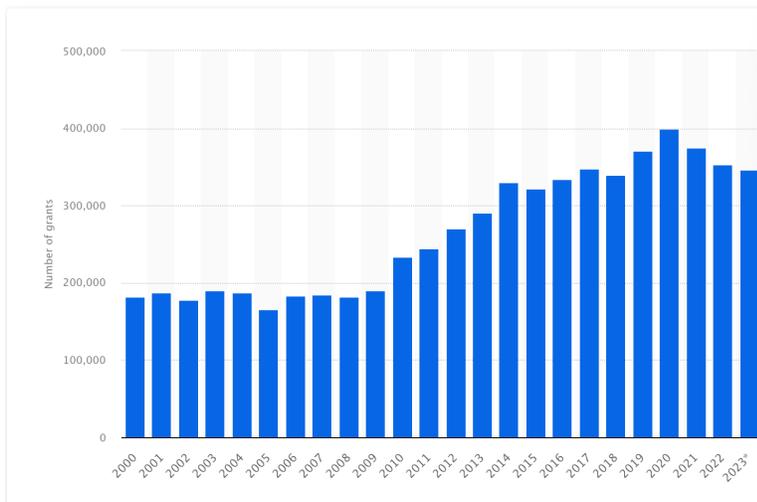


Figure 1. Number of Patents Issued in the U.S. FY 2000–FY 2023
Veera Korhonen, STATISTA (Jul. 5, 2024)

⁵⁴ *Helsinn Healthcare S.A. v. Teva Pharms. USA, Inc.*, 586 U.S. 123, 131 (2019). The AIA did add another category of prior art, a catchall “or otherwise available to the public.” But that provision has not been litigated either. See Timothy J. Holbrook, *Patent Prior Art and Possession*, 60 WM. & MARY L. REV. 123, 163–64 (2018).

⁵⁵ See Timothy J. Holbrook, *Patent Disclosures and Time*, 69 VAND. L. REV. 1459, 1475–76 (2016).

products or in publications such as product catalogs or internet postings.⁵⁶ If so, it may be that the importance of secret commercial use is declining over time because fewer and fewer things are actually kept secret. And defendants are likely to have a strong preference for finding prior art if it exists, not just relying on a prior user defense. Prior art invalidates the patent altogether, protecting the defendant against any liability and giving them a more powerful tool with which to negotiate a settlement. So, companies that can point to a prior publication or public use are likely to do so rather than relying on a defense.⁵⁷ They may also use other means of invalidating patents, like patentable subject matter, which got significantly more use in the decade after the AIA was passed.⁵⁸

Nonetheless, I am skeptical of this explanation, at least as a complete answer. While it is true that more things are documented now than in the past, that doesn't mean secrecy has disappeared. To the contrary, trade secret law seems alive and well,⁵⁹ suggesting that secret commercial uses remain a viable strategy.

⁵⁶ The definition of "publication" has expanded in patent law to reach things like product catalogs and PowerPoint presentations at conferences. *See* *GoPro, Inc. v. Contour IP Holding LLC*, 908 F.3d 690, 695–96 (Fed. Cir. 2018); *In re Klopfenstein*, 380 F.3d 1345, 1352 (Fed. Cir. 2004).

⁵⁷ Some occasionally suggest that a prior user defense requires an admission of infringement. But that isn't true. All defenses, by definition, matter only if the plaintiff succeeds in making out their prima facie case; raising a defense isn't an admission that that case has been made. And pleading in the alternative is quite standard in the law. Nor does the defendant have to say they infringe; they can simply prove that they were using the accused process before the patentee, so if the process infringes, they have a defense. And indeed, in two of the four cases that ruled on the defense, *Pelican* and *Vaughan*, the court rejected the defense because it found that the defendant's use did *not* meet all the elements of the patent claim. *See supra* Part III.

That said, it is possible that defendants fear the jury will misinterpret their claim as an admission of infringement even though it isn't. But that strikes me as unlikely. "I was here first" seems like a very solid intuitive answer to a claim of patent infringement, whether it is couched as a defense or as a claim for invalidity.

⁵⁸ *See generally* Mark A. Lemley & Samantha Zyontz, *Does Alice Target Patent Trolls?*, 18 J. EMPIRICAL LEGAL STUD. 47 (2021) (studying patentable subject matter cases since 2014).

⁵⁹ *See* Josh J. Leopold, *Searching for Standing: Are Improper Acquisition or Threatened Misappropriation of Trade Secrets Cognizable Injuries Sufficient for Article III Standing?*, 90 U. CHI. L. REV. 2261, 2263 (2023) ("Well over a thousand

And there is no reason to think that the frequency of simultaneous invention has decreased over time.

Further, if the explanation were that we don't need prior user rights, whether because no one is suing for infringement or because prior commercial uses all show up in patents or other forms of prior art in a first-to-file system, we should expect prior user rights cases to be similarly rare in other countries. But they aren't. A study of prior user rights across various countries, commissioned by the PTO as part of the AIA, found hundreds of prior user right cases in the United Kingdom, France, Germany, and Japan, even though patent litigation generally is much less common in those countries than it is in the United States.⁶⁰ And while there are other doctrines that can be used to invalidate patents, like patentable subject matter, the actual rate of invalidation has not changed in decades,⁶¹ so the explanation can't be simply that patents are being struck down without need for the defense.

trade secret actions were filed in federal court in 2020 alone, representing a more than 30% increase from the mid-2010s.”).

⁶⁰ U.S. PAT. & TRADEMARK OFF., REPORT ON PRIOR USER RIGHTS 10, https://www.uspto.gov/sites/default/files/ip/global/prior_user_rights.pdf [<https://perma.cc/V3FB-4ZN5>] (reporting 90 cases that went to judgment in Japan, 11 in France, 11 in the UK, and an estimate that in Germany the right was asserted in 2–5% of all cases).

⁶¹ See Mark A. Lemley, *The Surprising Resilience of the Patent System*, 95 TEX. L. REV. 1, 24–25 (2016) (showing that patent validity rates and overall patentee win rates have remained virtually unchanged for decades).

V. TOWARDS A MORE EFFECTIVE PRIOR USE RIGHT

A final explanation for the paucity of prior use cases, and the one that ultimately strikes me as the most persuasive, is the limitations of the U.S. prior user right. The defense has several restrictions that make it less likely to be useful in practice.⁶² First, the defendant must have been using the invention for more than a year before the patentee files their application.⁶³ No such requirement applies to prior art. So, it will often be easier to assert prior art as a defense if there is a publication or sale because doing so gains an extra year of priority. The standard for proving the defense is a high one -- clear and convincing evidence, just as it is to invalidate a patent. And as noted previously, there are substantial advantages to making a prior art claim instead, because doing so will invalidate the patent altogether.

Second, the defense is personal to the company making the use. It can't be transferred when the company is sold, and it can't even be moved to a new physical facility or expanded as the company expands.⁶⁴ That makes it practically useless for many companies, particularly those outside the software industry, where growth requires operating in multiple locations.⁶⁵ Even a company with a successful prior user right defense may settle rather than assert it if the defense won't actually let the company continue to operate without restriction. And a

⁶² See Robert P. Merges, *A Few Kind Words for Absolute Infringement Liability in Patent Law*, 31 BERKELEY TECH. L.J. 1, 38–41 (2016) (noting and praising the limitations of the prior user right); John R. Thomas, *The Scope of the Prior Art*, 93 GEO. L. REV. 54, 99–103 (2025) (criticizing the limitations of the doctrine). For a discussion from a practitioner's perspective, see Coby Nixon, *Whatever Happened to Prior User Rights*, NIELSEN IP (Sept. 2, 2020), <https://nielsenip.com/whatever-happened-to-prior-user-rights/> [perma.cc/8CSF-PEM7]. He points to other practical concerns than the ones I identify here, such as the fact that the defense may apply only as to some claims and that there is a risk of having to pay the plaintiff's attorneys fees in some circumstances.

⁶³ 35 U.S.C. § 273(a)(2).

⁶⁴ *Id.* § 273(e)(1). Customers who buy products made using a process that is subject to a prior user defense are, however, protected from downstream liability through the exhaustion doctrine. *Id.* § 273(d).

⁶⁵ Even the software industry may find this limitation challenging, as Greg Vetter argues. Greg R. Vetter, *Are Prior User Rights Good for Software?*, 23 TEX. INTEL. PROP. L.J. 251, 309–10 (2016).

company that has a defense can't be sold without losing the defense, making the company much less valuable.⁶⁶

Third, the defense applies only to uses identical to those in the patent claims.⁶⁷ That distinguishes it from old § 102(g)(2), which not only prevented an identical patent but created prior art that could be the basis for an obviousness argument if the patentee claimed something similar but not identical to what the prior user had already been doing.⁶⁸ And as a practical matter it may make it difficult to avoid an entire patent even if the defendant can point to prior use of a single claim of the patent.⁶⁹

Prior user rights outside the United States don't have the same limits. Australia, Brazil, Canada, China, Denmark, Germany, France, Mexico, Japan, South Korea, and the United Kingdom, for instance, all extend prior user rights to any use before the priority date, while the United States requires that the use happen at least a year earlier.⁷⁰ Many countries allow rights to accrue without prior commercial use. France allows a prior user right upon proof of "possession" of the invention, Germany and Japan allow preparations to use the invention to count, and Denmark allows a use to count even if it was later stopped.⁷¹ Germany, France, and the United Kingdom all allow rights to be used by the entire company, not limited to a specific plant or facility.⁷² The United Kingdom and Japan extend prior user rights to uses that were similar but not identical to the patented use.⁷³

⁶⁶ The sale of the company is what defeated the defense in *Dunnhumby*, for example. See *Dunnhumby USA, LLC v. Emnos USA Corp*, No. 13-C-0399, 2014 WL 12780170, at *3–4 (N.D. Ill. June 27, 2014).

⁶⁷ 35 U.S.C. §§ 273(e)(3), (g). This defeated the defense in *Pelican*. See *Pelican Int'l*, 2023 WL 2127994, at *18.

⁶⁸ *In re Bass*, 747 F.2d 1276, 1286 (C.C.P.A. 1973) (holding that § 102(g) "secret" prior art could be the basis for an obviousness ruling).

⁶⁹ Vetter, *supra* note 65, at 302 (Similarly, Vetter suggests that software may face particular challenges.).

⁷⁰ REPORT ON THE PRIOR USER RIGHTS DEFENSE, *supra* note 20, at 20, 21.

⁷¹ *Id.* at 14–15.

⁷² *Id.* at 23–24.

⁷³ *Id.* at 24.

The combination of these factors means that the prior user right adopted in U.S. law is somewhat illusory compared to prior user rights elsewhere. The U.S. right doesn't offer much protection, and so people haven't used it.⁷⁴

This is a problem. The result is to create a hole in patent law's novelty doctrine that allows patent owners not only to patent things they weren't first to invent but, in many cases, to sue the people who *were* the first inventors. Given the prevalence of simultaneous invention and the fact that almost all patent lawsuits are filed against independent inventors, not those accused of copying from the patent owner,⁷⁵ the United States should close that loophole by conforming its prior user right to those in other developed countries.

First, use prior to the patentee's effective date should trigger the defense, just as a public use or sale prior to the effective date would be prior art.⁷⁶ Second, the law should allow the kinds of uses that a company would make in practice. That includes moving to new plants, hiring contractors, and making minor modifications to the product being used. A prior user right shouldn't be sellable on its own, but the company should be entitled to operate its business as it normally would, free from the artificial limitations of how the process operates or the physical facility at which it is used.

Finally, I consider two possible counterarguments to justify a weaker prior user right defense. First, some argue that we already have insufficient incentives to invalidate patents, because choosing to invalidate a patent is not an unalloyed good for companies. An invalid patent can't be asserted against their competitors either, so a defendant that invalidates a patent is effectively providing a public good for free to competitors.⁷⁷ As a result, some defendants who identify obscure

⁷⁴ Thomas, *supra* note 62, at 101 (“[O]ur current prior commercial user defense is so narrowly drawn as to be inadvisable to assert and, even if asserted, all but unavailable.”).

⁷⁵ Cotropia & Lemley, *supra* note 3, at 1459.

⁷⁶ Obviously, a company that got the invention from the patentee shouldn't be able to assert a prior user defense. § 273 already denies a prior user right in that situation. 35 U.S.C. § 273(e)(2) (“A person may not assert a defense under this section if the subject matter on which the defense is based was derived from the patentee or persons in privity with the patentee.”). The AIA similarly deals with a parallel problem—people getting the idea from an inventor and then patenting it first—by denying patents to those who derived the invention from another. 35 U.S.C. § 102(b)(2)(A). But that sort of derivation seems to be rare, and it has not been litigated much.

⁷⁷ See Joseph Farrell & Robert P. Merges, *Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 BERKELEY TECH. L.J. 943, 962 (2004);

prior art settle with the patent owner instead, keeping the patent alive for the plaintiff in return for a sweetheart deal.⁷⁸ Having a personal defense as an option may encourage companies at the margin to choose that route rather than to invalidate the patent.

Nonetheless, the limitations of the prior user defense mean that the certainty that comes with invalidating the patent likely outweighs those negatives. And the choice is not between having an infringement defense and invalidating the patents based on prior use; we already changed away from such a system. Given that we have opted for a defense, it makes sense to make it as effective as possible.

Second, some argue that having a robust prior user right would reduce incentives for companies to patent rather than keep their inventions secret, and that the world will benefit from the disclosure of those inventions that comes with patenting. I am skeptical of both the factual and normative premises of this claim.⁷⁹ As a factual matter, patent law provides a right that is quite a bit stronger than trade secrecy does for most types of inventions,⁸⁰ so it is not obvious that companies will decide to forego patent protection because of a marginal change in the defenses they could assert if they were sued. As a normative matter, it is also not clear to me that we should encourage people to file more patents. The disclosure benefits of patents are often illusory, particularly in the IT industries, given the number of other sources of information, the vagueness of the patents, and the speed with which the industry changes.⁸¹ The risk of secrecy lasting longer than twenty years also seems much less in most industries than it used to be. And

Gideon Parchomovsky & Alex Stein, *Intellectual Property Defenses*, 113 COLUM. L. REV. 1483, 1487, 1513 (2013) (noting that society has an interest in the outcome of defenses that benefit others); Roger Ford, *Patent Invalidity Versus Noninfringement*, 99 CORNELL L. REV. 71, 110 (2013).

⁷⁸ See Mark A. Lemley & Jacob Noti-Victor, *Anticompetitive Acquiescence* (random musings in progress 2024).

⁷⁹ See also Vetter, *supra* note 65, at 306–07.

⁸⁰ See Cotropia & Lemley, *supra* note 3, at 1423–27 (showing that almost all patent suits are filed against independent inventors rather than copiers, and trade secret law does not prevent independent invention).

⁸¹ See Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 31 (2007); Lemley, *Sole Inventor*, *supra* note 3, at 745–46 (making this argument and collecting sources). *But see* Lisa Ouellette, *Do Patents Disclose Useful Information?*, 25 HARV. J.L. & TECH. 531, 533 (2012) (finding that scientists in many fields read patents).

the potential costs are substantial, because unused patents often end up in the hands of patent trolls.

In short, I think there is a solid case for strengthening the prior user right to make it comparable to the right in other countries. Making these changes will bring the United States prior user right into closer conformity with the rest of the world, a reasonable goal given that the whole point of the AIA's move to first to file was to more closely harmonize patent novelty with the rule in other countries. And it would ensure that first inventors who decided not to patent – or who lost out in the race to the patent office – aren't deprived of the right to use their own invention.