Did Learned Hand Get It Wrong?: The Questionable Patent Forfeiture Rule of Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.

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As Congress stands on the verge of passing patent reform legislation that will grant patent priority to those who are first to file rather than first to invent, an old chestnut of a case penned by Judge Learned Hand some 65 years ago has attracted the attention of lawmakers and commentators. The case of Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co. dealt with the thorny problem of granting patents those who have, for some time before patenting, practiced their inventions in secret. The Second Circuit held that one who competitively exploits a secret invention at a time that precedes the filing of a patent application on that invention by a year or longer forfeits the right to the patent. While the rule of Metallizing, though never codified, has been widely followed by other courts, the 2011 debates have raised the question of whether the Metallizing forfeiture should be retained in a first-to-file world.

In this Article, I approach the problem of the Metallizing bar from a different angle, arguing that, even in a first-to-invent world, the rule is unsupportable and undesirable. I demonstrate that Judge Hand’s opinion reflects a serious misreading of precedent and is inconsistent with the text of the Patent Act then (and now) in force. In addition, the outcome of Metallizing is inequitable on the facts of the case, which I have gleaned from the district court’s opinion and analyzed in detail in the Article. In spite of all of these problems, other courts have adopted the Metallizing rule in seeming deference to Judge Hand.

More importantly, Judge Hand’s stated policy rationales for the rule, encouragement of prompt disclosure of patentable inventions and prevention of a de facto extension of a patent monopoly term, are highly questionable in view of modern understandings of patent law. I argue that the former rationale is weak due to failures in the disclosure function of patents, and that maintaining the Metallizing rule for reasons of encouraging disclosure may in fact contribute to undesirable overpatenting and, surprisingly, encourage increased secrecy. As for the rationale of preserving fidelity to the length of the patent term, it is clear that trade secret protection that precedes the patenting of a secret invention does not provide a patent owner with any kind of a legal monopoly.

Hiding behind this second rationale is Judge Hand’s desire to punish patentees for delaying applications on patent-ready inventions. While the rule may thus protect the public from so-called submarine patents, the harms of a strict one-year bar against patents on inventions that are neither in public use nor on sale likely outweighs its benefits. Indeed, arguably the most important policy reason for the patent system—to provide an incentive for researchers to engage in inventive activities—is disserved by the...
Metallizing rule, which in many cases might force inventors to make the difficult patent/trade secret choice before they have enough information to decide which form of intellectual property protection is more appropriate. Courts should deal with potentially serious problems caused by deferred patent protection, which incidentally can harm society whether or not the underlying invention is commercially exploited, by returning to the equitable doctrines against unexcused delay of patenting. Metallizing unjustifiably turned these doctrines, which took into account the length of the delay, conduct of the patentee, and other factors in deciding whether a patent should be forfeited, into a strict, unforgiving one-year bar. Thus, whether or not the United States ultimately transitions to first-to-file, I call for the overruling or abrogation of the Metallizing rule.
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“[E]quity does not seek for general principle, but weighs the opposed interests in the scales of conscience and fair dealing.”1

I. INTRODUCTION

In his fifty-two years of service as a federal judge,2 Learned Hand penned some of the most famous decisions in the history of intellectual property law. 

Nichols v. Universal Pictures Co.3 in copyrights, 

Bayer Co. v. United Drug Co.4 in trademarks, and 

Parke-Davis & Co. v. H.K. Mulford Co.5 in patents are opinions that are both persuasive and analytically useful, influencing future courts for years to come. Judge Hand is rightly considered one of the greatest jurists in American history,6 and his intellectual property jurisprudence has been singled out as particularly perceptive and valuable to the development of the law.7 A rare exception to the universal praise Judge Hand has received is an article by Kenneth Port, who strongly criticized Hand’s trademark law decisions.8 To my knowledge, an analogous attack has not been lodged against Hand’s patent law jurisprudence; many of Hand’s patent opinions have withstood the test of time and continue to be taught, cited, and followed widely.9 This article is about one such case,

1 Dwinell-Wright Co. v. White House Milk Co., Inc., 132 F.2d 822, 825 (2d Cir. 1943) (Hand, J.).
3 45 F.2d 119 (2d Cir. 1930) (introducing the “levels of abstraction” test in copyright law).
4 272 F. 505 (S.D.N.Y. 1921) (establishing the concept known in contemporary trademark doctrine as “genericide”).
5 189 F. 95 (C.C.S.D.N.Y. 1911) (holding that natural extracts are patentable subject matter).
7 Gerald Gunther, Learned Hand: Outstanding Copyright Judge, 41 J. COPYRIGHT SOC’Y USA 315 (1994); Oskar Liivak, Rethinking the Concept of Exclusion in Patent Law, 98 Geo. L.J. 1643, 1646 (2010) (“Judge Hand] was, and continues to be, one of the most venerated judges to ever preside over a patent case.” (citing GUNThER, supra note 2, at 306-15)); Stephen H. Philbin, Judge Learned Hand and the Law of Patents and Copyrights, 60 Harv. L. Rev. 394 (1947).
8 Kenneth L. Port, Learned Hand’s Trademark Jurisprudence: Legal Positivism and the Myth of the Prophet, 27 Pac. L.J. 221, 224-25 (1996) (“Hand’s superlative reputation in the area of substantive trademark law is not only unearned, but is based on complete myth. Very few Learned Hand trademark decisions should be cited today as controlling law. This is not a great legacy for ‘the greatest judge in the history of the federal courts of appeals.’” (quoting Richard A. Posner, The Material Basis of Jurisprudence, 69 Ind. L.J. 1, 31 (1993))).
The case held that one who “competitive[ly] exploit[s]” a secret invention at a time that precedes the filing of a patent application on that invention by a year or longer forfeits the right to the patent.11

Although the case has been on the books for more than 65 years, the Metallizing rule, it appears,12 has never been directly criticized or even seriously questioned in subsequent judicial decisions, and received surprisingly little scrutiny from academic commentators.13 The two rationales for the rule, encouragement of prompt disclosure of patentable inventions and prevention of a de facto extension of the patent monopoly term, have been embraced by the Supreme Court, which however never approved the actual rule since a case on the facts of Metallizing has never reached the Court.14 To be sure, commentators have pointed out that the rule is a bit of an oddity.15 Metallizing makes it clear that secret commercial uses
by inventors are to be treated differently than those by third parties; the latter will not invalidate the inventor’s patent.\textsuperscript{16} The Patent Act’s “statutory bars” to patent rights make no such distinction, with the language focusing on the history of “the invention”: “[a] person shall be entitled to a patent unless . . . the invention was . . . 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.”\textsuperscript{17} Thus, even a cursory glance at § 102(b) reveals that \textit{Metallizing} is inconsistent with the plain language of the Patent Act, which makes “the invention” the grammatical subject of the sentence and does not single out the inventor’s own activities in contradistinction to those of others.\textsuperscript{18} In addition, it is not immediately clear how profiting from a secret invention results in a public use or places the invention on sale; adjectives “secret” and “public” contradict one another (they are antonyms), and courts ordinarily define “sale of an invention” as the sale of that which embodies the claims of a patent, not the sale of some secret machine or process that creates the item being sold.\textsuperscript{19}

There are other odd things about the case. For one thing, in \textit{Metallizing}, Judge Hand essentially overruled himself, declaring that the opinion he wrote in an earlier case with closely analogous facts, \textit{Peerless Roll Leaf}, was simply wrong.\textsuperscript{20} A clear reason for this departure from stare decisis is not to be found in the opinion. \textit{Metallizing} made no indication, as the Supreme Court had carefully done in overruling one its important precedents a few years earlier, that the discarded rule was such “a departure from the principles which have prevailed in the interpretation of [the relevant legal authorities] before and since the decision and that such vitality, as a precedent, as it then had has long since been exhausted.”\textsuperscript{21} Nor did Judge Hand give anything like reasons for abandoning stare decisis articulated by the modern Supreme Court. He did not attempt to argue that the rule of \textit{Peerless Roll Leaf} has became “unworkable,” “could be removed without serious inequity to those who have relied upon it,” or became “a doctrinal anachronism discounted by society,” or that \textit{Peerless}’ “premises of fact have so far changed in the ensuing . . . decades as to render its central holding somehow irrelevant or unjustifiable.”\textsuperscript{22}

\begin{footnotes}
\item[16] \textit{Metallizing}, 153 F.2d at 518.
\item[18] Cf. id. § 102(c) (2006) (“A person shall be entitled to a patent unless . . . he has abandoned the invention”) (emphasis added).
\item[19] See, e.g., Pfaff, 525 U.S. at 68. While Pfaff deals with apparatus claims, the situation is more complicated for process claims, whose “sale” involves performance of the method for consideration or sale of a machine that can perform the steps of the process. See \textit{In re Kollar}, 286 F.3d 1326, 1332-33 (Fed. Cir. 2002). Note, however, that the \textit{Metallizing} rule applies to both process and apparatus claims, invalidating commercial exploitation of “secret machines” through sales of products made with their aid.
\item[20] \textit{Metallizing}, 153 F.2d at 518 \textit{(overruling} Peerless Roll Leaf Co. v. Griffin & Sons, 29 F.2d 646 (2d Cir. 1928) (Hand, J.).
\item[21] United States v. Durby Lumber Co., 312 U.S. 100, 116 (1941) \textit{(overruling} Hammer v. Dagenhart, 247 U.S. 251 (1918)).
\item[22] Planned Parenthood of S.E. Pa. v. Casey, 505 U.S. 833, 855 (1992); see also \textit{Citizens United v. Fed. Election Comm’n}, 130 S. Ct. 876, 912 (2010) (“Beyond workability, the relevant factors in deciding whether to adhere to the principle of \textit{stare decisis} include the
\end{footnotes}
While Judge Hand briefly discussed congressional intent to justify his ruling, he relied primarily on a Supreme Court case that predated the relevant statute by several years. To compound the mystery of *Metallizing*, the opinion had to distinguish another case decided six years earlier, where Judge Hand again wrote the opinion, which established the rule that commercially exploited third-party secret activities pose no threat to patenting under the statutory bars. Finally, neither *Metallizing* nor the cases that followed it ever made it clear whether the bar to the patent right created in that case was really a public use bar or an on-sale bar within the meaning of what is now § 102(b), or some tertium quid—a non-statutory third species of a bar. While Hand speaks of an inventor’s patent-defeating secret activities as a peculiar species of “public use,” the language of “competitive exploitation” implicates the policies of the on-sale bar. The two statutory bars are certainly related, but the policies behind the on-sale and public use provisions are distinct and the two sets of doctrinal rules regarding what it means to be in “public use” or “on sale” are quite independent of one another, though courts have been known to conflate the antiquity of the precedent, the reliance interests at stake, and of course whether the decision was well reasoned. (citing Montijo v. Louisiana, 129 S. Ct. 2079, 2088-89 (2009)).

*Metallizing*, 153 F.2d at 520.

Id. at 518-20 (citing Pennock v. Dialogue, 27 U.S. (2 Pet.) 1 (1829)). The provision of the Patent Act analogous to the modern statutory bars of § 102(b) was initially adopted in 1836 and amended to give a two-year “grace period” to inventors in 1839. The grace period has subsequently been reduced to one year. *Metallizing*, 153 F.2d at 520. For further discussion of the role of Pennock in the *Metallizing* decision, see infra notes 144-160, 359-361 and accompanying text.

See Gillman v. Stern, 114 F.2d 28 (2d Cir. 1940), cert. denied, 311 U.S. 718 (1940).

*Compare* Ubel, supra note 13, at 416 n.48 (“the *Metallizing* decision is a non-statutory bar” which is not subject to the “in this country” limitation of § 102(b)), with Winslow B. Taub, Comment, *Blunt Instrument: The Inevitable Inaccuracy of an All-or-Nothing On-Sale Bar*, 92 Calif. L. Rev. 1479, 1498 (2004) (“Courts interpreting the on-sale bar have recognized many of the economic consequences of imposing the bar], though generally not all in a single case. In *Metallizing* . . . , the Second Circuit observed that a sale by an inventor may forfeit the right to a patent in two ways: by ‘abandon[ing]’ the invention to the public or by ‘competitive exploitation’ of the invention too long before the filing date.”) (alternations in original) (footnotes omitted), and Charles W. Wells & Wayland S. Riggins, *Public Use and Sale As a Bar to Obtaining a Patent and Its Application to Government Activities*, 18 Am. U. L. Rev. 42, 48-49 (1968) (characterizing the *Metallizing* decision as applying the public use bar); see also infra Part II.D.2 (detailing the Federal Circuit’s inconsistent rationales in cases applying the *Metallizing* bar).

*Metallizing*, 153 F.2d at 517, 520; see also Stephen Bruce Lindholm, Comment, *Revisiting Pfaff and The On-Sale Bar*, 15 Alba. L.J. Sci. & Tech. 213, 241 (2004) (“Although Judge Hand continued to use the phrase ‘public use,’ he spoke in terms of two doctrines that the Federal Circuit later identified with the on-sale bar and the public-use bar, respectively.”) (footnotes omitted); Taub, supra note 26, at 1498.

See Continental Plastic Containers v. Owens Brockway Plastic Prods., 141 F.3d 1073, 1078-79 (Fed. Cir. 1998) (“Tone Bros. is a ‘public use’ case. We see no reason to extend the analysis to the ‘on-sale’ context. ‘Public use’ and ‘on-sale’ bars, while they share the same statutory basis, are grounded on different policy emphases.”) (Rich, J.) (citing Tone Bros., Inc. v. Sysco Corp., 28 F.3d 1192, 1198-99 (Fed. Cir. 1994)); Dart Indus., Inc. v. E.I. du Pont de Nemours & Co., 489 F.2d 1359, 1364 (7th Cir. 1973) (“We first note that 102(b) contains several distinct bars to patentability, each of which relates to activity or disclosure more than one year prior to the date of the application. Two of these—the ‘public use’ and the ‘on-sale’ objections—are sometimes considered together although it is quite clear that either may apply when the other does not.” (Stevens, J.).) But see infra notes 369-377 and accompanying text (illustrating how public use and on-sale bar serve closely related purposes).
two bars. Because the rule is not supported by the plain language of the statute, it is probably most logical to view the Metallizing bar as non-statutory. Nevertheless, it clearly must have some relationship to the statute because Metallizing, like the bars specified in § 102(b), sets the critical date at one year before the patent application. The precise nature of the relationship between the holding of Metallizing and the Patent Act, however, has yet to be articulated. Although the Supreme Court has never actually examined the Metallizing rule, other circuits have followed it readily. The Court of Appeals for the Federal Circuit, which has exclusive jurisdiction over patent appeals, embraced the Metallizing bar shortly after the court’s creation in 1982, though its opinions arguably did little to clarify the doctrine. Without fail, courts have found Hand’s two rationales for the forfeiture rule, prompt disclosure and fidelity to the patent term mandated by the statute, to be persuasive. The defining sentence in the opinion, “[the patentee] must content himself with either secrecy, or legal monopoly,” has been quoted with apparent approval by the Supreme Court, courts of appeals, district courts, and patent law casebooks. Indeed, the Metallizing rule appears to

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29 See Katherine E. White, A General Rule of Law Is Needed To Define Public Use in Patent Cases, 88 Ky. L.J. 423, 429 (2000) (“In looking at the totality of the circumstances, the courts are not required to treat the public use and on sale bars as serving distinct and clear purposes. Because a more rule-oriented approach in analyzing these issues has not been used, their distinct and separate purposes have been overlooked.”).
30 “Critical date” is the date that is one year before the filing of the patent application. If the invention is placed in public use on sale before the critical date, the patent is invalid. See 35 U.S.C. § 102(b) (2006).
31 2 Chisum on Patents, supra note 15, § 6.02[5][c], at 6-71. One author described the distinction between first and third parties that courts have read into § 102(b) as an example of a “policy polymorphism.” Jonathan R. Siegel, The Polymorphic Principle and the Judicial Role in Statutory Interpretation, 84 Tex. L. Rev. 339, 364-65 n.131 (2005). Siegel noted that, “for policy reasons, secretly practicing a process and selling the output both is and is not a ‘public use’ of the process within the meaning of § 102(b), depending on who does it.” Id. (emphasis in original).
32 See infra note 183 and accompanying text.
33 See infra Part II.D.
35 D.L. Auld Co. v. Chroma Graphics Corp., 714 F.2d 1144, 1147 (Fed. Cir. 1983) (“If [the patent owner] produced an emblem by the method of the invention and offered that emblem for sale before the critical date, the right to a patent on the method must be declared forfeited.”) (citing Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516 (2d Cir. 1946)).
37 Metallizing, 153 F.2d at 520.
38 See supra note 14 and accompanying text.
40 For a recent example, see Minemyer v. B-Roc Representatives, Inc., 695 F. Supp. 2d 797, 806 (N.D. Ill. 2009).
41 Craig Allen Nard, The Law of Patents 287 (2008); see also Merges & Duffy, supra note 9, at 533-35.
be as much a part of patent law as the Patent Act itself. But the fact that a common law rule has been followed for a long time does not make it immune from attack. The venerable judge-made doctrine of equivalents, which dates back to the nineteenth century and has been clearly affirmed by a 1950 Supreme Court decision, has faced and continues to face severe criticism, though it ultimately survived a relatively recent Supreme Court challenge. One wonders if the hagiography of Judge Learned Hand, whose reputation is so strong that his name is frequently mentioned in “invocations” by judges who cite his opinions, has something to do with the lack of criticism of Metallizing.

I contend that this judge-made patent forfeiture rule does more harm than good, and should be reexamined by the Federal Circuit or the Supreme Court in an appropriate case, or abrogated by statute. It is difficult to say whether Metallizing was correct as a matter of policy at the time it was decided. What I am sure of is that, today, the rule is contributing to certain persistent problems in the patent system. More fundamentally, the two policy rationales advanced by Judge Hand are at least debatable. For example, recent scholarly work, which questions traditional descriptive accounts of the value of patent disclosure and reevaluates the importance of the disclosure rationale for patent law, provides ammunition for displacing the first pillar on which Metallizing rests. The second pillar may not fare much better. The “extension of monopoly” language is misleading at best, as it is unclear precisely what kind of a monopoly a commercializer of a secret invention really has.

This article proceeds in four parts. Part II, which follows this Introduction, reviews the Metallizing case itself, noting that the Court of Appeals’ ruling is in considerable tension with the text of the Patent Act in force in 1946 and with precedents on patent forfeiture and abandonment. This Part explains that the opinion misapprehends the equitable dimensions

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42 NARD & WAGNER, supra note 15, at 91 (“The Metallizing principle is now well established.”) (citations omitted).
48 See Port, supra note 8, at 221 n.2.
49 For a recent example, see Dippin’ Dots, Inc. v. Mosey, 476 F.3d 1337, 1344 (Fed. Cir. 2007).
50 See infra Part III.
51 See infra Part III.A
52 See infra Part III.B. This part also explores whether Judge Hand’s problem with patenting of commercially exploited secret inventions has more to do with delay, rather than extension, of the patent monopoly and addresses this view of the Metallizing case.
53 In contrast, the ruling of the District Court was faithful to both statute and precedent. See infra Part II.B.2.
of the cases it relies on, and ultimately reaches an inequitable result. This Part also looks at the Metallizing rule in action, reviewing the circumstances where courts invalidated patents by relying on Metallizing, and examines some representative cases where patents survived validity challenges based on the Metallizing rule. Part III closely analyzes and critiques the disclosure and “extension of monopoly” rationales of the Metallizing case in order to understand whether the patent forfeiture rule that they support is correct. This Part considers benefits and harms of disclosure and reviews the features of patent law, including the Metallizing rule, that encourage (if not force) inventors to opt promptly into the patent system. It then connects this balancing analysis to the work of other scholars who question whether early patenting is desirable. Part III also challenges the view that trade secret followed by patent protection results in harmful extensions or delays of a monopoly; as with the discussion of disclosure, it considers both benefits and harms of competitive exploitation of secret inventions. In the course of this analysis, this Part shows that Pfaff v. Wells, the Supreme Court’s leading on-sale bar case, did not endorse the Metallizing rule even though it quoted Metallizing with approval. It also explains that “patent term extension,” such as it is, may be salutary in some situations. Overall, Part III demonstrates that Judge Hand’s rationales do not support the rule he created in Metallizing. The Conclusion recapitulates the reasons why Metallizing was wrongly decided, notes that its methodology is inconsistent with the Supreme Court’s modern patent law jurisprudence, and calls for the Metallizing rule to be abrogated or overruled.

II. Metallizing: The Invention, the Case and the Rule

A. The Invention and the Patent-in-Suit: An Introduction

On reading the pithy (just three and a half pages of the Federal Reporter) appellate opinion, one gets the impression that the facts of Metallizing are relatively simple. An inventor named Frank Meduna developed a method for refurbishing surfaces of machine parts and other metal objects by improving upon a process called “metalizing.” Prior to Meduna’s invention, it was known that corroded or worn-down metal parts—be they steel plate components of factory machines or beams used to support bridges—could be reconditioned by spraying molten metal onto

55 The House version of the patent reform bill current as of this writing contains a provision that, according to some commentators, may abrogate the rule of Metallizing. See, e.g., Ted Sichelman, Fixing the “First Inventor To File” One-Year Grace-Period Provision of the Patent Reform Bills, PATENTLY-O (Apr. 12, 2011), http://www.patentlyo.com/patent/2011/04/fixing-the-first-inventor-to-file-one-year-grace-period-provision-of-the-patent-reform-bills.html. Even if the law is changed, however, the Metallizing rule would still apply to all the patents issued prior to the reform bill’s adoption, and should be overruled by a judicial decision for reasons discussed in the article. Sichelman favors the retention of the Metallizing rule by Congress, but, as the article makes clear, I disagree with Sichelman’s recommendation.
56 Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 517 (2d Cir. 1946), cert. denied, 328 U.S. 840 (1946). The name of the process is apparently spelled with one “l,” in contrast to the name of the company. I follow this distinction throughout the article.
their surfaces.\textsuperscript{57} The problem, however, was that the layer of sprayed metal did not always bond well with the native surface and would often come off if the surface was not primed in any way.\textsuperscript{58} To solve this problem, prior inventors used “mechanical roughening or heating”\textsuperscript{59} of the surface on which the molten metal was to be applied. The roughening process, which created grooves on the surface that would fill up with the spray, could be accomplished by blasting the surface with sand or grit.\textsuperscript{60} As Meduna noted in his patent, however, this approach “will not often yield a surface capable of bonding applied spray metal with a satisfactory degree of bond,”\textsuperscript{61} especially for hardened metal surfaces. The other approach, heating, would sometimes warp the metal parts, ultimately making them unusable.\textsuperscript{62}

Meduna discovered an alternative solution. Using an electrode, he repeatedly applied an electric current to surfaces that needed to be repaired, resulting in deposits of small amounts of electrode metal onto the surfaces.\textsuperscript{63} These “projections,” which significantly improved the ability of the spray metal to bond to the surface, could be patterned in various ways (and further modulated by varying the electrode metal) depending on the condition and chemical characteristics of the surface to be refurbished, resulting in a highly modular, versatile method for preparing surfaces for spraying.\textsuperscript{64} While Judge Hand noted that the deposition method itself was known in the art, accomplished by means of a “McQuay-Norris machine” which “[the inventor] used . . . unchanged,”\textsuperscript{65} he did not question the novelty of the application of the machine to the preparation of metal surfaces for metalizing.\textsuperscript{66} The patent is, indeed, highly focused on the process of priming metal surfaces: it contains eight independent and three dependent claims, all directed to “improvement[s]” in the “method for applying spray metal to a metal surface with a high degree of bond.”\textsuperscript{67}
In district court proceedings, in addition to its attacks on the patent based on the inventor’s own activities, the defendant unsuccessfully challenged the validity of the patent on various theories of anticipation by other inventors and lack of “patentable invention,”68 as well as claim definiteness.69 Anticipation issues, however, were not examined on appeal, as the panel found that the case could be disposed of on a theory of invalidity arising ostensibly from the inventor’s “public use.”70 Thus, Judge Hand stated that “[t]he only question we find necessary to decide is as to Meduna’s public use of the patented process more than one year before [the patent application date of] August 6, 1942.”71 Summarizing some of the district judge’s findings of fact, Hand noted that “the inventor’s main purpose in his use of the [new metalizing] process prior to August 6, 1941, was commercial” and that “the use [of the process] was not public but secret.”72 After describing the invention and briefly restating these selected findings of fact, Judge Hand began the legal analysis, which I will consider in due course.73

B. District Court Proceedings

1. The facts

A much richer picture of the case emerges when one fully examines Judge Hincks’74 findings of fact, which Judge Hand cited to only briefly in his opinion. “Early in the spring of 1940,” Meduna purchased “a small machine shop” whose previous owner apparently performed metalizing work on occasion, though Meduna himself had been “without experience in the more recent art of metalizing.”75 After another mechanic told Meduna of problems with the metalizing process as currently practiced,76 Meduna had a eureka moment: “he recalled the characteristic roughened surface of the deposited electrode-material produced by the McQuay-Norris transformer” and realized that “a roughened surface thus fused upon the base [of the metal part to be refurbished] might constitute a suitable bond for the sprayed metal.”77 Sure enough, sometime in March 1940, Meduna experimented


68 See supra note 66.
69 Metallizing, 62 F. Supp. at 55.
70 Metallizing, 153 F. 2d at 517.
71 Id.
72 Id. at 517-18.
73 See infra Part II.C.
74 Judge Carroll C. Hincks, a Yale Law School graduate and a U.S. Army Captain, was later elevated to the Court of Appeals for the Second Circuit by President Eisenhower, to a seat that became open when Judge Thomas Swan took senior status in 1953. There, he served alongside Judge Learned Hand until Hand’s death in 1961. Prior to his confirmation as a Court of Appeals judge, Judge Hincks had served as a Chief Judge of the United States District Court for the District of Connecticut for over five years, and as a district judge for a total of over 22 years. See Federal Judicial Center, Biography of Judge Carroll Clark Hincks, available at http://www.fjc.gov/servlet/nGetInfo?jid=1052&cid=999&ctype=na&instate=na (last visited Apr. 24, 2011).
75 Metallizing, 62 F. Supp. at 46.
76 Id.
77 Id.
with the McQuay-Norris machine and found that the grooves or projections it made on metal surfaces really did improve the ability of spray metal to bond to surfaces.

“Elated by the apparent results of his experiment,” Meduna then pondered what to do next. He “sought the advice of a friendly engineer who told him that the process would indeed be valuable if it served to produce a satisfactory bond but advised him to test it out thoroughly in actual service before attempting to patent it.” To a person uninitiated in the state of patenting today, the advice would seem sound: isn’t it a good idea, before rushing off an application to the patent office, to make sure that one’s invention works well for its intended purpose? Of course, in the eyes of Judge Hand, the friendly engineer’s advice ultimately doomed the validity of Meduna’s patent. The inventor began to “solicit[] metalizing jobs for hardened metal as well as soft,” and made a total of $1,100 thanks to his new process in the next few months. In a finding of fact that helped establish both secret use and the absence of experimental use, the district judge stated that “most of these jobs were done . . . for owners who were without knowledge as to the process to be used, and whose identity was never known to the inventor and whose identity he never sought to ascertain.” As he continued to offer the metalizing service with his newly discovered process, however, Meduna kept the possibility of patenting in mind. In fact, a representative of Kenyon Bearing & Auto Parts, a company that ultimately became the defendant in the litigation, offered Meduna “a contract whereby the inventor was to apply for a patent and give [Kenyon] an exclusive license thereunder.”

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78 Id.
79 Id.
80 Id.
81 The common-law experimental use “exception” can negate the finding of a public use or an on-sale bar, allowing the inventor to keep his or her patent rights. “If a use is judged experimental, then it is not a public use within the meaning of § 102(b). The experimental use doctrine also applies to inventions placed ‘on sale’ prior to the critical date . . . .” Schechter & Thomas, supra note 15, at 98. The leading Supreme Court case on the doctrine held that, to qualify for experimental use, the inventor must have made “a bona fide effort to bring the invention to perfection, or to ascertain whether it will answer the purpose intended.” City of Elizabeth v Am. Nicholson Pavement Co., 97 U.S. 126, 137 (1877) (cited in Schechter & Thomas, supra note 15, at 98). Under the modern doctrine, courts analyze the inventor’s actions through the prism of a multi-factor test to determine whether experimental use negation is warranted. See Allen Eng’g Corp. v. Bartell Indus., Inc. 299 F.3d 1336, 1353 (Fed. Cir. 2002) (discussing such factors as the “(1) the necessity for public testing, (2) the amount of control over the experiment retained by the inventor, (3) the nature of the invention, (4) the length of the test period, (5) whether payment was made, (6) whether there was a secrecy obligation, (7) whether records of the experiment were kept, (8) who conducted the experiment, . . . (9) the degree of commercial exploitation during testing[,] . . . (10) whether the invention reasonably requires evaluation under actual conditions of use, (11) whether testing was systematically performed, (12) whether the inventor continually monitored the invention during testing, and (13) the nature of contacts made with potential customers.” (citing EZ Dock v. Schafer Sys., Inc., 276 F.3d 1347, 1357 (Fed. Cir. 2002) (Linn, J., concurring)) (alterations in original)). As the District Court opinion suggests, Meduna failed to satisfy the requirements of the experimental use negation, primarily because, not knowing the identity of those who used the parts refurbished by the metalizing process, he did not have sufficient control over the “experiment” and did not receive feedback from the customers as a matter of course.
82 Metalizing, 62 F. Supp. at 46.
83 Id.
84 Id.
DID LEARNED HAND GET IT WRONG?  

DMITRY KARSHTEDT, PH.D

averse to patenting his process, but because he was not satisfied with the terms and because of unwillingness to deal with [the representative] personally, rather than his corporate principal."85 Instead, Meduna later entered into an agreement to sell the rights to his invention to Metallizing Engineering Company, the eventual plaintiff, culminating in a formal assignment of his rights in July of 1942.86 Earlier, representatives of Metallizing had “agreed to investigate the patentability of the process . . . and if [the company] should find the invention patentable to make application for the patent thereon and to prosecute the same diligently.”87 A patent application was filed on August 6, 1942, shortly after the assignment.88 The district judge had no doubt, and the Second Circuit did not dispute, that the inventor kept the process secret; it was a powerful process trade secret which, according to the judge, members of the public would never be able to deduce by reverse engineering:89

At all times prior to [the critical date of] August 6, 1941, the practice of the process was so guarded as not to come to public knowledge; its nature was disclosed only to a few employees and advisers of the inventor, less than half a dozen in number, in all cases under a promise of confidence which was not abused.

85 Id.
86 Id. at 46-47.
87 Id. at 47.
88 Id.
89 Id.

If the process could be deduced by reverse engineering, the defendants could have perhaps had a stronger “public use” invalidation argument articulated in the modern “non-informing public use” doctrine. See SCHECHTER & THOMAS, supra note 15, at 128-33. The doctrine holds that, when a non-patenting inventor sells a product embodying a trade secret capable of being reverse-engineered, he or she does not “abandon, suppress, or conceal” the invention within the meaning of 35 U.S.C. § 102(g)(2). This non-informing public use can thus invalidate someone else’s patent on the same invention. In the leading case, Dunlop Holdings Ltd. v. Ram Golf Corp., 524 F.2d 33 (7th Cir. 1975), the defendant, golfer Butch Wagner, made and sold golf balls made with a highly durable material called Surlyn, which was protected as a trade secret. Because the commercially available product actually contained the secret material, there was no abandonment, suppression, or concealment. The use was “public” and therefore distinguishable from product-of-secret-invention cases like Gillman v. Stern, 114 F.2d 28 (2d Cir. 1940), cert. denied, 311 U.S. 718 (1940), which held that there was no public use. See Dunlop Holdings, 524 F.2d at 35-36; see also supra note 25 and accompanying text. Although the first inventor was not trying to apply for a patent but tried instead to invalidate another’s patent, then-Judge Stevens, the author of the opinion, assumed that the first inventor had lost his own patent rights under these facts under a straightforward application of 35 U.S.C. § 102(b): “If Wagner had applied for a patent more than a year after commencing the public distribution of Surlyn covered golf balls, his application would have been barred notwithstanding the noninforming character of the public use or sale.” Dunlop Holdings, 524 F.2d at 36 (citing Egbert v. Lippmann, 104 U.S. 333 (1881)). Of course, Metallizing, like Gillman, involved a fully non-public use because the commercially available product did not in any way embody the secret invention, so that no reverse engineering of this kind of a trade secret was possible. With Butch Wagner’s Surlyn, however, then-Judge Stevens acknowledged that at least a possibility of reverse engineering exists, making the use “public”: “[E]ven though there may be no explicit disclosure of the inventive concept, when the article itself is freely accessible to the public at large, it is fair to presume that its secret will be uncovered by potential competitors long before the time when a patent would have expired if the inventor had made a timely application and disclosure . . . . [C]ompeting manufacturers of golf balls in search of a tough new material to be used as a cover, might make inquiries of Wagner’s Surlyn supplier that would soon reveal his secret ingredient.” Dunlop Holdings, 524 F.2d at 37, 37 n.13.
Although there was some conflict in the evidence on the point, I find that prior to August 6, 1941, the nature of the process could not have been deduced from inspection or physical tests upon specimens of the processed product in the hands of the public.\textsuperscript{90}

To support the conclusion of secret use, Judge Hincks noted wryly in passing that “the defendants’ manufacturer, who knew of the existence of the process even before its acquisition by the plaintiff and whose eagerness to use the process is fully apparent, offered no evidence to show that it had fathomed the process and begun its practice prior to its publication.”\textsuperscript{91}

All of these facts, missing from the appellate opinion, add up to paint a rather sympathetic picture of the inventor. He owned a small shop, discovered a new and valuable variant of the metalizing process, used it to support his own livelihood,\textsuperscript{92} carefully considered his options for assigning and patenting the invention, and ultimately sold his rights to a corporate buyer who promptly filed a patent application. Kenyon, the buyer whom Meduna had spurned, apparently began infringing the patent soon after it was granted;\textsuperscript{93} if Meduna’s patent were valid, Kenyon would no doubt be subject to enhanced damages for willful infringement under today’s law.\textsuperscript{94}

Of course, we have no way of knowing what happened between Meduna and the representatives from Kenyon and Metallizing with whom he negotiated the assignment. It’s no stretch to speculate, however, that one of Meduna’s big selling points was that his customers did not complain about the quality of the parts refurbished by his novel metalizing process, though most of them had no idea the process had recently been invented and used on their parts. Indeed, as mentioned above, Meduna did not follow up with most of the customers about the quality of his work, which precluded the finding of experimental use as a legal matter.\textsuperscript{95} However, according to the record developed by the district court, only one customer complained about the quality of Meduna’s work, and Meduna performed the job again for that customer “at his own expense.”\textsuperscript{96} The fact that the repair stations who sent the jobs Meduna’s way continued to do so for several

\textsuperscript{90}Metallizing, 62 F. Supp. at 46 (emphasis added).
\textsuperscript{91}Id. at 56.
\textsuperscript{92}See id. at 58; see also infra note 129 and accompanying text.
\textsuperscript{93}See Metallizing, 62 F. Supp. at 47 (“Since the date of Meduna’s original application, the process disclosed therein has had a wide commercial application. Both the plaintiff and the defendants’ manufacturer have developed electrical bonding machines adapted to facilitate the practice of the process which have been widely distributed through commercial channels. As a result, a great volume of worn machine parts of hardened metal which under the earlier art were junked as being not susceptible of metallizing it is now economically advantageous and mechanically possible to rebuild by metallizing.”) (emphasis added). Unlike Judge Hand, Judge Hincks spelled the word “metallizing” with two “ls.”
\textsuperscript{94}See 35 U.S.C. § 284 (2006); see also In re Seagate Tech., LLC, 497 F.3d 1360 (Fed. Cir. 2007) (en banc) (setting forth the legal standards for willful infringement).
\textsuperscript{95}See supra notes 81-82 and accompanying text. As discussed above, both the District Court and the Court of Appeals assumed that experimental use would have negated the bar and rescued the validity of the patent.
\textsuperscript{96}Metallizing, 62 F. Supp. at 46.
months after he switched to the new process suggests that there weren’t too many other complaints.\textsuperscript{97}

2. The District Court’s legal analysis

a. Prior public use

Judge Hincks’ analysis of whether the facts of the case warranted a finding of “public use” by Meduna was rather thorough and well-grounded in statute and precedent,\textsuperscript{98} though at times he conceded that the legal issue before him was confusing and unsettled.\textsuperscript{99} The distinction he attempted to capture\textsuperscript{100} appeared to be roughly analogous to the distinction that modern courts have drawn between “secret use” and “non-informing public use” in analyzing priority issues under 35 U.S.C. § 102(g), with the former type of activity constituting “concealment” that destroys a prior inventor’s rights under the statute and the latter allowing the inventor to maintain a claim of priority over later inventions in an interference proceeding,\textsuperscript{101} or at least to invalidate a later inventor’s patent.\textsuperscript{102}

In the context of the district court’s Metallizing opinion and outside the factual scenario of the priority contest, however, “concealment” appeared to be a good thing for the inventor, since the use of an invention in secret does not appear to give rise to a patent-defeating “public use” under the plain language of what is now 35 U.S.C. § 102(b).\textsuperscript{103} Judge Hincks started with the well-established proposition that “to put an invented article subsequently patented into the hands of the public . . . will constitute a public use of the invention even though the essence of the invention is not thereby disclosed to the public.”\textsuperscript{104} Thus, for a court to find that a patented device is in public use, the inventor need not teach the public how the invention works in explicit detail—all that is required is that the device be

\textsuperscript{97} Id. But see id. at 56 (suggesting that the absence of complaints from customers could be attributed to causes other than Meduna’s successful execution of his metalizing invention).

\textsuperscript{98} Id. at 57 (“If, as is well established (Gillman v. Stern, supra), an invented machine may be secretly operated and its product freely sold without involving a public use or sale of the invention inherent in the machine, I can see no reason whatever for withholding the same immunity from an invented process, provided it is proved that the inherent invention could not be learned from the product sold. Certainly there is nothing in the statute to require a distinction.”).

\textsuperscript{99} Id. at 56 (“[A] question relating to sales of the product of a process secretly practiced, is one of considerable difficulty.”).

\textsuperscript{100} Id. at 56-58.

\textsuperscript{101} See supra note 89. For a helpful analysis of “prior user” invalidation of patents under 35 U.S.C. § 102(g) and comparison with the public use bar under 102(b), see James R. Barney, The Prior User Defense: A Reprieve for Trade Secret Owners or a Disaster for the Patent Law?, 82 J. PAT. & TRADEMARK OFF. SOC’Y 261, 279-72 (2000). For another set of views on the doctrine, see Ami Patel, Note, Advocating a Totality of the Circumstances Test To Analyze a Noninforming Use of an Invention, 48 WAYNE L. REV. 1287 (2002). See also infra notes 188-193 and accompanying text.

\textsuperscript{102} See supra note 89.

\textsuperscript{103} Recall that, unlike the secret user in the Dunlop Holdings case discussed supra at note 89, who was a non-patenting infringement defendant trying to invalidate a later inventor’s patent, Metallizing was a patent-owning plaintiff trying to defend the validity of its own patent right.

\textsuperscript{104} Metallizing, 62 F. Supp. at 57 (citing Hall v. Macneale, 107 U.S. 90 (1883) and Egbert v. Lippmann, 104 U.S. 333 (1881)).
minimally accessible to the public. In contrast, two appellate decisions penned by Judge Hand led Hincks to state confidently that “the sale of the product of an invented machine subsequently patented does not constitute a public use [of the machine] if the machine in producing the product was secretly operated.”

The unsettled issue facing Judge Hincks was whether a secret process that generated a publicly used product was barred from patentability by the public use provision of the statute. Yet another Learned Hand decision, Grasselli v. National Aniline and Chemical Co., complicated matters and made Hincks pause before deciding that Gillman and Peerless were dispositive of the Metallizing case on the public use issue.

Addressing the validity of a patent on a process for the vulcanization of rubber, Hand had stated that “[o]nce the invention has been embodied in goods which are put in public use it becomes impossible for a later inventor to secure a patent.” This statement was dicta, however, since the vulcanization process did not appear to be kept secret and thus constituted true public use; more importantly, the vulcanization patent was invalidated on the independent ground of being anticipated by a prior patent. Another Second Circuit precedent examined by Hincks, in which a process patent was invalidated on the basis of public use—in yet another opinion written by Judge Hand!—also turned squarely on the fact that both the product and the process were not kept sufficiently secret by the patentee.

With the authorities now canvassed and distilled, Judge Hincks was ready to decide the issue of public use. While in some apparent tension with one another, upon close analysis the Second Circuit cases on public use of secret inventions could be summarized in the following rule: as long as “the plaintiff sustains the burden of proving that at the time the product is sold the process could not have been learned from the product,” there is no

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105 See NARD & WAGNER, supra note 15, at 89-80; see also supra note 89 and accompanying text.
106 Metallizing, 62 F. Supp. at 57 (citing Gillman v. Stern, 114 F.2d 28 (2d Cir. 1940) and Peerless Roll Leaf Co. v. Griffin & Sons, 29 F.2d 646 (2d Cir. 1928)).
107 26 F.2d 305 (2d Cir. 1928).
108 See supra note 106 and accompanying text; cf. supra notes 20-25 and accompanying text.
109 Metallizing, 62 F. Supp. at 56 (quoting Grasselli, 26 F.2d at 309).
110 Metallizing, 62 F. Supp. at 56. Moreover, the language quoted at text accompanying supra note 109 says nothing of the distinction between secret activities by the inventor himself and those of third parties—a distinction that became all-important on appeal.
111 Metallizing, 62 F. Supp. at 57 (“There a prior use of the invention had been proved which the plaintiff sought to avoid by proof that the use was not public but secret only, notwithstanding that the product of the process had been put upon the market. To accomplish this avoidance, the plaintiff had tried to prove that at the time (1926) when the product was marketated the invented process could not have been learned from its product. But as to this, the court concluded its opinion by saying: ‘The plaintiff argues that this was not true in 1926, but the record does not affirmatively bear this out; once more it has failed to carry the burden of proof.’” (citing Aerovox Corp. v. Polymet Corp., 67 F.2d 860, 863 (2d Cir. 1933))). In the appellate opinion, Judge Hand agreed with this characterization of Aerovox: “[T]he patent was also for a process, the use of which we held not to have been experimental, though not secret.” Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 519 (2d Cir. 1946), cert. denied, 328 U.S. 840 (1946). It is interesting to note, however, that Second Circuit placed the burden of proving secrecy on the patent owner when some type of commercial use of the invention was made. The plaintiff in Metallizing carried that burden, as the text accompanying infra note 115 suggests.
112 Metallizing, 62 F. Supp. at 57.
public use. The use of the passive voice is notable—in the final analysis, Hincks relied heavily on *Gillman v. Stern*, which held that a secret use of an invention by a third party was not a bar to a patent, and noted that the statute did not differentiate between first- and third-party uses. The burden of showing that Meduna’s process invention could not be gleaned from its products, which were the refurbished machine parts turned out by Meduna’s shop, “has been amply sustained by the plaintiff.” The patent withstood the public use challenge at the district court level.

b. Abandonment

Another pesky, and closely related, attack on the patent remained to be dealt with by the district judge; the defendant pled abandonment. Today’s version of the Patent Act mentions abandonment in two places: § 102(c) says that an “inventor shall be entitled to a patent . . . unless he has abandoned the invention,” and § 102(g) denies priority to those who “abandoned, suppressed, or concealed” an invention. At the time of the *Metallizing* decision, there existed only the equivalent of the modern § 102(c)—which, unlike § 102(b), explicitly calls out the inventor’s own activities by referring to the inventor as “he” rather than using the passive voice. More importantly, in contrast to the one-year bar of § 102(b), there is no specific time frame for § 102(c) abandonment—to warrant a finding of abandonment, the court must take into account the length of time the patenting of invention was delayed, the subjective intent of the inventor, and even personal circumstances in the inventor’s life that prevented him or her from applying for a patent on the invention. The doctrine around abandonment has generated some confusion since, in many cases invoking the defense of patent invalidity by abandonment, the inventor did not seek affirmatively to abandon patent rights but instead delayed filing for a patent by attempting to maintain the invention as a trade secret for as long as possible.

The leading case dealing with the defense of abandonment, *Macbeth-Evans Glass Co. v. General Electric Co.* is in part to blame for the confusion because it appeared to find abandonment precisely in such a scenario. A corporation kept a process secret for nine years, but after a close call where a former employee stole the secret and was prevented from revealing it only upon a successful misappropriation suit, it decided to apply for a patent on the secret invention. The *Macbeth* court invalidated the

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113 114 F.2d 28 (2d Cir. 1940), cert. denied, 311 U.S. 718 (1940).
114 See supra note 98 and accompanying text.
116 See supra notes 17-18 and accompanying text.
117 As summarized in the Manual of Patenting Examining Procedure § 2134 (8th ed. Rev. 7, July 2008): “Actual abandonment under 35 U.S.C. § 102(c) requires that the inventor intend to abandon the invention, and intent can be implied from the inventor’s conduct with respect to the invention. Such intent to abandon the invention will not be imputed, and every reasonable doubt should be resolved in favor of the inventor.” (Citing *In re Gibbs*, 437 F.2d 486 (C.C.P.A. 1971) and *Ex Parte Dunne*, 20 U.S.P.Q. 2d 1479 (B.P.A.I. 1991)).
118 See generally Paut T. Meiklejohn, Abandonment Under § 102(g) and Forfeiture, 20 IDEA 227 (1979); Note, “Prior Public Use” As Embracing “Prior Secret Use”, 46 Colum. L. Rev. 477 (1946).
119 246 F. 695 (6th Cir. 1917), cert. denied, 246 U.S. 659 (1918).
120 Id. at 697.
patent,121 but it was unclear whether the court really thought the inventor abandoned the invention within the meaning of the statute.122 Indeed, an abandonment argument against an inventor who continues to develop and exploit an invention at issue, all while jealously guarding it as trade secret, seems formalistic at best and disingenuous at worst. A better interpretation of Macbeth is that, as a matter of equity of public policy, the court thought that it was simply unfair for an inventor to attempt keeping an invention a trade secret in perpetuity, which Macbeth-Evans Glass apparently sought to do, and then run to the PTO when the secret became threatened or when other circumstances suggested that patent protection would be useful.123 Indeed, after a rather strained argument where the court suggested that the very election of trade secret protection over patent protection constituted abandonment under the Patent Act,124 the Macbeth court advanced what seemed to be alternative, non-statutory grounds for its decision based on language in the Supreme Court’s Pennock v. Dialogue case:

There is still another view to be taken of the course pursued by the present inventor and his assignee. Their conduct was inconsistent with the duty of diligence resting upon an inventor desiring to patent his invention. This duty was in effect defined by the Supreme Court as early as 1829 when, speaking through Mr. Justice Story, it was in substance declared that withholding disclosure of an invention for a long period of time and for purposes only of profit was opposed to the intent and policy of the constitutional provision and the statutes in relation to patents.125

While this language and the language of Pennock convinced Judge Hand ultimately to rule against the patentee, Judge Hincks decided that there was neither statutory abandonment nor non-statutory forfeiture—however

121 Id. and 707.
122 Id. at 697-707; see also “Prior Public Use” As Embracing “Prior Secret Use”, supra note 118, at 481-82, 482 n.20.
123 See generally “Prior Public Use” As Embracing “Prior Secret Use”, supra note 118. Further confusion was sowed by Woodbridge v. United States, 263 U.S. 50 (1923), a Supreme Court case that cited Macbeth with approval. This case, which affirmed the denial of a patent on an application that the inventor had intentionally kept pending in the Patent Office for several years, originated the modern doctrine of prosecution laches. This is an equitable doctrine that punishes highly strategic use of the Patent Office by those who keep patents pending so as to spring the patent on competitors in just the right time. See Schiechter & Thomas, supra note 15, at 270-73; infra note 288 and accompanying text; see also infra Part III.B.3. The “submarine patenting” continuation application practice is no longer viable because, since 1995, the patent term is calculated to be 20 years from the date of the application, rather than 17 years from the date of allowance. 35 U.S.C. § 154(a) (2010). As did the Macbeth court, Woodbridge sought to punish abusive behavior by patentees.
124 Macbeth, 246 F. at 698-702.
125 Id. at 702-03 (emphasis added) (referencing Pennock v. Dialogue, 27 U.S. (2 Pet.) 1 (1829)). Notably, unlike the Macbeth court, Judge Hand simply omitted the phrase “for a long period of years” in his quote from Pennock in the Metalizing opinion. See infra notes 359-361 and accompanying text. In so doing, Judge Hand misapprehended the equitable import of Pennock’s language and turned the fact-specific approach asking whether the inventor deserved to forfeit the patent into a strict one-year bar. See infra Part II.C; infra note 401 and accompanying text. Thus, the author agrees with the policy of forfeiture through delay announced in Pennock, but disagrees with Judge Hand’s implementation of this policy through the one-year bar.
one is to read *Macbeth*—under the facts of *Metallizing*. He held that “the secret practice of a process prior to application for a patent thereon, even for more than a year prior to the application,” does not have to be “conclusive evidence of an election to forego patent protection.” Meduna’s “delay in making application for a patent was not necessarily attributable to an intent to forego a patent” and was “at most of moderate dimension.” The district court’s abandonment-forfeiture analysis thus reflected a totality of circumstances approach and eschewed a one-year bright-line rule. Given that the statute does not specify a precise time period for an abandonment finding, and the equitable, policy-based forfeiture doctrine is inimical to bright-line rules almost by definition, Judge Hincks’ approach makes a great deal of sense:

> While developing his invention it was necessary for [Meduna] to continue to earn a living in the little two-man machine shop which he had recently acquired. Nothing in the law required him to give up all his other work and devote his whole time to the task [of preparing a patent application] . . . . And while on the whole it seems clear that the invention had been reduced to practice by some time before August, 1941, his secret practice of the invention for the time intervening was of slight weight in itself, and of wholly inadequate weight in the light of the entire situation, to support a finding of an intent to abandon.

Thus, Meduna’s behavior was clearly distinguishable from that of the plaintiff in *Macbeth*, who filed a patent application nearly ten years after beginning to exploit it commercially, and was spurred to do so by trade secret theft. Although the district court did not address that case, Meduna’s behavior was also distinguishable from that of the patentee in *Woodbridge v. United States*, who asked the patent office to store his application files in secret until he decided that time was ripe to spring the patent on his competitors. Since Meduna did not act in such a way as to abandon the invention, and did not do anything so inequitable as to deserve to forfeit the patent, the abandonment-forfeiture challenge failed. Kenyon’s other

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126 *Metallizing*, 62 F. Supp. at 57 (analyzing the issue primarily in terms of statutory abandonment).
127 *Id.* (citing Peerless Roll Leaf Co. v. Griffin & Sons, 29 F.2d 646, 649 (2d Cir. 1928)).
129 *Metallizing*, 62 F. Supp. at 58. Judge Hincks’ characterization of Meduna’s conduct resembles an inquiry into “reasonable diligence” of inventors who were first to conceive an invention but reduced it to practice after another inventor under as described by 35 U.S.C. § 102(g)(2), as well as an inquiry into “abandonment, suppression, or concealment” of an invention by the first inventor as provided by this statute and discussed at *supra* note 89. *See e.g.,* Griffith v. Kanamaru, 816 F.2d 624 (Fed. Cir. 1987) (discussing factors that point to presence or absence of reasonable diligence); Horwath v. Lee, 564 F.2d 948 (C.C.P.A 1977) (unexplained five-year delay between reduction to practice and application for a patent practice is prima facie evidence of suppression or concealment); Peeler v. Miller, 535 F.2d 647, 656 (C.C.P.A. 1976) (“[M]ere delay, without more, is not sufficient to establish suppression or concealment.”). Of course, there are no strict one-year bars under § 102(g)(2); the reasonable diligence inquiry is highly fact-specific.
130 263 U.S. 50 (1923).
131 *See supra* note 123.
defenses, which were not examined on appeal, were also unavailing and the patent was therefore adjudged not invalid. The defendant’s process infringed several of the valid claims of the patent-in-suit, and the plaintiff won its case at the district court level.134

C. Learned Hand

On appeal, the case was heard by the panel of Learned Hand, his cousin Augustus Noble Hand, and a former Yale Law School Dean Charles Edward Clark. Those were the golden years for the Second Circuit. In addition to the three judges on the Metallizing panel, other luminaries like Jerome Frank, a leading legal realist, and Thomas Swan, another Yale dean, served on this court during the period that Metallizing was decided.135 The judges of the Second Circuit of the time issued numerous highly influential decisions;136 some controversial rulings were left undisturbed by the Supreme Court137 perhaps precisely because of the respect accorded to its illustrious judges.138 Metallizing did not seem to have the makings of a case that would change the law, however. As discussed above, the Second Circuit’s “public use of secret inventions” cases—Peerless Roll Leaf Co. v. Griffin & Sons,139 decided in 1928, and Gillman v. Stern,140 decided in

egregious that reasonable people, considering the various policies behind the patent laws, could come to only one conclusion. This accords with the Supreme Court’s caution that forfeiture ‘is never favored.’ The most egregious abusers would be denied patents or validity; debatable behavior would be excused; and breathing room would be afforded to all. In short, the level of confidence of inventors and other private actors would be heightened, while a safeguard against abuse would be preserved.” (quoting Woodbridge v. United States, 263 U.S. 50, 62 (1923) (internal quotations omitted) (quoting Macbeth-Evans Glass Co. v. General Elec. Co., 246 F. 695, 706 (6th Cir. 1917), cert. denied, 246 U.S. 659 (1918))).

133 Metallizing, 62 F. Supp. at 54-55, 58.
134 Id. at 58.
136 Id. at 369-71.
137 See, e.g., Perlman v. Feldmann, 219 F.2d 173 (2d Cir. 1955), cert. denied, 349 U.S. 952 (1955) (holding that a controlling shareholder selling his stock must share the “control premium” with other shareholders); see Richard A. Booth, Symposium, Derivative Suits and Pro Rata Recovery, 61 Geo. Wash. L. Rev. 1274, 1275 (1994) (“The case prompted an avalanche of commentary addressing the question of whether control belongs to a controlling shareholder personally or is instead an asset of the corporation. . . . [T]he remedy was clearly an inappropriate one.”) (footnotes omitted); Anupam M. Chander, Essay, Minorities, Shareholder and Otherwise, 113 Yale L.J. 119, 131 (2003) (“Perlman v. Feldmann is a controversial case.”).
138 See Schick, supra note 135, at 336 (“Because the Second Circuit was so highly thought of by just about everyone who observed its operations and its members were known to try to interpret Supreme Court decisions properly, the High Court was more willing to go along with its views than with those of the other intermediate courts. . . . [I]n cases that represented intercircuit conflict involving the Second Circuit, the Supreme Court supported the Second Circuit substantially more often than it did the other circuits.”). Justice Harlan himself expressed unbridled admiration for Judge Hand: “May I say that when you read in Monday’s New York Times ‘Certiorari Denied’ to one of your cases, then despite the usual teachings, what the notation really means is ‘Judgment Affirmed.’” Proceedings of a Special Session of the United States Court of Appeals for the Second Circuit to Commemorate Fifty Years of Federal Judicial Services, by the Honorable Learned Hand, April 10, 1959, 264 F.2d at 23 (cited in Schick, supra note 135, at 331 n.2).
139 29 F.2d 646, 649 (2d Cir. 1928).
140 114 F.2d 28 (2d Cir. 1940), cert. denied, 311 U.S. 718 (1940).
1940—were on point and the abandonment-forfeiture attack on the patent appeared weak since the equities favored the inventor. Yet thanks to a remarkable sleight of Hand, if one may pardon the expression, the patent was invalidated. One has to sympathize with the plaintiff, who, in its reply brief to the respondent Kenyon’s certiorari opposition brief, complained that “there is no doubt that the decision of the District Court . . . ‘was altogether correct’ on the basis of the law as it stood in the Second Circuit until it was reversed by the decision in the instant case.”

The trick that got Judge Hand to the result he desired was a conflation of the bright-line one-year rule of the statutory bars and the equitable principles embodied in the abandonment statute and the common-law “patent forfeiture” cases such as *Woodbridge* and, arguably, *Macbeth*. As did *Metallizing*, these two decisions relied heavily on the language of the 1829 case of *Pennock v. Dialogue*. But in *Pennock*, Justice Story attempted to ground the holding of the opinion firmly in the patent invalidation provisions of the statute, engaging in careful interpretation of the phrase “known or used before the application” in the Patent Act then in force. After concluding that this phase must mean “known or used by the public,” Justice Story was careful to state that “the first inventor cannot acquire a good title to a patent; if he suffers the thing invented to go into public use, or to be publicly sold for use, before he makes application for a patent.” He thus rejected the plaintiff’s argument that the manufacture of an invention under the control of the inventors and its sale with their consent allowed them to maintain the right to patent the invention.

Judge Hand assumed that *Pennock*, like *Metallizing* itself, involved sales of a product of a secret process. But this is by no means clear from the *Pennock* opinion, and “the thing invented” language strongly points to the contrary conclusion. Moreover, at least one nineteenth century Supreme Court case read *Pennock* as an example of patent invalidation due to something like non-informing public use rather than commercialization of a truly secret invention: “Decided cases . . . show that a very limited public use or sale of the invention, if prior to the application . . . was held to be sufficient to defeat the right of the inventor to the protection of the Patent Act.”

To be sure, it is widely recognized that Congress apparently viewed Justice Story’s interpretation of the Patent Act of 1793 in *Pennock* to be so authoritative that it codified it by changing the language of the Patent Act

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141 Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., Petitioner’s Reply Brief, 1946 WL 50103, at *2 (quoting Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 517 (2d Cir. 1946)).
142 “[T]he court apparently invalidated the patent on two grounds: one was that the inventor had abandoned the right to a patent, or had forfeited it by his long delay.” *Metallizing*, 153 F.2d at 519.
144 Id. at 17-19.
145 Id. at 19. Later in his argument, Justice Story noted: “If such a public use is not a use within the meaning of the statute, what other use is?” Id. at 21.
146 Id. at 23 (emphasis added).
148 *Metallizing*, 153 F.2d at 518.
149 See supra notes 89, 104-105 and accompanying text.
151 See Taub, supra note 26, at 1498 (“The rule stated in *Pennock* is that an inventor may not obtain a patent ‘if he suffers the thing invented to go into public use, or to be publicly...
from “not known or used before the application” to “not known or used by others before his or their discovery or invention thereof, and not, at the time of his application for a patent, in public use or on sale.” Nevertheless, the above discussion, as well as the nature of the invention at issue in Pennock, makes it clear that Pennock does not support the interpretation of the phrase “public use” in the modern Patent Act as encompassing commercialized secret uses. Indeed, in drawing a distinction between Gillman and Metallizing, Judge Hand grudgingly admitted that the bar to patentability he created was non-statutory.

What we are left with, then, is the “equitable forfeiture” language of Pennock, which is strictly speaking dicta, but persuasive dicta nonetheless as it convinced the Woodbridge Court to invalidate a patent on the theory that modernly became known as “prosecution laches.” In Pennock, Justice Story condemned the patentee in sweeping language for keeping an invention secret “for a long period of years,” thus “hold[ing] back from the knowledge of the public the secrets of his invention” and filing for a patent only “when the danger of competition should force him to secure the exclusive right.” While it emphasized the role of the patent system in promoting disclosure, the dicta unmistakably focused on punishing strategic behavior by the inventor who engaged in willful delay of patenting. In the statement of the facts, it is noted that the pressure-resistant hose that ultimately led to the invalidation of the patent-in-suit was sold widely for seven years before the inventors obtained a patent; the inventors’ licensee sold “about thirteen thousand feet of hose, constructed according to the invention of the patentees” before Pennock and his partner decided to opt into the patent system.

sold for use’ before filing a patent application. Congress first codified the Pennock holding in the Patent Act of 1836, but in doing so it changed the wording of the rule slightly to ‘in public use or on sale.’” (citing Pennock, 27 U.S. at 23)).

Patent Act of 1836, Ch. 357, 5 Stat. 117, Sec. 6 (repealed 1870). The Act was further amended in 1839 to give the inventor a “grace period,” which was initially two years. Patent Act of 1839, Ch. 88, 5 Stat. 353-355, Sec. 7 (current version at 35 U.S.C. § 102(b) (2006)); see also supra note 24 and accompanying text.

See supra notes 148-150 and accompanying text.

See Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., Petitioner’s Reply Brief, 1946 WL 50103, at *2-3 (“Respondent says that the question presented here is an old question ‘decided according to the highest precedents’ (p. 4). It finds support for that assertion in Pennock v. Dialogue, 2 Peters 1, only by making the same mistake that the Second Circuit Court of Appeals made in supposing that the patent was ‘for a process of making hose’ when, in fact, the patent was for a hose structure so that the patented thing was the very thing publicly sold and used (our brief, pp. 25-6).”) (emphasis added).” (The only issue [in Gillman v. Stern] was whether a prior use which did not disclose the invention to the art was within the statute; and it is well settled that it is not.” Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 519 (2d Cir. 1946), cert. denied, 328 U.S. 840 (1946). The debate over the question of whether the Metallizing bar is statutory or non-statutory continues, however. See supra note 26 and accompanying text.

See supra notes 123-125 and accompanying text.

Pennock, 27 U.S. at 19.

Id. at 9.

Id. at 1 (emphasis in original).

Justice Clifford, who wrote the opinion in Bates v. Coe that in turn referenced Pennock, discussed at supra note 150, made the following statement in an opinion he wrote while riding circuit: “Such an inference [of intention to surrender the invention to the public] is never favored, nor will it in general be sufficient to prove such a defense, unless it appears that the use, exercise, or practice of the invention was somewhat
In contrast, as far as can be gleaned from the record developed by the District Court, Meduna did not seek to use the patent system in an abusive or strategic manner. He was trying to make a living as he negotiated to sell the rights to his invention, all while hoping to patent the invention as soon as it was practicable.\footnote{see supra notes 79-87 and accompanying text.} Ignoring the equitable spirit of the \textit{Pennock}, \textit{Macbeth}, and \textit{Woodbridge} decisions, which implicitly endorsed case-by-case analysis of the patentee’s actions, Judge Hand placed no weight on the relatively short time (about two and a half years) and relatively small earnings from sales, though not trivial for the 1940s (a little over $1,100)\footnote{See supra notes 84-85, 93-94 and accompanying text.} made from the date that the invention was “ready for patenting” until the date of the patent application.\footnote{See supra notes 84-85, 93-94 and accompanying text.} The interesting fact that Meduna first considered assigning his rights to Kenyon, which was to become the defendant in the infringement action, was also omitted from the appellate opinion;\footnote{Cf. Woodbridge v. United States, 263 U.S. 50, 62 (1923) (patent forfeited because applicant asked the PTO to keep his application secretly pending for several years); Pennock v. Dialogue, 27 U.S. (2 Pet.) 1 (1829) (loss of patent right by application of the novelty statute then in force to the patentee’s activities, with the Court criticizing the patentee in dicta for making commercial use of the invention for seven years); Macbeth-Evans Glass Co. v. General Elec. Co., 246 F. 695, 706 (6th Cir. 1917), \textit{cert. denied}, 246 U.S. 659 (1918) (patent forfeited because the patentee kept the process secret without intention to patent for nearly ten years, and was spurred to apply for a patent only when an employee misappropriated the secret).} if one were to take this fact into account, the equities would lie squarely on the side of Metallizing—perhaps, if Kenyon had given Meduna a better offer, the delay would not have been as long.\footnote{Metallizing, 153 F.2d at 520.} Instead, Judge Hand read in the forfeiture principles of \textit{Pennock}, \textit{Macbeth}, and \textit{Woodbridge}, which were aimed at preventing bad-faith “competitive exploitation of [inventor’s] machine of his process . . . regardless of how little the public may have learned about the invention,”\footnote{Metallizing, 153 F.2d at 520.} into a statute that specified precisely that an inventor loses his or her right to a patent one year after the
invention is placed in “public use or on sale,” whether by the inventor or by a third party.

Metallizing’s arguments for certiorari picked up on many of the inconsistencies in Judge Hand’s opinion, though the argument would have perhaps been stronger if the petitioner clearly distinguished the facts of Metallizing from those of the equitable forfeiture cases cited by Hand. Nevertheless, the argument in Metallizing’s reply brief, which focused on abandonment, is well-taken as it implies that the equitable rationales behind the abandonment statute conflict in spirit with the strict one-year bars of what is now § 102(b): “Congress . . . has seen fit to cover the matter of secret use under the abandonment statute which unlike the public use provision is not subject to any fixed and arbitrary time limit but is left at large to be determined on the facts of the particular case.” The petition also noted that Judge Hand’s apparent shoehorning of Meduna’s invention into the “public use” provision is completely unwarranted, quoting a leading treatise that explained that public use “is distinguished . . . from a secret use. It is a use which places the invention in such a relation to the public that if they choose to be acquainted with it, they can do so.” The statutory public use bar was simply inapplicable because the patented process of metalizing was not embodied in the refurbished machine parts and could not be gleaned from them by the public: “The intent of the public use provision of the law was to prevent an inventor from acquiring a monopoly of an invention ‘of which they [the public] were fairly in possession.’ Until the public acquires possession by disclosure the statute does not come into operation.” Finally, to drive home the point that the public use bar was inapposite, the reply brief referred to the already-discussed “distinction which the Court makes between secret use by an inventor and by a stranger.”

D. Metallizing: The Aftermath and Influence

1. Regional circuits

Subsequent decisions adopted Metallizing without much challenge or analysis, often invoking Judge Hand by name seemingly as if to say that if he so held, the case must be right. This is quite surprising. The last major amendment to the Patent Act, which was passed in 1952, introduced the

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170 Reply Brief at *4-5 (quoting Shaw v. Cooper, 32 U.S. (7 Pet.) 292, 298 (1833)). Again, however, public disclosure need only be minimal to invalidate a patent under what is now § 102(b). See supra notes 149-150 and accompanying text; see also Egbert v. Lippmann, 104 U.S. 333 (1881) (a man’s giving a corset to his girlfriend to wear was found sufficient to constitute public use).
171 Reply Brief at *4; see also supra note 155 and accompanying text; Ubel, supra note 13, at 422.
172 See also supra note 49 and accompanying text.
judge-made doctrine of obviousness as a distinct requirement of patentability, added § 102(g), and made some other significant substantive and procedural changes, but did not modify the statutory bars. Perhaps, this omission could be understood to mean that Congress intended for the Metallizing rule to stand, though of course nothing forced the sister circuits to follow that case. In any event, post-1952 opinions did not address what Congress’ failure to codify Metallizing meant for the rule, and perhaps more importantly, did not even attempt to reexamine the rationales for the case’s holding. For example, the Third Circuit, in a 1957 decision, said simply:

The issue is what is a public use or sale within the purview of the statute. This question was cogently discussed by Judge Learned Hand in the Metallizing Engineering Co. case, supra. We can add little of value to what Judge Hand said in the cited decision. We are in accord with what he stated.\(^\text{174}\)

The three-page U.S. Chemical opinion, however, did add something to Judge Hand’s contribution. While Hand seemed to argue that the “public use” prong of the statutory bars figured prominently in his decision to invalidate Meduna’s patent, Chief Judge Biggs of the Third Circuit read the Metallizing case as applying to “prior use or sale,” thereby potentially expanding the reach of the doctrine. Also, the U.S. Chemical case stated flatly that commercial exploitation of a secret invention falls within “the purview of the statute,” though the Metallizing case could more plausibly be read as creating a non-statutory bar to a patent right that simply borrows the one-year term from § 102(b).\(^\text{178}\)

Be that as it may, several other circuits also cited Metallizing with approval and appeared, for the most part, to view the case as an interpretation or a creative application of the statutory bars. The Ninth Circuit, for example, opined that the Metallizing rule effectuated “the purpose of 102(b)”\(^\text{180}\) and stated the prevailing law as follows: “Where a process patent is involved and there is a sale of a product of the process, such is a public use of the process if the product sold discloses the process, or even if it does not.”\(^\text{181}\) The court then invalidated the method patent at

\(^{174}\) U.S. Chemical Corp. v. Plastic Glass Corp. 243 F.2d 892, 894 (3d Cir. 1957), cert. denied, 335 U.S. 836 (1957).
\(^{175}\) Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 517 (2d Cir. 1946), cert. denied, 328 U.S. 840 (1946).
\(^{176}\) U.S. Chemical, 243 F.2d at 894.
\(^{177}\) Id.
\(^{178}\) See supra notes 26, 154, 171 and accompanying text.
\(^{179}\) See 2 CHISUM ON PATENTS, supra note 15, § 6.02[5]b, at 6-62 n.60 (collecting cases).
\(^{180}\) Tool Research & Eng’g Corp. v Honcor Corp., 367 F.2d 449, 454 (9th Cir. 1967), cert. denied, 387 U.S. 919 (1967), reh’g denied, 389 U.S. 893 (1967).
\(^{181}\) Id. at 454. A later 9th Circuit opinion explained the confusion surrounding on-sale and public use applications of Metallizing as follows: “The district judge’s jury instruction combined the ‘on sale’ and ‘in public use’ defenses because the [potentially invalidating] transaction raised a possibility that the patent was invalid under either. Although it is clear that the ‘on sale’ and ‘in public use’ defenses are separate, many courts have evaluated them together. This is entirely appropriate in cases in which the product of the process is sold. In such cases the sale of a product before the critical date will invalidate the process patent under the ‘in public use’ defense.” Handgards, Inc. v. Ethicon, Inc., 743 F.2d 1282, 1291 (9th Cir. 1984) (citing Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 517 (2d Cir. 1946)) (some citations omitted).
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issue under § 102(b). The Supreme Court continued to stay out of the fray, refusing to grant certioriari in the U.S. Chemical and Tool Research cases.

2. The Federal Circuit

a. Auld and Gore

The Federal Circuit had an opportunity to review the Metallizing doctrine in the second year of its existence. Though it was not binding authority upon the court, the Federal Circuit panel treated Metallizing as settled law in applying it to a product-of-secret-process case before it, affirming a summary judgment order that invalidated a patent on a molding process for making decorative emblems:

If Auld produced an emblem by the method of the invention and offered that emblem for sale before the critical date, the right to a patent on the method must be declared forfeited. The “forfeiture” theory expressed in Metallizing parallels the statutory scheme of 35 U.S.C. § 102(b), the intent of which is to preclude attempts by the inventor or his assignee to profit from commercial use of an invention for more than a year before an application for patent is filed. The magistrate correctly applied the concept explicated in Metallizing, i.e. that a party’s placing of the product of a method invention on sale more than a year before that party’s application filing date must act as a forfeiture of any right to the grant of a valid patent on the method to that party if circumvention of the policy animating § 102(b) is to be avoided in respect of patents on method inventions.

The Federal Circuit thus apparently acknowledged that invalidation of a patent on a secret invention that was commercially exploited by the inventor before the critical date was not dictated by the statute itself, but by the rationale of preventing a patentee from “[circumventing] the policy animating” the statute. This phrase does not make it clear if the court was relying on congressional intent, general public policy, both of those considerations, or perhaps some other authority like Pennock v. Dialogue, which preceded the modern version of § 102(b). The Federal Circuit’s language did hark back to the equitable and policy-focused origins of Metallizing, but the Auld court did not question whether the importation of

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182 Tool Research, 367 F.2d at 1292.
183 See 2 CHISUM ON PATENTS, supra note 15, § 6.02[5][b], at 6-60 (“The Supreme Court has never passed on the precise question [addressed in Metallizing] although in a number of cases it indicated by way of dicta that use under ‘injunction of secrecy’ might not constitute public use.”) (citing Elec. Storage Battery Co. v. Shimadzu, 307 U.S. 5, 19-20 (1939) and Egbert v. Lippmann, 104 U.S. 33 (1881)).
186 Auld, 714 F.2d at 1147.
the strict statutory one-year bar into the non-statutory patent forfeiture doctrine is reasonable.

Further underscoring the non-statutory nature of the Metallizing rule, some three months later the Federal Circuit decided the famous case of W.L. Gore & Associates, Inc. v. Garlock, Inc. Gore reaffirmed the principle of Gillman v. Stern and is often cited for the proposition that U.S. patent law does not recognize prior user rights. The opinion, which held that third-party sale of Teflon made by a secret stretching process did not invalidate the patent on essentially the same process, explicitly commented on the holding of Metallizing that had been recently adopted by Auld: “If [inventors themselves] commercialized the tape, that could result in a forfeiture of a patent granted them for their process on an application filed by them more than a year later.” As to the factual scenario at issue, the court held that “[t]here is no reason or statutory basis, however, on which . . . secret commercialization of a process [by others], if established, could be held a bar to the grant of a patent to [the inventor] on that process.” One may infer from this phrase that the court’s belief in the correctness of the forfeiture doctrine is grounded in “reason,” since it cannot be grounded in the statute. Legal reasoning, of course, drives the development of common law, but a statute that is directly on point would appear to constrain the ability of judges to rely on reason alone. To be sure, the Metallizing-Auld-Gore line of cases pays homage to the statute by borrowing its one-year bar in the first-party cases, but significantly rewrites its language by according different treatment to activities of inventors and third parties. Policy reasons aside, the absence of clear authority for this rule alone suggests that it may be in need for reexamination.

b. Kinzenbaw

Federal Circuit cases following Auld and Gore did little to clarify the rationales for the Metallizing doctrine, but subsequent opinions did provide some examples of factual scenarios where the Metallizing bar would or would not apply. Kinzenbaw v. Deere & Co. decided by a five-judge panel a few months after Gore, is notable because the patent owner did not,  

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189 114 F.2d 28 (2d Cir. 1940), cert. denied, 311 U.S. 718 (1940).
191 721 F.2d at 1550.
192 Id.
193 See Siegel, supra note 31, at 364-65 n.131 (attempting to justify this distinction as a form of “policy polymorphism”).
194 This issue was noted by a leading commentator: “Unfortunately, the court in Gore gave sparse treatment to the point [of treating first and third parties differently], citing only Metallizing, dictum in its prior D.L. Auld opinion, and general policy considerations favoring inventors who make an early public disclosure. Both D.L. Auld and Gore leave unclear the theory for finding a bar when the secret commercial use of a process or machine is by the inventor/patentee but not when it is by another.” 2 CHISUM ON PATENTS, supra note 15, § 6.02[5][c], at 6-71.
195 See Thompson, Bass & Kimney, supra note 36, at *11.
196 741 F.2d 383 (Fed. Cir. 1984).
strictly speaking, sell any products of a secret invention. This odd case also confirmed that Metallizing could apply to all sorts of secret inventions that are commercially exploited, since the patent-in-suit was directed to a machine rather than to a process. The offending activity at issue was as follows: Deere & Company “made . . . available” (not sold!) planting machines to a number of farmers, which Deere argued the farmers used at its behest to test for their “warrantability, durability, and acceptability.”

Strangely, in oral argument, the plaintiff “disavowed any claim that such use was experimental” and relied solely on secrecy to defend its patent against charges of public use. The court held that it did not need to consider whether or not Deere lent planters to the farmers with an expectation of confidentiality, since the use, even if secret, invalidated the patent under Metallizing. The court reasoned that the farmers were “agents” of the inventor, and that “[i]n using the machines to test them for Deere, the farmers served Deere’s commercial purposes.”

The Federal Circuit never made it clear precisely what the nature of the commercial use was. Since Deere did not sell or offer to sell the planting machines to the farmers, but merely lent them, the court could not rely on the on-sale bar of § 102(b). But if there was no sale of any sort, how could Metallizing—a case where sales activities appeared important to invalidating the patent—apply here? To be sure, the farmers likely derived a commercial benefit from growing and selling the agricultural products made possible with the help of Deere’s planters, which the farmers used to plant a total 40,000 acres in the course of two planting seasons. But if the farmers were really “agents,” they owed the profits derived from such agricultural output to Deere under the laws of agency, with Deere being the ultimate beneficiary of the sales as the principal. This scenario, where the eventual patentee collects a profit from a secret invention through its agents, falls in a straightforward manner under the rule of Metallizing. But this was obviously not what actually occurred in Kinzenbaw. The farmers were not agents of Deere & Co. under any conceivable legal definition of an agent. More plausibly, Deere leased the planters to the farmers for free as a form of advertising, hoping that they would enjoy using the product and buy it later. While such activity may be “commercial” in a broad sense of the word, it is a long way from a sale of a product of a secret invention, which was the activity at issue in Metallizing. A creative lawyer could have perhaps argued that Deere’s activity fell directly under the on-sale bar after all, with the “sale” involving free use of planters in consideration for Deere’s building goodwill with the farming community (which would in turn help Deere make actual sales at a later time). This argument avoids Metallizing

197 See infra notes 204-206 and accompanying text.
198 Kinzenbaw, 741 F.2d at 385.
199 Id. at 390.
200 Id. at 390-91.
201 Id. at 390. In the court’s words, Deere applied for a patent on the planters on “July 30, 1975, three years after Deere began using the invention” by lending planters to farmers. Id.
202 Id. at 391.
203 Id. at 390.
204 Id. at 390.
205 See, e.g., RESTATEMENT (SECOND) OF AGENCY § 403 ("If an agent receives anything as a result of his violation of a duty of loyalty to the principal, he is subject to a liability to deliver it, its value, or its proceeds, to the principal.").
altogether and place the activity at issue squarely under the purview of the statutory on-sale bar, but this is not how the Kinzenbaw court approached the issue.

Instead, the court cited with apparent approval the jury instructions that said that “if you find that . . . [the planters were used] primarily for commercializing the apparatus or process or toward gaining a competitive advantage or realizing a commercial gain, then such work . . . makes invalid any patent issuing on such applications”207 if conducted before the critical date.208 The court summarized the settled law with the phrase “a commercial use is a public use even if it is kept secret,”209 citing Metallizing, Auld, Chisum on Patents, and invoking Judge Hand by name. Under its expansive reading of Metallizing210 (again, activities at issue were not sales but “uses” apparently directed toward fostering goodwill among “customers”211), the court invalidated the patent.212 In a final twist of irony, the court wrote definitively that “102(b) barred the issuance of the patent,”213 apparently rejecting Auld’s non-statutory forfeiture theory of Metallizing.214 For those keeping score at home, the use of the planters was not “public” but secret, as the court stipulated.215 There was no “sale” or even an “offer for sale” in the conventional sense of those terms.216 And yet § 102(b) was held to be applicable.

E. Limits of the Metallizing Doctrine

Kinzenbaw’s gloss on Metallizing suggests a very expansive sweep of the Metallizing rule. The raison d’être of business entities is “to gain a competitive advantage” and “realize a commercial gain.”217 Therefore, any pre-critical date activities in the ordinary course of business that somehow

207 Kinzenbaw, 741 F.2d at 390 (emphasis added).
208 To be sure, the “competitive exploitation” language in Metallizing supports such a broad reading of the case. See Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 517 (2d Cir. 1946), cert. denied, 328 U.S. 840 (1946). Nevertheless, the facts of Metallizing involved sales rather than building commercial goodwill in a general sense.
209 Kinzenbaw, 741 F.2d at 390.
210 To this end, Professor Chisum noted that the “appropriate approach” for what “constitutes ‘commercial exploitation’ within the meaning of Metallizing . . . would seem to be to ask whether the product of the secret process or machine was in public use or on sale as those terms are used in Section 102(b).”2 CHISUM ON PATENTS, supra note 15, § 6.02[5]b, at 6-62 n.60 (citing Wells & Riggins, supra note 26). The Kinzenbaw court did not follow this approach, however. As mentioned above, the agricultural products (presumably, grain) made with the aid of the secret planter were clearly on sale and in public use, but the benefit of the sales did not inure to Deere, the inventor, which prevented a straightforward application of Metallizing in the manner suggested by Professor Chisum. Instead, the court thought that Metallizing applied because, “[i]n using the machines to test them for Deere, the farmers served Deere’s commercial purposes.” The “commercial purpose” test is unhinged from the doctrines surrounding the public use and on-sale provisions.
211 Kinzenbaw, 741 F.2d at 390.
212 Id.
213 Id. at 391.
214 See supra notes 185-187 and accompanying text.
215 More precisely, the Kinzenbaw court said that it did not matter whether the use was public or secret, because, even if secret, the patent was forfeited under Metallizing. Kinzenbaw, 741 F.2d at 390.
216 See supra notes 206-207 and accompanying text.
217 Kinzenbaw, 741 F.2d at 390.
implicate a secret invention that later becomes the subject of a patent application could invalidate the patent. In two important subsequent decisions, however, the Federal Circuit significantly limited Kinzenbaw. In re Kollar dealt generally with the question of whether a license agreement that transfers the ownership of know-how that is subsequently patented triggers the on-sale bar, and held that it does not. The court reasoned that “such a transaction is not a ‘sale’ of the invention within the meaning of § 102(b) because the process has not been carried out or performed as a result of the transaction.” The court stressed, however, that its holding applied to the unique context of licensing and took pains to note that it was not overruling the principle of Metallizing as explained in Auld: “Surely a sale by the patentee or a licensee of the patent of a product made by the claimed process would constitute such a [patent-barring] sale because that party is commercializing the patented process in the same sense as would occur when the sale of a tangible patented item takes place.” Presumably, though its precise holding interpreted the on-sale bar of § 102(b), Kollar means that a license to a product of a secret process within the meaning of Metallizing likewise does not invalidate the patent. Kollar did not specifically mention the messy Kinzenbaw case, whose broad reading of Metallizing is in significant tension with Kollar given the latter case’s focus on sales instead of “competitive exploitation.” Three years after Kollar, in Invitrogen Corp. v. Biocrest Manufacturing, L.P., Judge Rader attempted to clean up the mess.

The Invitrogen opinion engaged Kinzenbaw’s reading of Metallizing directly and explicitly limited the Kinzenbaw case, though in a backhanded sort of way. The patent-in-suit in Invitrogen involved a process for producing E. coli cells with improved ability to replicate exogenous DNA. The district court held the patent invalid under § 102(b) because “Invitrogen had used the claimed process in its own laboratories [before the critical date] to further other projects beyond development of the claimed process and to acquire a commercial advantage.” In other words, Invitrogen employed the improved cells “in other projects within the company,” which generated “commercial benefits” for “Invitrogen’s general business of widespread research.” On appeal, Invitrogen contended that “it kept its use of the claimed process confidential” and that “this secret internal use was not ‘public use’ . . . because it neither sold nor offered for sale the claimed process or any product derived from the process.” The Federal Circuit agreed with the plaintiff and held that the patent was not invalid.

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218 286 F.3d 1326 (Fed. Cir. 2002). For a cogent criticism of Kollar and similar cases as inconsistent with Metallizing’s policy against commercial exploitation, see Roderick M. Thompson, The Licensing Exception to the On-Sale Bar: A Wrong Turn on the Path to Predictability, 45 IDEA 35 (2004).

219 Kollar, 286 F.3d at 1332.

220 Id. at 1333 (citing D.L. Auld Co. v. Chroma Graphics Corp., 714 F.2d 1144, 1147-48 (Fed. Cir. 1983) and W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1550 (Fed. Cir. 1983)).

221 See Thompson, supra note 218, at 36

222 Id.

223 424 F.3d 1374 (Fed. Cir. 2005).

224 Id. at 1377-78.

225 Id. at 1380 (internal quotations omitted).

226 Id.

227 Id. (internal quotations omitted).

228 Id.
court approvingly cited *Metallizing* for the proposition what “there are instances in which a secret or confidential use of an invention will . . . give rise to the public use bar,”229 but distinguished the case at issue because Invitrogen used the cells only “internally to develop future products that were never sold.”230

In a footnote, the court dealt with *Kinzenbaw*’s broad “commercial gain” language.231 Though *Kinzenbaw* said that whether the farmers’ activities were public or secret did not matter, and proceeded on the assumption that the use was secret,232 the *Invitrogen* court re-characterized the case by stating that “the jury had good reason to find Deere’s widespread commercial exploitation of the invention ‘public.’”233 After citing the facts suggesting that the use of the planters had to become public at some point (since it would be tough to plant 40,000 acres in secret),234 the *Invitrogen* court opined, “[n]o wonder this court sustained a finding that Deere’s widespread activities were ‘primarily for commercializing the apparatus’ and therefore public.”235 This revision of *Kinzenbaw* suggests that Deere lost the case because its invention was actually in public use; there was no need to rely on the legal fiction that the use became “public” through Deere’s lending of planting machines to its potential customers. Of course, that was not the reasoning of *Kinzenbaw* itself.

To be sure, *Invitrogen* did not overrule *Kinzenbaw*, though the latter case’s “commercial gain” language appears now to be limited to some type of a concrete monetary gain derived from a secret invention. After *Invitrogen*, creation of goodwill, business intelligence, or internal research advancements owing to secret inventions should not work patent forfeiture under the general rule of *Metallizing*. A recent district court decision made it clear that the fact that the patentee “did not use its claimed process to make money since it never sold any later product developed using the process”236 explained the result in *Invitrogen*. The court relied partly on *Kinzenbaw*, however, to rule that a triable issue of invalidity existed where the defendant produced facts tending to show that the patentee “used his inventive software for personal commercial gain prior to the critical date.”237

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229 Id. at 1382 (citing Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 250 (2d Cir. 1946)).
230 *Invitrogen*, 424 F.3d at 1383.
231 Id. at 1381 n.*.
232 See supra notes 209-215 and accompanying text.
233 *Invitrogen*, 424 F.3d at 1381 n.*.
234 See supra note 205 and accompanying text.
235 See 424 F.3d at 1381-82 n.* (citing Kinzenbaw v. Deere & Co., 741 F.2d 383, 389-90 (Fed. Cir. 1983)). Capturing the confusion surrounding this area of law, another case Judge Rader cited to in *Invitrogen*, *TP Labs. Inc. v. Professional Positioners, Inc.*, which addressed the *Metallizing* principle in dicta, lamented with admirable honesty that “[d]ecisions under [the on-sale bar] provision and comparable provisions in earlier statutes are marked by confusion and inconsistency.” 724 F.2d 965, 968 (Fed. Cir. 1984).
236 Trading Techs. Intern., Inc. v. eSpeed, Inc. 507 F. Supp. 2d 883, 893 (N.D. Ill. 2007) (case involving a software invention for improving stock market analysis).
237 Id. The court then made the following cryptic statement, conflating the competing principles of *Kinzenbaw* and *Invitrogen*: “If defendants succeed in proving that [plaintiff] *used his invention to trade for profit—to garner a competitive advantage in the marketplace*—such is a barring public use different from the use discussed in *Invitrogen*. Further, because [plaintiff’s] invention need not have been disclosed to the public in order to be commercially exploited, [plaintiff’s] exclusively private use of the invention would not abrogate the public use bar.” Id. In the spirit of *Metallizing*, defendants had thus successfully argued that *Invitrogen* is not controlling: “[A] rule requiring that an
software at issue was used to analyze the stock market; the court opined that if the patentee “did in fact use the software to trade and make money, such action, in our determination, falls within the ambit of public use under § 102(b).”\textsuperscript{238} The Trading Techs. scenario is unusual because no sale of a product of a secret invention is involved, as the invention makes money for the trader quite literally by helping him or her become more successful in the market; \textsuperscript{239} one wonders if the court would have felt the same way if the inventor was actually losing money on the stock market with the software.\textsuperscript{240} The courts have yet to address this tantalizing issue directly, though the Trading Techs. court suggested in dicta that evidence of the inventor’s monetary loss was probative of patent-defeating commercial exploitation.\textsuperscript{241} It is thus clear that, even in the wake of Invitrogen, the Metallizing rule lives on.\textsuperscript{242}

III. METALLIZING’S FLAWED POLICY RATIONALES

A. Disclosure

1. Practical and theoretical problems with the disclosure rationale

   The foregoing discussion indicates that, as a matter of common law and statutory interpretation, Judge Hand’s analysis in Metallizing was shaky at best. As noted bluntly by one commentator on Metallizing and similar cases, “[s]ome of these uses are deemed ‘public’ primarily to penalize the inventive method be placed ‘on sale’ would render the ‘public use’ prong of § 102(b) meaningless, and would permit inventive methods to be used for commercial gain in secret for years and still be eligible for patent protection whenever the inventor decided it was time to share it with the public, an outcome antithetical to the public policy of offering a limited term of exclusivity in exchange for prompt disclosure.” \textit{Id.} (internal quotations omitted).

\textsuperscript{238} \textit{Id.}

\textsuperscript{239} The inventor hurt his case when he testified that, “the minute I started trading with MD Trader, the trajectory of my trading went up and never came close to tracing back to that original point . . . .” \textit{Id.} at 897 (internal quotations omitted).

\textsuperscript{240} A plausible case can be made that such use is “competitive exploitation” since it is made with the intention of achieving commercial gain. The Invitrogen-Kinzenbaw issue became moot when the jury ultimately determined that the commercial use at issue did not occur more than one year before the critical date. The District Court did note in dicta that, even though the inventor experienced monetary losses with his market-analysis invention, the use was still commercial. \textit{See} Trading Techs. Intern., Inc. v. eSpeed, Inc. 581 F. Supp. 2d 915, 916-17 (N.D. Ill. 2008), aff’d, 595 F.3d 1340 (Fed. Cir. 2010) (“[Inventor’s] receipts for the day, also presented at the hearing, showed that a large amount of trading actually occurred that day, resulting in a loss. We agree with [defendant’s] expert . . . that it is not common practice to engage in a substantial amount of trading, ultimately resulting in a large loss when testing software in a live environment. Therefore, we find [the defendant] has proved by clear and convincing evidence that Brumfield engaged in commercial use of the invention . . . .”).

\textsuperscript{241} \textit{See supra} note 240.

\textsuperscript{242} \textit{See} Bradley C. Wright, \textit{Recent Developments in Patent Law.}, 5 J. MARSHALL REV. INTELL. PROP. L. 630, 633 (2006). (“In Invitrogen, the Federal Circuit distinguished the circumstances in Metallizing Engineering . . . . The court held that the correct test is the traditional public use test, which asks whether the use was either accessible to the public or if there was a commercially exploited use. There was no evidence in this case that the patent owner received any compensation for its internal, secret use. Merely using the invention to develop future products was held not to be commercial exploitation. Here, the court really put a crimp in the secret public use doctrine.”) (footnotes omitted).
inventor for her own delay in seeking a patent. . . . Clearly the ‘public’ nature of the use in these cases is a fiction which is used to serve independent policy objectives of the court.”

Since, for Judge Hand, policy objectives were apparently strong enough to override the statute by importing first-party secret inventions into the statutory bars of § 102(b), they are worth examining in detail.

As mentioned above, one of Judge Hand’s rationales for the rule was to encourage prompt disclosure of inventions to the public via early filing of patent applications. He held that “it is part of the consideration for a patent that the public shall as soon as possible begin to enjoy the disclosure.” As this language reveals, the disclosure rationale for the patent system can be framed as part of the “quid pro quo” of the patent system: the patentee receives a monopoly right to exclude others from practicing his or her invention in exchange for revealing technical information to the public. The patentee’s disclosures, the reasoning goes, will stimulate future research building on the patentee’s invention; moreover, after the expiration of the patent, the invention will enter the public domain, free for everyone to use.

The Supreme Court has highlighted disclosure as an important reason for the existence of the patent system, and several patent theorists have commented positively on the role of the patent system in promoting technological progress by disseminating information. In addition, an important of function of a patent is to disclose the existence of a claim of ownership of an invention to the public, particularly to the patentee’s competitors who might wish to design around the patent.

In the last several years, however, commentators have begun to question whether patent disclosures actually provide significant

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243 Ubel, supra note 13, at 422-23.
244 See supra note 14 and accompanying text.
245 Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 520 (2d Cir. 1946), cert. denied, 328 U.S. 840 (1946).
247 See Jeanne C. Fromer, Patent Disclosure, 94 IOWA L. REV. 539, 553 (2009) (“The accepted understanding in patent policy and doctrine is that disclosure of a patented invention to the public—and its dedication to the public after the expiration of the patent term—is part of a quid pro quo the patentee must provide to gain the broad patent right.”); Elizabeth Pesses, Note, Patent and Contribution: Bringing the Quid Pro Quo into eBay v. MercExchange, 11 YALE J.L. & TECH. 309, 320-323 (2009), and references therein.
248 See supra note 14 and accompanying text.
249 See, e.g., Fromer, supra note 247, at 599 (criticizing problems with patent disclosure but arguing for “the deserved centrality of the disclosure function in the patent system to promote the flow of information about inventions from patentees to potential future innovators, thereby stimulating increased and speedier follow up innovation”); Robert P. Merges, Commercial Success and Patent Standards: Economic Perspectives on Innovation, 76 CALIF. L. REV. 805, 808 n.9, 809 (1988) (“There is a significant amount of evidence showing that inventors in many fields rely on published patents for technical information . . . [T]he patent statute and case law—not to mention commercial practices—repeatedly demonstrate [the disclosure function’s] vitality in the patent system.”) (citing several papers)). See generally Ouellette, supra note 67.
informational benefits to the public, both in terms of teaching those skilled in the art to practice the invention and in terms of providing notice of a claim of ownership over the invention. Mark Lemley argued that “the Federal Circuit has permitted a number of vague general disclosures that don’t in fact communicate very much to anyone, and patent lawyers often have incentives to write those vague disclosures.” In an earlier paper, he had noted that, especially in the information technology industry, companies appear to ignore patents completely, even when significant investment decisions are made and goals of corporate research and development are formulated.

The reasons for ignoring patents are complex: in addition to the problem of relatively unhelpful disclosures, which plague the high-tech industry in particular, inventors who read patents might worry that they would be charged with willful infringement for practicing the invention with knowledge that it is covered by another’s patent, leading to possible trebling of monetary damages. The notice-of-ownership function of patent disclosure has fared no better, as the academic literature makes clear. Even when inventors are willing to risk willfulness and decide to read a patent, they might have great trouble figuring out whether the claims cover their products, as meaning and scope of patent claims can often be difficult to determine until an infringement suit has been filed and the case has


252 See, e.g., Fromer, supra note 247; Sean B. Seymore, The Teaching Function of Patents, 85 Notre Dame L. Rev. 621 (2010).


255 Lemley, supra note 251, at 21-22.

256 Id.

257 See id. at 21 (“Companies and lawyers tell engineers not to read patents in starting their research, lest their knowledge of the patent disadvantage the company by making it a willful infringer.”).


260 See Burk & Lemley, supra note 253, at 1744 (“Despite repeated efforts to set out the rules for construing patent claims . . ., parties and courts seem unable to agree on what particular patent claims mean. Patent law has provided none of the certainty associated with the definition of boundaries in real property law. Literally every case involves a fight over the meaning of multiple terms, and not just the complex technical ones.”) (citation omitted).
reached the claim construction stage. Yet another problem with the disclosure rationale is that relevant patents can sometimes be very difficult to find with currently available search techniques, so that even those who seek to read patent literature might never come across patents that would be useful to them.

Moreover, researchers appear to consider patents generally unhelpful as sources of technical information, turning instead to the more familiar peer-reviewed publications, or perhaps even to “product manuals or products embodying the patents” when they are available. To remedy the problem of patent disclosures that lack useful examples, are riddled with jargon, and are generally inaccessible to scientists, Sean Seymore proposed reforming the enablement requirement of the Patent Act so that disclosures associated with patents would more useful to the scientific community. But even if those reforms are adopted—certainly not a guarantee since implementing the proposals will likely require legislative action—the problems of willfulness and difficulties of finding the right patents will remain. In addition, as Tun-Jen Chiang argued in a sweeping attack on the disclosure rationale for the patent system, the very notion of

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263 Lemley, supra note 251, at 22 (“Empirical research suggests that scientists don’t in fact gain much of their knowledge from patents, turning instead to other sources.” (citing Wesley M. Cohen et al., R&D Spillovers, Patents and the Incentives to Innovate in Japan and the United States, 31 RES. POL’Y 1349, 1362-64 (2002)). But see Ouellette, supra note 67, manuscript at *25-41 (finding that researchers do glean some useful information from patents); Jason Rantanen, Peripheral Disclosure, available at http://ssrn.com/sol3/papers.cfm?abstract_id=1907360 (providing a novel rationale for the value of patent disclosures).
264 See Seymore, supra note 252, at 625 (“[S]cientists and engineers are not trained to read patents. In college and graduate school they learn that research funding, reputation, and tenure decisions turn on publications in peer-reviewed technical journals.”) (footnotes omitted).
267 See generally Seymore, supra note 264; see also Fromer, supra note 247. Also, as I have noted elsewhere, there is some tension between the enablement requirement of patent law scientific norms of reproducibility and verifiability. See Dmitry Karsh tedt, Limits on Hard-To-Reproduce Inventions: Process Elements and Biotechnology’s Compliance with the Enablement Requirement, 3 HASTINGS SCI. & TECH. L.J. 109, 109-117 (2011).
268 See supra note 257. Seymore argues, however, that willful infringement will not be as strong of a deterrent to reading patents after In re Seagate Tech., LLC, 497 F.3d 1360 (Fed. Cir. 2007) (en banc), which made it more difficult to prove willfulness. Seymore, supra note 264, at 625. Ouellette’s empirical work suggests that researchers’ worries about willful infringement are “extremely minor.” Ouellette, supra note 67, manuscript at 390-40. However, the percentage of industry as opposed to academic researchers in her study is very small, suggesting perhaps that academics don’t fear infringement suits in general. See id. at 64. Another recent empirical paper found that willfulness findings did not significantly diminish after Seagate. See Christopher B. Seaman, Willful Patent Infringement and Enhanced Damages After In re Seagate: An Empirical Study, forthcoming IOWA L.R. available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1751831, manuscript at *1.
269 See supra note 262 and accompanying text.
the quid pro quo may be “an illusion” since patents tend to claim much more than they actually disclose.270

Of course, by hypothesis the information in a secret invention falling under the rule of Metallizing cannot be gleaned from its commercial products. Also, it is assumed that the invention cannot be learned from other sources like peer-reviewed publications, which would defeat trade secret rights in the invention as a legal matter271 and defeat the patent rights as well on the theory of anticipation by prior art.272 Given the total secrecy shrouding such inventions, isn’t some disclosure via a patent, imperfect though it may be, better for the public than no disclosure at all?

The answer, suggested in a recent paper by Alan Devlin, starts with the realization that the value of patent disclosure must always be balanced against the effect of mandated disclosure on incentives to engage in inventive activities.273 Indeed, Devlin argued forcefully for the proposition that disclosure is distinctly subordinate to the role of the patent system in providing an incentive to invent.274 Inventors, the argument continued, most logically choose to opt for the patent system in cases where inventions tend to be “self-revealing,”275 such as the paradigmatic example of the paper clip.276 Without patent protection, the paper clip invention would be an easily appropriable “public good,”277 with others easily able to free-ride on the research efforts of the first inventor after figuring out how the paper clips works simply upon visual inspection of a commercial embodiment. For inventions that are more readily “concealable,”278 such as the secret machines and processes governed by the rule of Metallizing, the Patent Act’s disclosure requirements279 place a significant cost on the researcher, who is understandably averse to revealing the details of such inventions to the world.280

Applying Devlin’s arguments to Metallizing-type inventions, it becomes clear that the researcher in this scenario faces Hobson’s choice of

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271 See UNIFORM TRADE SECRETS ACT § 1(4) (1985) (“‘Trade secret’ means information not otherwise in the public domain that (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, others who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.”) (emphases added).


273 Devlin, supra note 262, at 404; see also SCHLICHER, supra note 251, at § 1.04[3], at 1-26.

274 Id. at 425 (“[T]he normative implications of disclosure and incentive-to-invent principles point in opposing directions. The former suggests that patentability should be broader than what is minimally required to spur innovation. The latter cuts against such broad reach. The incentive-to-invent rationale, however, should carry the day.”).

275 Id. at 426.


277 Devlin, supra note 262, at 442.

278 Id. at 417.


280 Devlin, supra note 262, at 420.
1) patenting the invention and revealing its workings in the patent’s specification or 2) keeping it “suppressed or concealed” as a non-informing trade secret and risk the patenting of the invention by a third party that would turn the original inventor into an infringer, or at least losing the trade secret right if the invention becomes generally known. This state of affairs might chill the development and commercial application of concealable inventions, and Devlin comes to the interesting conclusion that, to incentivize such inventions, we might in theory be better off with a patent system that does not require an enabling disclosure. To put it in a concrete context, it is possible that the Metallizing rule, which essentially forces an inventor to opt into the patent system and disclose his or her secret inventions within a year of their commercial exploitation, may do more harm than good to society as a whole if it results in significant chilling of certain kinds of inventive activity. This result may obtain, for example, if the inventor contemplating the development of a secret process or machine whose commercial products he or she plans to sell would prefer taking more than one year before deciding whether to opt for trade secret rather than patent protection.

Of course, this is not the way the law stands right now, and the Metallizing rule forces inventors to make the tough trade secret/patent choice within a year of first commercial exploitation, however it is to be defined. But how would additional time result in a greater ex ante incentive to invent? As an initial matter, it seems intuitive that, the more time the inventor has to make the trade secret/patent choice, the more likely he or she is to figure out correctly which of the two methods of intellectual property protection is more advantageous. The ability to choose can be viewed as a

281 See supra note 82; see also infra note 300.
282 Id. (“If an inventor would prefer patent protection but chooses trade secrecy instead due to the cost associated with the § 112 requirements, then we know something important: the inventor would gain more utility from patent protection with no disclosure requirements than she would from trade secret. Greater utility translates into a larger ex post reward. Such enhanced ex post value means greater ex ante incentives to innovate. The ‘incentive to disclose’ may therefore at times be in tension with the utilitarian ‘incentive to invent’ foundation of the patent system. . . . [R]egarding the patent regime’s creation of incentives as superior to any disclosure function is the better view.”). Devlin ultimately concludes that inventors of concealable inventions seek patent protection because their reverse engineering is possible, justifying the Patent Act’s disclosure requirements. Id. at 421-22. But by hypothesis, however, reverse engineering of Metallizing-type inventions is not possible, leaving independent discovery as the only fear of the inventor subject to the rule of Metallizing.

283 Id. at 419-20. The enablement requirement also plays the important role of delimiting the scope of patent claims. See, e.g., Sitrick v. Dreamworks, LLC, 516 F.3d 993, 1000 (Fed. Cir. 2008) (holding that the patent disclosure must enable the practice of “the full scope of the claimed invention.”). Devlin, however, does not propose doing away with the enablement requirement but instead uses the example of patents on concealable inventions as a thought experiment revealing the costs of disclosure and the tension between disclosure and the incentive to invent.

285 The downside of allowing the inventor to take time to make the trade secret/patent decision is that the public will have to wait longer for the disclosure of the invention if it is finally patented. On the other hand, the patentee’s delay also means that the burdening of the public with a patent monopoly is at least delayed and possibly foregone if intervening discoveries will make the invention at issue anticipated or obvious. (Indeed, this is a major risk that an inventor takes by delaying patenting. See infra notes 300, 324
“call option”; in economic terms, the longer the term during which an option can be exercised, the greater its value. Formally, the increased option value that comes with having more time to choose between patent and trade secret protection lies in enabling inventors to make the less costly of the two choices in a greater number of cases, which would overall increase the incentive to invent.

To be sure, even though giving the inventor an option of longer than one year might be preferable to the Metallizing rule, an infinitely long option is also undesirable because of high costs it might impose on society. One has to guard against “submarine patenting” and other strategic abuses of the patent system, like those that led the Macbeth court to correctly invalidate the patent it considered. Indeed, the doctrine of prosecution laches, which protects accused infringers who have relied on the absence of patents in a certain technology space, is a subset of common-law “equitable forfeiture” of a patent authorized by the Pennock dicta. But the inquiry into whether the patentee has acted in bad faith is of necessity case-specific and Judge Hand’s strict, faux-legislative one-year rule takes and accompanying text; see infra notes 308-312 and accompanying text for an explanation how more robust trade secret protection can be salutary for society because of concomitant avoidance of monopoly.) More importantly, if one accepts Devlin’s (and Judge Newman’s, see infra note 296 and accompanying text) proposition that the incentive to invent is more important than disclosure as a justification for the patent system, perhaps the harm of delayed disclosure is offset by the benefit of increased ex ante incentive to invent facilitated by the rule that gives inventors more time to decide. This position is buttressed by problems with patent disclosures. See supra notes 243-270 and accompanying text. Finally, the law accepts the outcome where the public will never learn of some patentable inventions by allowing trade secret protection to such inventions. See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 489-91 (1974); see also id. at 490-91 (“Nor does society face much risk that scientific or technological progress will be impeded by the rare inventor with a patentable invention who chooses trade secret protection over patent protection. The ripeness-of-time concept of invention, developed from the study of the many independent multiple discoveries in history, predicts that if a particular individual had not made a particular discovery others would have, and in probably a relatively short period of time.”).

See Using Black-Scholes To Put a Value on Stock Options, ABOUT.COM, http://beginnersinvest.about.com/lw/Business-Finance/Personal-finance/Using-Black-Scholes-to-Put-a-Value-on-Stock-Options.htm (“Under the Black-Scholes model, an option with a longer life span is more valuable than an otherwise identical option that expires sooner. This makes logical sense: With more time to trade, a stock has a greater chance of surpassing its target price.”) (last visited May 1, 2011).


See supra notes 119-125 and accompanying text.

See supra note 123.

See supra note 155-167 and accompanying text.

See infra note 401 and accompanying text for a proposed rule that would replace the purely case-specific analysis in cases like Woodbridge and Macbeth. The rule might simplify patent validity determinations in court and would likely be more easily administrable by the USPTO than the common-law equitable forfeiture inquiry.

The difference between the strict one-year Metallizing bar and the pre-Metallizing case-by-case analysis is comparable to the difference between § 102(b), which creates a strict one-year on-sale bar, and § 102(c), which does not mandate a specific timeframe for finding patent abandonement. I believe that the pre-Metallizing case-by-case analysis into the motivation and conduct of the patentee is the correct approach because, like the §
away the courts’ ability to figure out whether or not an inventor imposed unwarranted externalities on society by waiting as long as possible to patent a secret invention.294

The determination of whether possible disclosure benefits of the Metallizing rule outweigh the costs of the rule imposed on inventors is an empirical question, and one that has not, to my knowledge, been answered. Perhaps the strict one-year bar is the right rule from the point of view of costs and benefits, though limited value of patent disclosures makes this highly doubtful.295 Be that as it may, given that the one-year rule has the flavor of a legislative determination, the fatal flaw of the opinion is that it is completely devoid of the discussion of the incentive to invent. It is as if Judge Hand simply forgot to use one side of the scale—weighing only the benefits of disclosure without the costs it imposes on innovators. The Federal Circuit, it might be noted, has long been attuned to the tension between the utilitarian principles of the patent system and the disclosure rationale, having articulated it very clearly in an important en banc opinion: “The obligation to disclose is not the principal reason for a patent system . . . . The reason for the patent system is to encourage innovation and its fruits: new jobs and new industries, new consumer goods and trade benefits.”296 Unfortunately, like the Metallizing opinion itself, the Federal Circuit’s Metallizing rule jurisprudence does not engage in the necessary balancing.297

In addition, even if one accepts Judge Hand’s position that apparently elevates the value of disclosure to an absolute status in the patent system, the disclosure-based argument for the one-year bar might, in some circumstances, fail on its own terms. An unsuspecting inventor who “fails” the one-year bar and thereafter comes to see an attorney about a patent—perhaps not such an unlikely scenario—will be told that he or she can never get the patent under the Metallizing rule, and will keep the invention a secret in perpetuity. Thus, like the famed Coca-Cola formula, the invention might never see the light of day,298 and the public will never get its benefit unless someone independently discovers the machine or process at issue.

102(c) abandonment provision, the rule is a “first-party-only” bar. In contrast, the § 102(b) on-sale bar is “agnostic” to who is doing the selling—either first- or third-party activities will do. See, e.g., Evans Cooling Sys. v. General Motors Corp., 125 F.3d 1448 (Fed. Cir. 1997) (invalidating a patent due to pre-critical date third-party sales activities even though the third party misappropriated the patentee’s invention). For the agnostic bar, an inquiry into the subjective state of mind of the inventor is irrelevant and the bright-line one-year rule makes sense. In contrast, the case-by-case inquiry is critical and the bright-line rule is much less justified for the “first-party-only” bar because of the significantly punitive nature of a rule that singles out the inventor’s activities in working patent forfeiture. While the analogy to criminal law is surely a stretch, one cannot help that be reminded that the law generally frowns upon punishment for strict liability offenses. Perhaps then, instead relying upon the “strict liability” one-year bar, the courts need to revise the Metallizing rule and instead examine whether the patentee willfully or negligently delayed patenting. See also supra note 376 and accompanying text.

294 To be sure, such concealment might be difficult to detect, though this whole area of law deals with secret inventions and concealment can be a problem under the one-year rule as well. One expects, however, that vigorous discovery practice will enable ferreting out secret machines or processes used to make commercially available products, giving courts a full picture of the facts on which to decide whether a patent should be forfeited.

295 See supra notes 251-270 and accompanying text.

296 Paulik v. Rizkalla, 760 F.2d 1270, 1276 (Fed. Cir. 1985) (en banc).

297 See supra Part II.D.2.

298 Perhaps the Coca-Cola formula is no longer secret. See Mark Pendergast, For God, Country and Coca-Cola:
2. The problem of overpatenting

Even if the system worked as Judge Hand had intended and inventors of secret processes or machines promptly filed patent applications within a year of their first commercial application, this very end result might not be socially desirable. In a sweeping critique of various doctrines that promote the early filing of patents, such as the statutory bars, Chris Cotropia argued that inventors often lack market information that might enable them to appraise the value of their inventions. In the climate of uncertainty associated with early filing and the fear of forfeiting the patent right or being preempted by another inventor, inventors often “err on the side of filing.” This practice overwhelms the PTO with patent applications, leads to too many patents of dubious quality, and creates a situation where many patented inventions are underdeveloped. This last consequence of early filing is particularly adverse to the goals of the patent system “because it can only hamper, as opposed to promote, technological progress”; uncommercialized patents “do not generate a social benefit on their own,” “drag down the development of other technologies,” and “contribute to the patent thicket.” But given the uncertainty about the value of many inventions at the time that patent applications are filed, it is axiomatic that, thanks in part to the doctrines encouraging early filing, many patents will not be commercialized. And while one argument for prompt patenting is that inventions are sooner returned to the public domain, Cotropia’s catalogue of problems with the consequences of the “file early, file often” mentality suggests that the harms of prompt disclosure might outweigh its benefits.

Consistent with Cotropia’s intuitions, and with those of Devlin, Jonas Anderson observed in a recent paper that robust trade secret protection can give inventors better incentives to create relative to the patent system for inventions that are difficult to reverse engineer. He argued that intellectual

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299 See Cotropia, supra note 287, at 93-95.
300 Id. at 97 (“Either file for a patent with the little technical and market information available or wait while more information becomes available and the value of a patent right becomes more certain. The patent rules make it risky to wait, with each additional day increasing the risk that the inventor loses the right to her invention. If she loses her patent rights because of delaying filing, they are lost forever, and she possibly becomes subservient to another’s patent rights.” (footnotes omitted)); see also supra notes 281-282 and accompanying text.
301 Id.
304 Sichleman, supra note 265, at 383.
306 Cotropia, supra note 287, at 101.
307 See supra notes 273-280 and accompanying text.
property law should encourage secrecy in some scenarios and called for a reversal of some doctrines against secrecy.\(^{309}\) Echoing Cotropia’s conclusions, Anderson went on to argue one increased benefit of trade secrecy relative to patenting, in addition to the incentives it creates for the trade secret owner,\(^{310}\) is “increased competition for innovative ideas”\(^{311}\) enabled by a reduced volume of patenting.

Cotropia’s solution to the problem of early filing focused on improving what he viewed as overly permissive disclosure rules, and he proposed a requirement of actual reduction to practice for patenting.\(^{312}\) However, the rules that affirmatively promote early filing also clearly contribute to the problem of overpatenting. The question, again, is whether such rules do more harm than good. Among the features of the Patent Act that promote early filing are the statutory bars that are actually rooted in the text of the statute—the public use and on-sale bars.\(^{313}\) While they have not escaped criticism, the statutory bars do serve a very important purpose: by displaying a product embodying an invention publicly\(^{314}\) or placing it into the stream of commerce, inventors at least in theory give others an opportunity to learn how to practice the invention unprotected by a patent.\(^{315}\) Since subsequent patenting has the highly undesirable effect of withdrawing the invention from the public domain,\(^{316}\) the bright-line one-year rule makes sense in situations where the invention is actually disclosed to the public.\(^{317}\)

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\(^{309}\) Id., manuscript at *39 (“[P]olicy makers ought to be more concerned with encouraging the use of secrecy, rather than discouraging it.”); cf. supra notes 280-282 and accompanying text.

\(^{310}\) The notion that an important purpose of trade secret law, like that of patent law, is to create incentives to invent is now well-established. See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 493 (1974) (“Trade secret law . . . permits the individual inventor to reap the rewards of his labor . . . .”); see also id. at 482 (commenting with a approval on a state supreme court decision that touted the “importance of trade secret protection to the subsidization of research and development and to increased economic efficiency within large companies through the dispersion of responsibilities for creative developments” (quoting Wexler v. Greenberg, 160 A.2d 430, 434-435 (Pa. 1960))); Gregory A. Sidak, Trade Secrets and Involuntary Exchange, unpublished manuscript, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=577244, manuscript at *10 (“[T]he majority of American jurisdictions now agree on the core principles of trade secret law, including the ex ante view of innovation.”). Nevertheless, the role of trade secret law in incentivizing innovation has been disputed. See Michael Risch, Why Do We Have Trade Secrets?, 11 MARQ. INT’L PROP. L. REV. 1, 26 (2007) (“[C]reating incentives to innovate is a very minor justification of trade secret law.”).

\(^{311}\) Id. at 122.


\(^{313}\) The meaning of “public” in this context, to be sure, is “theoretically accessible to the public.” See Egbert v. Lippmann, 104 U.S. 333 (1881); see also SCHICHTER & THOMAS, supra note 15, at 89; supra note 168 and accompanying text.

\(^{314}\) See infra notes 369-377 for further discussion of the possible “public knowledge” dimension of the on-sale bar.

\(^{315}\) See Patrick J. Barrett, Note, New Guidelines for Applying the On Sale Bar to Patentability, 24 STAN. L. REV. 730, 733 (1972) (“[A]ctual or attempted sales of an invention may cause the public to reasonably rely on the belief that the information disclosed is in the public domain. If, on the basis of such disclosure, members of the public do start making, using, or selling the invention, the granting of a patent on the invention will be to their detriment.”) (footnotes omitted)).

\(^{316}\) Note, however, that for the actual statutory bars to apply, there must be public use of the invention or a sale or an offer for sale of the invention. Mere public knowledge is not
Third parties will know that, if an invention was, say, exhibited publicly at a trade show, and no patent application was ever filed, they are free to practice the invention that they have learned from the display.

In contrast, again by hypothesis, a sale of a commercial product of a truly secret invention does not teach the public anything about the invention, so the powerful rationale of preventing withdrawal of inventions form the public domain is simply not present. It is curious, indeed, that in many countries the policy of preventing the patenting of publicly available inventions is so strong that they adhere to the absolute novelty rule, forgoing the one-year grace period afforded to inventors who file for U.S. patents. But no country has anything like our Metallizing rule.

So as it stands, the Metallizing rule contributes to early patenting and imposes costs on inventors, while providing little in the way of corresponding benefits if one accepts the argument that patent disclosure fails to deliver enough information to the public to make up for these harms. Of course, as Cotropia and others have noted, many legal and practical forces combine to encourage early patenting. If the Federal Circuit or the Supreme Court overrules the Metallizing rule, or Congress abrogates it, it is unlikely that we will see a sudden increase in the number of quality patents that lead to commercial products. But perhaps a change in the rule will at least alleviate some of the problems with early patenting that Cotropia discussed. After all, inventors who make products of secret inventions commercially available may be in the process of figuring out whether the underlying patents would have any economic value independent of the right to sue.

sufficient to trigger a statutory bar, though the invention might still be invalidated under § 102(a) in this situation. See Motionless Keyboard Co. v. Microsoft Corp., 486 F.3d 1376 (2007); Shashank Upadhye, To Use or Not To Use: Reforming Patent Infringement, the Public Use Bar, and the Experimental Use Doctrine As Applied to Clinical Testing of Pharmaceutical and Medical Device Inventions, 4 MINN. INTELL. PROP. REV. 1, 11 (2002); see also Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261 (Fed. Cir. 1986), cert. denied, 479 U.S. 1030 (1987); infra notes 369-377 and accompanying text.

Unless, of course, an earlier inventor owns a patent on the same invention.

A different harm of dispensing with the Metallizing rule is that its absence might encourage inventors to keep secrets that they would otherwise disclose. But as Anderson and Devlin suggested, the harms of increased trade secrecy might be outweighed by increased incentives to invent and reduced monopoly burdens. See supra notes 307-312 and accompanying text; see also supra note 285.


For example, the later one attempts to patent something, the more prior art there is out there that might anticipate the claims to the invention. See Cotropia, supra note 287, at 78-79. See generally Sichelman, supra note 265.

Such inventors, to borrow Cotropia’s words, may need patents to “clear commercialization space.” Cotropia, supra note 287, at 114.
This is precisely what Meduna was doing when he was filling his orders for refurbished machine parts—that, and trying to make a living. For Meduna, and perhaps for many other small inventors, good-faith efforts to learn the market for the invention and obtain funding to apply for a patent and commercialize it on a large scale may well take more than a year. Are these really the kinds of inventors we want to punish with a judge-made forfeiture rule, even though, unlike those who violate the actual § 102(b) bars, they withdraw nothing from the public domain by patenting? Instead, why not give them time to develop solid patents that will support their business activities? Cotropia noted that the prevalence of uncommercialized patents tends to foster “trolling” activities, defining trolls as those “who use the patent to simply extract rents” by actual or threatened litigation, “as opposed to clear commercialization space.” But no matter how one feels about trolls, non-practicing entities, patent-holding entities, patent-assertion entities, or however else non-commercializing patent owners have been described, I think all can agree that an inventor like Meduna and his assignee, Metallizing Engineering Co., which both actively practiced the invention and put it to commercial use, are not trolls. Of course, the concept of a trolls was not known in 1946. Perhaps, a judge in 2011 would have treated today’s version of Metallizing Engineering Co. better than Judge Hand treated Meduna’s assignee in 1946.

B. Monopoly

1. Trade secrets are not monopoly rights

Judge Hand’s “extension of monopoly” rationale for the Metallizing rule is even less convincing than the disclosure rationale. When an inventor decides to patent a secret invention, there is no “monopoly” to “extend,” since the owner of a non-informing trade secret has, up to that point, proceeded at the risk of being sued for infringement if another person were to patent the same invention. To be sure, the owner of a trade secret often has powerful remedies against a departing employee or a competitor who found a creative approach to gathering information about its production knowhow. Nevertheless, as discussed extensively above, the trade secret “monopoly” can be extinguished by reverse engineering and independent

326 See supra notes 79-88 and accompanying text.
327 Cotropia, supra note 287, at 114.
328 In contrast, a bigger concern in 1946 was that patentees maintained “monopolies,” as Part III.B will further explore. See, e.g., Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661 (1944). The focus of public opprobrium has shifted today, with “trolls” held by many in lower regard than, say, Microsoft Corporation, which has been charged with monopolistic behavior. See, e.g., United States v. Microsoft Corp., 87 F. Supp. 2d 30, 44 (D.D.C. 2000), aff’d in part, rev’d in part, 253 F.3d 34 (D.C. Cir. 2001) (per curiam) (en banc), cert. denied, 534 U.S. 952 (2001). Even if one views the Metallizing case from the point of view of anti-monopoly mores of the first half of the twentieth century, Meduna was not exactly Rockefeller, and Metallizing Engineering Company was no Standard Oil.
329 It is safely assumed that a secret invention within the meaning of Metallizing meets the legal definition of a trade secret. See UNIFORM TRADE SECRETS ACT § 1(4) (1985); see also supra note 271.
330 See supra note 300 and accompanying text; see also supra note 281 and accompanying text.
331 See, e.g., PepsiCo, Inc. v. Redmond, 54 F.3d 1262 (7th Cir. 1995).
332 See, e.g., E.I. du Pont de Nemours & Co v. Christopher, 431 F.2d 1012 (5th Cir. 1970).
invention,\textsuperscript{333} by appearance of information in the public domain that makes the secret “generally known” or “readily ascertainable,” as well as by the trade secret owner’s own failure to take reasonable precautions in protecting the secret.\textsuperscript{334} These scenarios are not all that unlikely; indeed, given that near-simultaneous independent inventions of significant technologies are quite common,\textsuperscript{335} it is sensible to posit that, a fortiori, others stand a good chance of independently discovering processes or machines that the first inventor attempts to keep secret for years.\textsuperscript{336} While such discoveries will not always extinguish the trade secret, since more than one company can own rights to the same technology without it becoming “generally known” within the meaning of trade secret law,\textsuperscript{337} the first inventor will lose both trade secret and patent rights if the latter researcher publishes or patents the invention. This is a harsh penalty for an attempt to delay patent monopoly,\textsuperscript{338} and one wonders if the punitive rule of Metallizing is necessary if the powerful threat of independent discovery already hangs over the first inventor like the sword of Damocles.\textsuperscript{339}

\textsuperscript{333} See supra note 282 and accompanying text.

\textsuperscript{334} UNIFORM TRADE SECRETS ACT § 1(4) (1985).

\textsuperscript{335} Lemley, supra note 254, at *1 (“[S]urveys of hundreds of significant new technologies show that almost all of them are invented simultaneously or nearly simultaneously by two or more teams working independently of each other.”).

\textsuperscript{336} The Kewanee Court, for one, was optimistic in its belief that independent inventions would dissipate potentially anti-competitive effects of trade secret protection: “[S]ociety [does not] face much risk that scientific or technological progress will be impeded by the rare inventor with a patentable invention who chooses trade secret protection over patent protection. The ripeness-of-time concept of invention, developed from the study of the many independent multiple discoveries in history, predicts that if a particular individual had not made a particular discovery others would have, and in probably a relatively short period of time. If something is to be discovered at all very likely it will be discovered by more than one person. Even were an inventor to keep his discovery completely to himself, something that neither the patent nor trade secret laws forbid, there is a high probability that it will be soon independently developed. If the invention, though still a trade secret, is put into public use, the competition is alerted to the existence of the inventor’s solution to the problem and may be encouraged to make an extra effort to independently find the solution thus known to be possible.” Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 490-91 (1974) (citations and footnotes omitted); see also Risch, supra note 310, at 39 (“[D]uplicate innovation’ . . . may lead to improvements better than the first secret.”).

\textsuperscript{337} Risch, supra note 336, at 12 (“[T]rade secret laws allow for the protection of identical information if two parties independently discover the information. Two companies can own the same trade secret, though they arguably would never know it.” (citations omitted)).

\textsuperscript{338} If the problem is better characterized as “delay” rather than “extension” of the patent term, the right solution would be simply to reduce the patent term by the number of years that the trade secret was commercially exploited, with one year of grace period added back. Thus, if the trade secret was commercially exploited for six years, at which time the application for a patent was filed, the patent term would be only 15, rather than 20, years from the application date. It is as if the patentee is allowed to choose how to split the 20-year term between patent and trade secret protection. The author thanks Professor Lemley for proposing this legislative solution to the problems posed by Metallizing. For another legislative solution to patent delay, see infra note 401.

\textsuperscript{339} So what of inventions that do not seem to be easily susceptible to independent discovery? One might argue that the first inventor in this scenario, who gambles and wins on the possibility that someone else does not come up with the same discovery, is perhaps entitled to the opportunity to delay his or her monopoly. After all, the fact that others are unable to come up with the same invention for years might indicate that it is powerfully non-obvious, and we might let such inventors reap the added benefits of their unique discoveries by allowing them to “extend” their monopolies—first, by enjoying the first-
Stated simply, trade secret protection is weaker than patent protection precisely because it provides the owner no right to exclude others from practicing the invention. It only provides the owner with monetary and injunctive relief for converting the secret through conduct that rises to the level of misappropriation. And if the misappropriator’s conduct has caused the trade secret to become publicly available, the owner cannot get an injunction against its further dissemination. Even though the owner of the trade secret might get monetary relief from the misappropriator in such a scenario, the intellectual property right of the trade secret has simply ceased to exist through wrongful public dissemination. In sum, even though trade secrets have clearly come to be recognized a species of a property right, and, as such, offer significant benefits to their owners, they are a weak property right at best. And even though, by keeping an invention secret, the inventor delays disclosure, the public still receives some benefit of the invention by being able to purchase a commercial product made possible with the aid of the secret invention.

mover advantage, and later, by acquiring a patent. A better view, and one that I take, is that such strategic use of the patent system is not acceptable and uses of secret inventions for a long period time, followed by strategic patenting, should lead to a loss of the patent right either through equitable case-by-case analysis or through a new rule that creates a presumption of forfeiture after a certain number of years of delay of patenting. See supra note 292; infra note 401. But see Karl F. Jorda, Patent and Trade Secret Complimentariness: An Unsuspected Synergy, 48 WASHBURN L.J. 1, 7 (2008) (“[O]ne may consider trade secrets as ‘wasting assets,’ whose average life is only about three to five years.”).

Id. § 1(2), 2, 3.

See, e.g., DVD Copy Control Ass’n v. Bunner, 10 Cal. Rptr. 3d 185, 192-93 (Ct. App. 2004).

Id.

See generally Lemley, supra note 276.


See supra note 276.

See, e.g., Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 489-90 (1974); Nuno Pires de Carvalho, The Theorem of the Social Value of Patented Inventions and the Happiness Machine Patent Syndrome—Why Society Lets Fundamental Patents To Be Intensely Attacked, in REV. ELETR. DO IBPI NO. 3 (Dec. 2010), at 126, 128 available at http://www.wogf4yv1u.homepage.t-online.de/media/c1cd349287c9c15aff802bfffffef.pdf (“In the case of secret inventions, inventors are still able to capture revenue from their exploitation, but their exclusivity is weak, for barriers resulting from secrecy can be legally circumvented by reverse engineering or incidental disclosure.”).

Cf. supra note 285.

Cf. Dunlop Holdings Ltd. v. Ram Golf Corp., 524 F.2d 33, 37 (7th Cir. 1975) (“Even such a [non-informing] use gives the public the benefit of the invention. If the new idea is permitted to have its impact in the marketplace, and thus to ‘promote the Progress of Science and useful Arts,’ it surely has not been suppressed in an economic sense.” (quoting U.S. CONST., art. I, § 8, cl. 8)).

Even though an alternative rationale for the Dunlop Holdings decision is that the secret chemical was actually in the commercially available golf balls designed by Wagner, thereby making reverse engineering at least possible, see supra note 89, the “benefit of the invention” language appears to sweep in fully secret inventions whose products are placed in the stream of commerce. But see Dunlop Holdings, 524 F.2d at 37 (distinguishing Gillman v. Stern because that case “involved a patent on a machine; the benefits of using the machine were not made available to anyone except the inventor” and because “the case arose out of an interference proceeding in which the dispute was between two applicants for a patent”). See also Jorda, supra note 339, at 6-7 (arguing that “trade secrets are not secret only in a
The *Metallizing* court spoke of owners of secret inventions as having “practical monopoly by means of secrecy,” but failed to analyze what this so-called “monopoly” means in practice under the trade secret law of the time, which arguably treated invasions of trade secret rights as torts rather than trespasses against property in any event. In addition, Judge Hand entertained no charge that Meduna’s assignee had ever behaved monopolistically within the meaning of the antitrust laws, on a theory of “misuse” of an intellectual property right or otherwise. There is a reason why Judge Hand cited no patent misuse or indeed any antitrust cases in his opinion. Although the Supreme Court has shown a great deal of interest in the intersection of antitrust and intellectual property laws in the years preceding the *Metallizing* decision, the courts have rarely punished inventors for misuse of trade secrets. The plaintiff in *Metallizing* was charged with trying to extend its monopoly even though, before the grant of the patent, it had neither legal monopoly over the process of metalizing, nor a commercial monopoly in the field of refurbishing machine parts that the antitrust laws would have covered.

2. **Policy against commercial exploitation is weaker for secret inventions relative to inventions placed on sale**

Some commentators have argued that, antitrust law aside, what Judge Hand was really concerned about was consumer welfare in another sense. For example, consumers who get used to paying a certain price for a product made with the aid of an invention protected by a trade secret might limited legal sense and the term ‘trade secret’ is a constricted term of art because trade secret confer benefits upon the public through commercialization, “alert the competition to the existence of the inventor’s solution to the problem,” and may often dissipate because of employee mobility).

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348 *Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 519 (2d Cir. 1946), cert. denied, 328 U.S. 840 (1946).

349 *Compare* RESTATMENT (FIRST) OF TORTS § 757 (1938) (trade secret misappropriation liability attaches for wrongful disclosure or use but not wrongful acquisition of a trade secret), with UNIFORM TRADE SECRETS ACT § 1(2) (1985) (wrongful acquisition of a trade secret falls within a definition of “misappropriation”). To be sure, there is no discussion whatsoever of trade secret law in the *Metallizing* opinion. For a helpful analysis of various conceptions of trade secret law, see Lemley, *supra* note 276, at 319-29.


351 See *supra* note 350.


353 To be sure, the issue here might be more accurately characterized as “delay” of patent monopoly. See *supra* note 338 for an analysis and a possible solution of the specific problem of delay of patent monopoly.
be “unfairly surprised” when the manufacturer received a patent on that invention and started charging a higher price. This policy against commercial exploitation sometimes serves as a reason for barring patentability independently of the rationale against withdrawing inventions from the public domain—after all, the on-sale bar applies even when the invention was not publicly disclosed.\footnote{\textit{Barrett, supra} note 316, at 734. Nevertheless, protection of the public domain is an independent justification of the on-sale bar. \textit{See infra} note 376 and accompanying text.} Echoing Judge Hand’s “extension of monopoly” language, an influential commentary on the policies behind statutory bars justified the on-sale bar as follows: “An inventor would certainly have the best of two worlds if he could commercially exploit his invention without disclosing it for an indefinite amount of time before he applied for a patent, giving him an additional seventeen years of exclusive rights.”\footnote{\textit{Id.}}

This “non-antitrust monopoly” concept dates back to \textit{Pennock v. Dialogue},\footnote{27 U.S. (2 Pet.) 1 (1829).} which of course predated the country’s first antitrust statute by many years,\footnote{The Sherman Antitrust Act became law in 1890. \textit{See Sherman Act}, July 2, 1890, ch. 647, 26 Stat. 209.} and for that matter predated the development of modern secret law as well.\footnote{Cases containing the beginnings of modern trade secret cases appear in 1860s. \textit{See, e.g., Peabody v. Norfolk}, 98 Mass. 452 (1868) (cited in Robert G. Bone, \textit{A New Look at Trade Secret Law: Doctrine in Search of Justification}, 86 CALIF. L. REV. 241, 252-53 (1998)). It is sometimes argued, \textit{see} First, \textit{supra} note 352, manuscript at *10, that the “first reported trade secrets case” is \textit{Vikery v. Welch}, 36 Mass. 523 (1837), but the “trade secret” in that case was also protected by an explicit agreement not to use or disclose. \textit{See Bone, supra}, at 252. But even the 1837 \textit{Vikery} case post-dated \textit{Pennock}.} The operative quote from \textit{Pennock}, however, clearly captures both the disclosure and monopoly rationales that Judge Hand used to create the rule in \textit{Metallizing}:

\begin{quote}
If an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention; if he should \textit{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 exclusive right, he should be allowed to take out a patent, and thus exclude the public from any farther 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.\footnote{\textit{Pennock}, 27 U.S. at 19 (emphasis added).}  
\end{quote}

Of course, Judge Hand had to selectively omit the phrase “for a long period of years” because he sought to reach the result of a bright-line one-year bar rather than engage in a case-specific equitable forfeiture determination,\footnote{\textit{See supra} note 155-167 and accompanying text.} quoting \textit{Pennock} as saying only that “‘[i]f an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention; if he should . . . make and sell his invention...”
publicly, and thus gather the whole profits . . . .”361 Even if one buys the argument that, by delaying patenting, the trade secret owner commercially exploits the invention to the detriment of consumers, the full quotation from Pennock suggests that the Court’s concern was limited to those who kept their invention secret for a long time and perhaps even meant to limit the forfeiture policy to those who affirmatively intended to conceal it as for long as possible.362

Putting my ongoing quibbles with Judge Hand’s reasoning in Metallizing to one side, the policy against commercial exploitation has remained a powerful justification for the statutory bars, which of course have a strict one-year limit written into them.363 In an important case, the Federal Circuit articulated the view that policy justifications are the lens through which the bars of § 102(b) should be viewed:

In order to determine whether an invention was on sale or in public use, we must consider how the totality of the circumstances comports with the policies underlying the on sale and public use bars. This approach is necessary because ‘the policies or purposes underlying the on sale bar, in effect, define it.”364

The court went on to name the already familiar rationales of “discouraging the removal of inventions from the public domain which the public justifiably comes to believe are freely available, prohibiting an extension of the period for exploiting the invention, and favoring prompt and widespread disclosure of inventions”365 as the guideposts for understanding the statutory bars. Although the Supreme Court case of Pfaff v. Wells366 repudiated the “totality of the circumstances” test for applying the on-sale bar mentioned in Manville,367 it continued to rely on the policies behind § 102(b) in formulating the new, yet familiar, “ready for patenting” test: the Court quoted Metallizing for the proposition that “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.”368

But the Pfaff Court was careful to note that the on-sale bar applied only to a sale or an offer for sale of an actual invention, stating that the sockets made with the engineering designs for which the patentee accepted the invalidating purchase order “contained all the elements of the invention

362 See also supra note 293 and accompanying text.
363 See generally Barrett, supra note 316.
364 Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 549-550 (Fed. Cir. 1990) (quoting Envirotech Corp. v. Westech Eng’g, Inc., 904 F.2d 1571, 1574 (Fed. Cir. 1990)).
365 Manville, 917 F.2d at 550 (quoting King Instrument Corp. v. Otari Corp., 767 F.2d 853, 860 (Fed. Cir.1985), cert. denied, 475 U.S. 1016 (1986)).
368 Pfaff, 525 U.S. at 68 (quoting Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 520 (2d Cir. 1946)).
claimed in the [patent-in-suit].”\textsuperscript{369} In contrast, in Metallizing, the invention at issue was one step removed from the sale, as the sales transactions involved products enabled by the invention and not the invention itself. Thus, while \textit{Pfaff} relied on the formulation of Metallizing for determining the developmental stage of the invention that triggered the on-sale bar, the Court did not approve the case’s extra-statutory bar. Moreover, it seemed important to the \textit{Pfaff} Court that the engineering designs actually communicated the nature of the invention to the prospective buyers: “the second condition of the on-sale bar [the condition being ‘ready for patenting’] is satisfied because the drawings Pfaff sent to the manufacturer before the critical date fully disclosed the invention.”\textsuperscript{370} While other case law suggests that such disclosure is not required to trigger the on-sale bar,\textsuperscript{371} it would appear that under the first prong of the \textit{Pfaff} test, which requires “a commercial offer for sale,”\textsuperscript{372} both the buyer and the seller must at least contemplate the subject matter of the invention being sold in order for the “meeting of the minds”\textsuperscript{373} required to form a contract to be possible.\textsuperscript{374} The \textit{Metallizing} bar ventures far beyond the confines of the \textit{Pfaff} test, requiring forfeiture of a patent on a secret process or machine of which the buyer is not even aware.\textsuperscript{375} In addition, courts have noted that “[o]ne of the primary purposes of the on-sale bar is to prohibit the withdrawal of inventions that have been placed into the public domain through commercialization”\textsuperscript{376} and that “reluctance to allow an inventor to remove existing knowledge from public use undergirds the on-sale bar,”\textsuperscript{377} which is a rationale that cannot justify the \textit{Metallizing} bar because the secret inventions it operates against are never in the public domain.

It appears, then, that the \textit{Metallizing} rule takes the policy against commercial exploitation a bit too far. As discussed above, all the internally operated inventions of a for-profit entity are designed to increase its competitive position in some way;\textsuperscript{378} the \textit{Kinzenbaw} and \textit{Invitrogen} cases reveal the courts’ struggle to place judicially cognizable limits on this doctrine lest it swallow up all of a firm’s secret activities—an undesirable result since not all “commercial exploitations” are the same, and treating all internal uses, even ones greatly attenuated from actual sales, equally for the purpose of the patentability bar makes very little sense.\textsuperscript{379} The statutory requirement that “the invention” be placed “on sale,”\textsuperscript{380} elaborated by the

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\textsuperscript{369} Pfaff, 525 U.S. at 68.
\textsuperscript{370} Id. (emphasis added).
\textsuperscript{371} See 2 CHISHOLM ON PATENTS, supra note 15, § 6.02[6][c], at 6-79 (“‘Public’ in Section 102(b) modifies ‘use’ and not ‘on sale.’”) (collecting cases).
\textsuperscript{372} Pfaff, 525 U.S. at 67.
\textsuperscript{373} See RESTATEMENT (SECOND) OF CONTRACTS § 17 cmt. c (1981).
\textsuperscript{374} Federal Circuit cases interpreting \textit{Pfaff} held that, for the first prong of \textit{Pfaff} to be satisfied, there must be a “commercial offer for sale” in the sense contemplated by contract law. See Timothy R. Holbrook, The Risks of Early Commercialization of an Invention: The On-Sale Bar to Patentability, in 2 INTELLECTUAL PROPERTY AND INFORMATION WEALTH: PATENTS AND TRADE SECRETS 37, 38-42 (Peter K. Yu ed. 2007).
\textsuperscript{375} The Federal Circuit refined the \textit{Pfaff} on-sale bar test for the unique situation of sales of method claims. See supra note 19 and accompanying text.
\textsuperscript{376} Abbott Labs. v. Geneva Pharms., Inc., 182 F.3d 1315, 1319 (Fed. Cir. 1999) (citing \textit{King Instrument Corp. v. Otari Corp.}, 767 F.2d 853, 860 (Fed. Cir. 1985)).
\textsuperscript{377} Pfaff, 525 U.S. at 64. The \textit{Pfaff} court noted that that this reluctance is “similar” to the reasons underlying the public use bar. \textit{Id}.
\textsuperscript{378} See supra note 217 and accompanying text.
\textsuperscript{379} See supra Parts II.D.2.b, I.E.
judicial “all-elements” gloss, reflects a legislative determination of the reach of the policy. The Metallizing rule upsets this balance and captures an indeterminate range of inventions beyond the purview of § 102(b), undermining the certainty that the Pfaff rule was meant to provide and punishing commercializing inventors.

3. The equitable approach is better suited for dealing with patent delay than the Metallizing one-year bar

Perhaps one of the most notorious patent enforcers of all time was Jerome Lemelson, who, during the latter half of the 20th century, obtained patents from so-called continuation patent applications claiming priority to original applications dating as far back as the 1950s. It has been said that Lemelson’s modus operandi was to wait until a technology matured and procure a patent at a time when a lawsuit would be most devastating to a potential defendant, enabling Lemelson to procure hefty licensing fees. This specific practice is not possible for patents issuing from applications filed after June 1995, since, after the 1995 reforms, the patent term is measured at 20 years from the application date rather than at 17 years from the date of the grant. Nevertheless, a patent owner can still keep an invention completely secret—potentially infinitely—before filing for a patent application. Such inventors, to be sure, might and likely will lose the priority date of their original inventions if they are adjudged to have “abandoned, suppressed, or concealed” the invention. Additionally, these laggard inventors face the possibility that a court or the PTO might find the invention abandoned within the meaning of § 102(c) and, of course, take the chance that intervening prior art or public use or on-sale activities of others will make the invention unpatentable under § 102(a) or (b).

In spite of these safeguards against unfair surprise from patenting of secret inventions, scenarios under which an inventor might spring the patent on its competitors and the public exist. For example, secret inventions that Invitrogen v. Biocrest has exempted from the Metallizing bar because they are too attenuated from competitive exploitation are in theory susceptible to a post-1995 version of submarine patenting, though evidence suggests that companies do not typically attempt to patent inventions that were kept as trade secrets for several years. Likewise, the Metallizing bar will not

381 See supra note 369 and accompanying text.
382 To be sure, the Pfaff two-part test has at times been challenging to apply. See generally Holbrook, supra note 374.
383 See supra Parts II.D.2.b; supra notes 236-242 and accompanying text.
384 See Holbrook, supra note 374, at 38.
385 See supra notes 325-328 and accompanying text.
387 Id. at 392-93, 397-99.
390 See supra Part II.E; see also supra notes 378-385 and accompanying text.
391 See American Intellectual Property Law Association Special Committee on Patent Legislative Priorities Report on “Forfeiture” Based upon Inventions “In Public Use or On Sale”: Proposal To Eliminate the “Forfeiture” Provisions of 35 U.S.C. §102(b) Based upon Adoption of a First-Inventor-To-File System, at *9 (on file with author) (“When new technology is created and a decision is taken to protect the technology through the trade secret law, only rarely is that decision ever revisited in fact.”).
punish a non-commercializing inventor—the dreaded troll\(^\text{392}\)—even if the inventor monetizes the trade secret via licensing before opting for a patent.\(^\text{393}\) The \textit{Metallizing} rule might thus privilege trade secrets whose commercial impact is minimal and fail to weed out what many believe to be the worst abusers of the patent system.

Perhaps, all of this suggests that, in order to effectuate the policy against “patent term extension” that might date all the way back to the English Statute of Monopolies,\(^\text{394}\) we ought to have a super-\textit{Metallizing} rule—a rule that will bar a patent on any trade secret discovered by a patentee a year or more before an application for a patent.\(^\text{395}\) I think, however, that such a rule would be hopelessly overinclusive and punish too many good-faith attempts by inventors like Meduna to develop their inventions and understand their commercial potential, without revealing the secret to anyone, before deciding to opt for the patent system. The benefits of the hard-and-fast one-year rule against submarine patenting would not come without costs—costs to inventors, who would never be able to obtain a patent on the exploited secret, and costs to society, which would suffer from potentially permanent secrecy of a discovery that an inventor was willing to reveal via a patent.\(^\text{396}\)

In her well-known article, “Crystals and Mud in Property Law,” Carol Rose noted that courts often depart from precise, “crystalline” rules and “muddy up” the law when they seek to avoid forfeiture, which is “a loss disproportionate to the lapse.”\(^\text{397}\) Similar considerations motivate abandoning the \textit{Metallizing} rule in favor of equitable approaches that preceded it. While the one-year statutory bars are also crystalline rules, those rules—even the on-sale bar, as the preceding discussion of \textit{Pfaff} v. \textit{Wells} suggests\(^\text{398}\)—are motivated in part by the critical goal of protecting the public domain.\(^\text{399}\) The fact that this rationale does not at all underlie the \textit{Metallizing} bar tends to suggest that Learned Hand’s strict punishment by forfeiture is less proportionate to the lapse than that of the § 102(b) bars. Relatedly, as I noted above, the \textit{Metallizing} rule’s exclusive focus on first-party activities hints at its relatively significant punitive character, which suggests in turn that considering the wrongdoer’s state of mind is appropriate.\(^\text{400}\) Patent forfeiture cases preceding \textit{Metallizing}\(^\text{401}\) did that at

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\(^{392}\) See supra notes 328-329 and accompanying text. This discussion assumes that the “troll” is an inventor that discovered the trade secret and ultimately obtained its own patent or acquired the patent from an entity that did not exploit its pre-patent trade secret in such a way as to fall within the ambit of \textit{Metallizing}.

\(^{393}\) See supra notes 319-323 and accompanying text.

\(^{394}\) See MARTIN J. ADELMAN ET AL., PATENT LAW PERSPECTIVES 2.3[7][f], at 2-348 n.806 (2d ed. 1982).

\(^{395}\) By definition, a trade secret has commercial character since an invention must have “independent economic value” to be protected by trade secret law. \textsc{Uniform Trade Secrets Act} § 1(4) (1985).

\(^{396}\) See also supra note 298 and accompanying text. Such permanent secrecy is unlikely to result when a patent is denied on the basis of the § 102(b) on-sale bar.


\(^{398}\) See supra Subpart III.B.2.

\(^{399}\) See supra notes 321-323 and accompanying text.

\(^{400}\) See supra note 293 and accompanying text.

\(^{401}\) See supra notes 161-166, 359-361 and accompanying text. USPTO may also deny a patent on these grounds, with the caveat that “equitable” determinations might be difficult to conduct at the PTO (though presumably the PTO can deny patents on the grounds of § 102(c) abandonment). Perhaps, the best route here is legislative action. For example, a new subsection can be added to § 102 stating that delay of patenting of a
least indirectly by taking into account the length of delay, and the modern prosecution laches doctrine, which was revived in the Lemelson cases, has reaffirmed the role of equity in patent law. Post-Lemelson, there is no reason for the courts not to apply equitable forfeiture doctrines against trade secret owners who game the patent system, and if the Federal Circuit refuses to take the lead, a legislative solution creating a “presumption of forfeiture” after a set number of years of delay may be necessary. Notably, the equitable solution will sweep in a broader range of inventions than the rule of Metallizing as potential targets for invalidation or a denial of a patent on the basis of the patentee’s strategic behavior. The presence and extent of commercial exploitation of the invention should be among the factors to be considered, along with the length of delay, reasons for delay, the subjective intent and good faith for the patentee, hardship to the patentee, and if applicable, intervening rights of the accused infringer.

IV. CONCLUSION

The patent forfeiture rule of Metallizing is unsupported by precedent or statute, and is inequitable on the actual facts of the case. The commercialized secret invention for three years (for example) is prima facie evidence for equitable forfeiture, which can be rebutted by the patentee with a good excuse for delay. Something like this already exists in trademark law, which provides that “nonuse of a trademark for three consecutive years shall be prima facie evidence of abandonment.” 17 U.S.C. § 1127. Cf. supra note 338 for an alternative legislative proposal for handing patents on previously commercialized secret inventions.

See supra note 165 and accompanying text. 403 See Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found., 277 F.3d 1361, 1363 (Fed. Cir. 2002), cert. denied, 537 U.S. 825 (2002) (holding that the doctrine of laches “may be applied to bar enforcement of patent claims that issued after an unreasonable and unexplained delay in prosecution even though the applicant complied with the pertinent statutes and rules”); see also Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found., 422 F.3d 1378, 1385 (Fed. Cir. 2005) (affirming the viability of the prosecution laches defense but noting that “the doctrine should be applied only in egregious cases of misuse of the statutory patent system”).

To be sure, there is disagreement as to whether, in the hands of the Federal Circuit, doctrine is sufficiently flexible or vigorous to deter and punish abusive behavior by patentees. “[T]he majority narrowed the equitable doctrine of prosecution laches by requiring direct evidence of intervening rights, and thereby prevented the defendant from establishing the defense. As a matter of law and of policy, I submit that the court has committed a serious wrong. The doctrine of prosecution laches is addressed in significant part to the harms improper prosecution imposes on the public.” Cancer Research Tech. Ltd. v. Barr Labs., Inc., No. 2010-1406, at *2 (Fed. Cir. Feb. 28, 2011) (citing Woodbridge v. United States, 263 U.S. 50, 60 (1923) (discussing Macbeth-Evans Glass Co. v. Gen. Electric Co., 246 F. 695, 700 (6th Cir. 1917)) (Prost, J., dissenting from the denial of rehearing en banc of Cancer Research Tech. Ltd. v. Barr Labs., Inc., 625 F.3d 724 (Fed. Cir. 2010)).

See supra note 401.

Cancer Research, at *2 (Prost, J., dissenting from the denial of rehearing en banc).

The courts already undertake a similar inquiry to determine if the inventor was first reduce to an invention to practice but was second to reduce it to practice nevertheless acted with sufficient diligence to obtain priority, in an interference proceeding, over the inventor who was first to reduce to practice but second to conceive. See 35 U.S.C. 102(g); supra note 129 and accompanying text. In her dissent from the denial of rehearing en banc in Cancer Research, Judge Prost suggested that the “totality of the circumstances” approach is appropriate for analyzing the prosecution laches defense. Cancer Research, at *3.
policy rationales for the rule are questionable, and all the more so because perhaps the most important policy reason for the existence patent system—to provide an incentive to engage in inventive activity—might not be well-served by the Metallizing rule. In addition, the rule encourages overpatenting, which can contribute to the patent thicket that stifles competition. Other appellate courts, including the Federal Circuit, have adopted the rule in seeming deference to Judge Hand and without serious analysis. While the Supreme Court cited the Metallizing case in three separate opinions, it has never endorsed the rule. Moreover, the Supreme Court in recent patent cases has hewed closely to the language of the Patent Act and accepted judge-made modifications to the patent statutes only as long as they have been supported by long-standing Supreme Court precedent. There are no such precedents for the Metallizing rule—Pennock v. Dialogue and Woodbridge v. United States are clearly distinguishable from Metallizing on their facts and Bates v. Coe speaks directly against the rule. The influential Sixth Circuit Macbeth decision likewise does not support Metallizing, if for no other reason that it warned (in language approved in Woodbridge) that patent forfeiture is never favored, and should be reserved for those cases where the patentee has behaved strategically or abusively. In addition, the textualist orientation of the current Court seems to militate against the “policy polymorphism” of distinguishing first and third parties in a statute that, in its plain language, makes no such distinction. It appears that the Metallizing rule, whose justification and scope courts and commentators are still trying to understand, has remained on the books for as long as it did because of respect for a great judge. But should we defer to Judge Learned Hand? Perhaps not. In the biting words of Judge Kozinski, Judge Hand “was very knowledgeable about everything except how the world works.” Indeed, it was Judge Carroll Hincks, the trial judge in Metallizing, who understood the small inventor’s position and allowed his patent to stand.

408 See supra note 14; see also Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 484 n.13 (1974) (citing Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co., 153 F.2d 516, 520 (2d Cir. 1946)).

409 See, e.g., Bilski v. Kappos, 130 S. Ct. 3218 (2010) (holding that abstract ideas, laws of nature, and physical phenomena are unpatentable on the reasoning of Supreme Court opinions dating back to the nineteenth century and because statutory text justifies the three exceptions). “The Court’s precedents provide three specific exceptions to § 101’s broad patent-eligibility principles: ‘laws of nature, physical phenomena, and abstract ideas.’ While these exceptions are not required by the statutory text, they are consistent with the notion that a patentable process must be ‘new and useful.’ And, in any case, these exceptions have defined the reach of the statute as a matter of statutory stare decisis going back 150 years.” Id. at 3225 (emphases added) (citing Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980) and Le Roy v. Tatham, 55 U.S. (14 How.) 156, 174-175 (1853)).

410 See supra note 193 and accompanying text.

411 See e.g., Invitrogen Corp. v. Biocrest Mfg., L.P., 424 F.3d 1374, 1380 (Fed. Cir. 2005) (attempting to divine the limits of the Metallizing rule); Ubel, supra note 13, at 416 n.48 (asserting that “the Metallizing decision is a non-statutory bar” which is not subject to the “in this country” limitation of § 102(b)).


413 It is perhaps worth noting that Judge Hand’s views of patent law toward the end of his career reflected suspicion if not outright hostility to patent rights. In testimony on patent reform that he gave to the Senate Subcommittee on Patents, Trademarks, and Copyrights in 1955, Judge Hand first “reaffirmed that the Committee sought to ‘consider [patent law] anew from the bottom up.’ With that charge, Judge Hand proceeded to give his advice for patent reform. He ‘suggest[ed] to an incredulous patent bar’ that he would make patents
like copyrights. [He felt] that a man is entitled to what he contributed . . . and unless [others] used what he did, he could not stop it.” Liivak, supra note 7, at 1646-47 (quoting The American Patent System: Hearings Before the Subcomm. on Patents, Trademarks, and Copyrights of the S. Comm. on the Judiciary, 84th Cong. (1956) (testimony of Judge Learned Hand), at 111, 114, 117 and BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT 44 (1967)).