

Spring 2013

## Dissenting State Patent Regimes

Camilla A. Hrdy  
*Berkeley Law*, cahrdy@gmail.com

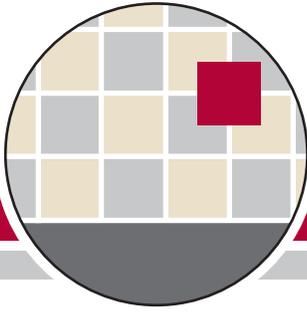
Follow this and additional works at: <https://www.repository.law.indiana.edu/ipt>

 Part of the [Administrative Law Commons](#), [Antitrust and Trade Regulation Commons](#), [Intellectual Property Law Commons](#), [Jurisdiction Commons](#), [Jurisprudence Commons](#), [Law and Politics Commons](#), and the [Science and Technology Law Commons](#)

### Recommended Citation

Hrdy, Camilla A. (2013) "Dissenting State Patent Regimes," *IP Theory*. Vol. 3 : Iss. 2 , Article 2.  
Available at: <https://www.repository.law.indiana.edu/ipt/vol3/iss2/2>

This Article is brought to you for free and open access by the Law School Journals at Digital Repository @ Maurer Law. It has been accepted for inclusion in IP Theory by an authorized editor of Digital Repository @ Maurer Law. For more information, please contact [rvaughan@indiana.edu](mailto:rvaughan@indiana.edu).



## Dissenting State Patent Regimes

Camilla A. Hrdy\*

### I. INTRODUCTION

Of late, few legal institutions have been criticized as much as the United States patent system.<sup>1</sup> Congress recently amended the Patent Act but did little to solve patent law's fundamental problems.<sup>2</sup> Congress will not be able to do so in the near future due to institutional incompetence and lobbying by powerful national interest groups who are heavily invested in the current system and resist reforms that might reduce their profits, or increase their competitors', even though reforms might make the system work better for everyone in the long run.<sup>3</sup> This is one reason patent law scholars who want to see improvements during their lifetimes ignore Congress and instead try to alter the behavior of the federal institutions responsible for administering the Patent Act and adjudicating patents

---

\* Resident Fellow at the Yale Law School Information Society Project. J.D., Berkeley Law; M.Phil. in History and Philosophy of Science, University of Cambridge; B.A. Harvard University. I am grateful to Jack Balkin, Bryan Choi, Heather Gerken, Margot Kaminski, Robert Merges, Lisa Larrimore Ouellette, and the other ISP fellows for invaluable feedback and inspiration.

1. See, e.g., Dan L. Burk & Mark A. Lemley, *THE PATENT CRISIS AND HOW COURTS CAN SOLVE IT* 30-31 (2009) (hereafter "PATENT CRISIS") (discussing recent studies suggesting that "the patent system may actually do more harm than good to innovation, because the assertion and litigation of too many bad patents against companies that make innovative products ends up raising their costs and reducing their innovation more than the existence of those patents spurs new innovation."); JAFFE, A.B. AND J. LERNER, *INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT* 29-31 (Princeton Univ. Press 2004) (contending that the patent system has resulted in a proliferation of low value patents, often used to extract rents in costly litigation or as a bargaining chip for large companies afraid of being sued for royalties by other patent holders).

2. Although it is too soon to tell, the most significant reforms were probably rules facilitating pre and post grant review of patents, a prior commercial use exception, and a change to a first-to-file rather than a first-to-invent system. See Leahy Smith America Invents Act (AIA), Pub. L. No. 112-29 §§ 3, 5, 6, 125 Stat. 284, 285-87, 298-313 (2011).

3. See Burk, *supra* note 1 at 99-100, 106-07 (contending that any patent reform bill is vulnerable to counterproductive special interest lobbying). See also Colleen Chien, *Tailoring the Patent System to Work for Software and Technology Patents* (November 15, 2012), available at <http://ssrn.com/abstract=2176520>. (noting that any attempts at reforming the unitary patent system are stymied by industries that rely on the patent system). On U.S. lobbyists' influence in defining international patent law standards in TRIPS, see Erin K. Bender, *North and South: The WTO, TRIPS, and the Scourge of Biopiracy*, 11 *TULSA J. COMP. INT'L L.* 281, 282 (2003).

on the ground: the U.S. Patent and Trademark Office (the “PTO”), the federal district courts, and the Court of Appeals for the Federal Circuit.<sup>4</sup> However, these types of reforms—which range from tailoring the unitary patent rules to different industries on a case-by-case basis<sup>5</sup> to facilitating the PTO’s efforts in reviewing patent applications, collecting prior art, and reexamining issued patents<sup>6</sup>—cannot fundamentally alter the nature of the rights U.S. patents provide.<sup>7</sup> Moreover, some argue that structural deficiencies lead the PTO and the Federal Circuit to be “pro patent” and to produce rules and decisions that do not comport with the realities of how patents are obtained and used in the market place.<sup>8</sup>

The result is that innovators in a variety of fields believe the current patent system does not serve their interests or the interests of society as a whole. These dissatisfied innovators include software and biotechnology companies that cannot effectively

---

4. See Gideon Parchomovsky & Michael Mattioli, *Partial Patents*, 111 COLUM. L. REV. 207, 219-223 (2009) (summarizing the major categories of proposals for patent law reforms, including institutional reforms and doctrinal reforms).

5. See, e.g., Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1538-58, 1582-1583 (2003) (arguing that federal courts should use ‘policy levers’ in patent law to account for the patent needs of different industries); Jeanne C. Fromer, *Patentography*, 85 N.Y.U. L. REV. 1444, 1447-48 (2012) (arguing that restricting venue in patent cases to defendants’ principal place of business would allow district courts to act as “patent laboratories” for the Federal Circuit and would lead to beneficial tailoring of patent laws to technologies or industries clustered in particular regions).

6. See e.g., Beth Simone Noveck, *Peer to Patent: Collective Intelligence, Open Review, and Patent Reform*, 20 HARV. J. LAW & TECH. 123 (2006) (proposing taking advantage of new technologies to facilitate more expert and community involvement collecting prior art for the PTO); Jeffrey M. Kuhn, *Information Overload at the U.S. Patent and Trademark Office: Reframing the Duty of Disclosure in Patent Law as a Search and Filter Problem*, 13 YALE J. L. & TECH. 90 92-94 (2010-11) (addressing problem of information overload at the PTO and proposing reforms in the way the PTO collects and categorizes prior art); Benjamin Bradford & Sandra Durkin, *A Proposal for Mandatory Patent Reexaminations*, 52 IDEA 135 (2012) (proposing that all patents asserted in litigation be required to undergo mandatory reexamination by the PTO).

7. See, e.g., Chien, *supra* note 3 (noting that the courts are limited in the level of patent tailoring they can effectuate absent a statutory amendment and going on to propose making “tailored, meaningful legislative reform” a top priority).

8. Some scholars contend that the Federal Circuit, which has exclusive subject matter over all patent appeals, has produced an “isolated and sterile jurisprudence that is increasingly disconnected from the technological communities affected by patent law.” For a discussion and citations, see Craig Nard & John Duffy, *Rethinking Patent Law’s Uniformity Principle*, 101 NW. U. L. REV. 1619, 1620-21 (2007). Similar claims have been leveled at the PTO, which some argue has an incentive to grant patents it knows the Federal Circuit will uphold and to allow rather than deny patents. See Jonathan Mosur, *Patent Inflation*, 121 YALE L.J. 470, 472 (2011) (“The Federal Circuit dictates the rules of substantive patent law to the Patent Office via interpretations of the Patent Act. The PTO then grants or denies patents according to those rules.”). Additionally, some contend the PTO is subject to capture by the pro patent communities with whom it regularly interacts. See Burk & Lemley, *PATENT CRISIS*, *supra* note 1, at 106-07 (arguing that the PTO is subject to capture because it regularly interacts with those seeking patents but is distanced from the innovative communities affected by the patents it grants); Clarisa Long, *The PTO and the Market for Influence in Patent Law*, 157 U. PA. L. REV. 1965, 1967 (2009) (suggesting that the PTO has invited capture in order to increase its own stature).

license the patents they need to proceed with their work,<sup>9</sup> small businesses that lack the resources to defend themselves in litigation against experienced patent assertion entities (“PAE’s) with portfolios of un-worked patents,<sup>10</sup> and frustrated scientists who cannot make use of inadequate patent disclosures to make headway in their fields.<sup>11</sup> But innovation in patent law is a two-way street. Despite their ideological objections to patents or their belief that the current system is broken, many of these innovators are also the inventors of patentable inventions. Even if they do not think patents would provide them with necessary protection from competition, they may feel compelled to obtain patents in order to defend themselves in lawsuits filed by other patent holders.<sup>12</sup>

Scholars have recently proposed various ways for “open innovation communities” to restrict their patent rights without opting out of the patent system altogether.<sup>13</sup> For example,

---

9. See Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 *SCIENCE* 698 (1998) (contending that patents create a “thicket” of rights and allow “hold-ups,” preventing effective utilization and transfer of essential knowledge and research tools in the biomedical field). For a useful description of the general problem of “patent gridlock” and citations to critical scholarship, see Michael Mattioli, *Communities of Innovation*, 106 *Nw. U. L. REV.* 103, 105 (2012). See also Christina Mulligan & Tim Lee, *Scaling the Patent System*, *N.Y.U. ANN. SURV. AM. L.* (forthcoming), available at <http://ssrn.com/abstract=2016968> (showing that for categories of inventions that are not “indexable,” such as software, the cost of actually finding patents in order to obtain clearance to practice a particular invention is prohibitively high).

10. See Colleen Chien, *Startups and Patent Trolls*, Santa Clara Univ. Legal Studies Research Paper No. 09-12, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2146251](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2146251) (showing that companies with less than \$100M annual revenue are more vulnerable to lawsuits from PAE’s and that the smaller and more cash-poor the defendant, the more likely it was to suffer in its business operations as a result.) But see Michael Risch, *Patent Troll Myths*, 42 *SETON HALL L. REV.* 457 (2012) (arguing that the conventional wisdom about patent trolls is likely based on anecdotal, but infrequently occurring events and that patents enforced by so-called “trolls” and those who wield them resemble other litigated patents and their owners.).

11. See Lisa Larrimore Oulette, *Do Patents Disclose Useful Information?*, 25 *HARV. J.L. TECH.* 531 (arguing that while some nanotechnology patents do disclose useful information to researchers, the disclosures can and should be improved to ensure that the cost of requiring disclosure is outweighed by the benefits obtained from disclosure). On the conflict between intellectual property rights and norms of science like free access to data, see Arti K. Rai, *Regulating Scientific Research: Intellectual Property Rights and the Norms of Science*, 94 *Nw. U. L. REV.* 77, 90-92 (1999).

12. For instance, open source software companies that do not get patents on their own technology may infringe a substantial number of patents, leaving themselves vulnerable from lawsuits by major proprietary software firms. See Ronald Mann, *Do Patents Facilitate Financing in the Software Industry?*, 83 *TEX. L. REV.* 961, 1010 (2005).

13. Jason Schultz and Jennifer Urban identify three reasons “Open Innovation Communities (OICs)” might decide to opt out of the U.S. patent system: “[p]atents are expensive to acquire and enforce; they are philosophically, culturally, and politically anathema to many OIC members; and even when they appear to be acquired for “defensive” or other altruistic purposes, there has been no guarantee against someone later ‘weaponizing’ them for use in an offensive attack.” Jason Schultz & Jennifer Urban, *Protecting Open Innovation: The Defensive Patent License as a New Approach to Patent Threats, Transaction Costs, and Tactical Disarmament*, 26 *HARV. J.L. TECH.* 1 (2012). Parchomovsky and Mattioli claim the “open source movement and Creative Commons” communities are a testament to a belief among some innovators that “information wants to be free,” which might lead to a decision to select “partial patents.” Parchomovsky & Mattioli, *supra* note 4, at 247. They also cite various monetary benefits that might lead to the choice of partial patents. See *id.* at 249-252.

Gideon Parchomovsky and Michael Mattioli propose that members of “communities of innovation”<sup>14</sup> forego full patent protection and obtain what they call “partial patents”—either “quasi patents,” which are limited to enforcement against direct competitors, or “semi patents,” which require full disclosure of research results related to the patented invention.<sup>15</sup> Taking a different tactic, Jason Schultz and Jennifer Urban suggest that patent holders in “open innovation communities” obtain U.S. patents but voluntarily consign them to a “defensive patent license” (DPL), which gives members a free license to any other member’s patents and prohibits members from launching offensive patent suits against other members.<sup>16</sup>

But any proposal that builds on the existing patent system is a drop of water in an ocean compared to another avenue for reform that has yet to be explored: state patents. Federalism is not just about the economic benefits of decentralized government or protecting some abstract notion of state sovereignty.<sup>17</sup> Federalism is also about protecting individual liberty and freedom of choice.<sup>18</sup> As Heather Gerken argues in her groundbreaking article, *Federalism-All-The-Way-Down*, federalism can provide a powerful forum for minority interests to express their dissent against federal norms by making decisions at the state and local level.<sup>19</sup> “Federalism-all-the-way-down,” Gerken writes, “turns the tables; it allows the usual winners to lose and the usual losers to win.”<sup>20</sup>

Inspired by Gerken’s insights, this Essay proposes that state patent laws—like state laws defining what constitutes a lawful “marriage,”<sup>21</sup> state laws restricting gun

---

14. Parchomovsky’s and Mattioli’s “communities of innovation” include genetics researchers, open source software advocates, and patent sharing collectives dedicated to preserving the environment and public health.

15. See Parchomovsky & Mattioli, *supra* note 4 (proposing a new option to obtain a “quasi patent,” only enforceable against competitors, or a “semi patent,” which requires full information disclosure in exchange for the patent). They contend partial patents can be introduced through private licensing at first and later through federal reforms that make these options available at the granting stage. *Id.* at 210.

16. See Schultz & Urban, *supra* note 13 (recommending adopting a defensive patent license).

17. On the benefits of federalism and the variety of models for discussing federalism, see Heather Gerken, *Our Federalism(s)*, 53 WM. MARY L. REV. 1549, 1552 (2012). See also chapters on federalism and government competition in ROBERT COOTER, *THE STRATEGIC CONSTITUTION* 105-06, 129-30 (Princeton Univ. Press 2000); DENNIS MUELLER, *CONSTITUTIONAL DEMOCRACY* 77-83 (Oxford Univ. Press 1996).

18. See *Bond v. United States*, 131 S. Ct. 2355, 2363 (2011) (“Federalism secures the freedom of the individual.”); *New York v. United States*, 505 U.S. 144, 181 (1992) (“The Constitution does not protect the sovereignty of States for the benefit of the States or state governments as abstract political entities . . . . To the contrary, the Constitution divides authority between federal and state governments for the protection of individuals.”).

19. Heather Gerken, *The Foreword: Federalism All the Way Down*, 124 HARV. L. REV. 4, 8-10, 74 (2010) (arguing that a complete view of federalism must address the role of state decisional units, from juries to school boards, to state agencies, in providing a forum for dissenting view points).

20. See *id.* at 56.

21. The Supreme Court will soon make a decision in *Hollingsworth v. Perry* concerning the constitutionality of California’s Proposition 8, a 2008 ballot initiative that amended the state constitution to allow only opposite-sex couples to marry. See also William Baud, *Beyond DOMA: Choice of State Law in Federal Statutes*, 64 STAN. L. REV. 1371 (2012) (discussing consequences of a Supreme Court decision striking down the Defense Against Marriage Act and giving states autonomy to define what constitutes a marriage for purposes of obtaining federal benefits).

ownership,<sup>22</sup> or state laws respecting women’s rights to get an abortion<sup>23</sup> or illegal immigrants’ rights to enter and remain in the state<sup>24</sup>—could provide a way for patent law’s dissenting inventors to express their objections by choosing to forego U.S. patents and obtain state patents instead (what Gerken calls “dissenting by deciding.”<sup>25</sup>). State patents could provide inventors with something they have not had since New York granted a state patent on the steamboat in 1798: a choice. In fact, in this Essay I will argue that state patents could prove a surprisingly effective way to dissent against federal patent norms.

I proceed as follows. In Part II, I reveal the long history of state and colonial patent laws in America. I show that the Framers and nineteenth century jurists intentionally preserved states’ concurrent authority to grant patents. In Part III, I discuss modern preemption doctrine and show that, even today, U.S. patent law would not preempt state patents so long as they provide equal or lesser rights of exclusivity for the same types of subject matter, and do not substantially diminish inventors’ incentives to file for patents at the federal level. In Part IV I explain why state patent regimes represent a powerful new option for dissenting inventors. The first reason is state patents’ single defining feature as compared to U.S. patents: their limited jurisdiction. State patents necessarily operate only within a granting state’s territory and permit any and all use of the patented invention outside the state.<sup>26</sup> But, because U.S. patent law does not allow patents for inventions that have already been “patented” or “described in a printed publication,” patenting and disclosing at the state level would preclude anyone else from getting a U.S. patent or another state patent for the same

---

22. *See* *United States v. Lopez*, 514 U.S. 549 (1995) (striking down federal law prohibiting possession of firearms on school premises on the ground that Congress lacks authority to regulate in this area under Commerce Clause.). *But see* *District of Columbia v. Heller*, 554 U.S. 570 (2008) (striking down parts of District of Columbia’s strict gun control law based on the Second Amendment).

23. *See* *Roe v. Wade*, 410 U.S. 113 (1973) (holding states cannot prohibit abortions prior to first trimester but can regulate abortions in ways “reasonably related to mother’s health” after first trimester and can ban abortions once fetus reaches “viability,” except when necessary for life or health of mother).

24. *See* *Arizona v. United States*, 132 S. Ct. 2492, 2500 (2012) (upholding a controversial section of Arizona’s new immigration law, S. B. 1070, requiring state police to check the immigration status of persons suspected of being illegal immigrants, stating that “[t]he pervasiveness of federal regulation does not diminish the importance of immigration policy to the States. Arizona bears many of the consequences of unlawful immigration.”).

25. Gerken defines dissenting by deciding as “dissenting through a governance decision rather than private speech or action.” *See* Gerken, *supra* note 19, at 61.

26. *See* *Livingston v. Van Ingen*, 9 Johns 507, 581-583 (N.Y. 1812) (James Kent, C.J.) (describing concurrent state patents that operate only within the granting state’s jurisdiction). *See also* *Goldstein v. California*, 412 U.S. 546, 560-61 (1973) (“When Congress grants an exclusive right or monopoly, its effects are pervasive; no citizen or State may escape its reach. As we have noted, however, the exclusive right granted by a State is confined to its borders. Consequently, even when the right is unlimited in duration, any tendency to inhibit further progress in science or the arts is narrowly circumscribed. The challenged statute cannot be voided for lack of a durational limitation.”).

invention.<sup>27</sup> In this sense, state patents resemble other forms of “defensive disclosure,” such as publishing research results or disclosing one’s invention without demanding exclusive rights to it.<sup>28</sup> Like defensive disclosures, state patents would prevent rivals from obtaining patents and would simultaneously generate valuable “innovation spillovers” for innovators and competitors across the country.<sup>29</sup> But concurrent state patents are unique in that they give inventors the complete exclusive right to their invention in a single state, allowing them to internalize some of the benefits of sales and licensing and protection from local competition. In other words, they prevent any single entity from obtaining *national* control of the invention, spurring competition and productive reuses in other states; but they also give the inventor a “complete and perfect” right within a chosen locality.<sup>30</sup>

The second reason state patents are a powerful option for dissent against federal patent norms is that they are designed and administered by distinct sovereign authorities. Unlike Congress, state governments can start afresh in designing state patent laws and respond to critics of the current system free from the influence of the entrenched interest groups that hinder reforms at the national level. Thus, for instance, states would be free to institute higher standards of patentability or enhanced requirements for disclosure than U.S. patent law. They could offer shorter patent terms for certain types of technology.

Recognizing the risk of legislative capture at the local level, in Part IV.B. I propose that state patents’ limited jurisdiction, along with the limits placed on state patent laws by the local political process, would make state patents of limited utility to patent law’s usual “customers.”<sup>31</sup>

---

27. See 35 U.S.C. § 102 (person shall not receive a patent if invention was “patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent.”) The Leahy-Smith America Invents Act changes U.S. patent law to a first-to-file rule, meaning prior art is determined from the date of filing rather than invention. See Leahy Smith America Invents Act (AIA), Pub. L. No. 112-29 § 3, 125 Stat. 284, 285-87 (2011). See also Robert P. Merges, *Priority and Novelty Under the AIA*, 27 BERKELEY TECH. L.J. 1023 (2012).

28. Publishing results or publicly using or disclosing one’s invention to prevent rivals from patenting is called “defensive disclosure” or “strategic disclosure.” See Douglas Lichtman, Scott Baker, Kate Kraus, *Strategic Disclosure in the Patent System*, 53 VAND. L. REV. 2175, 2175-76 (2000) (“The fact that patent applications are evaluated in light of the prior art gives firms a strategic incentive to create prior art. A firm can publish a journal article or engage in a public demonstration and in that way affect both a rival’s ability to patent a related invention and the rival’s incentive to do so. Perhaps surprisingly, the firm is likely helping its rival and, rose, narrowing or even fully preempting the very patent it seeks.”) As I discuss below, under current preemption doctrine, state patents must be based on the same standards of patentability as U.S. patents and must mandate disclosure to avoid preemption by U.S. patent law.

29. See Mark Lemley & Brett Frischmann, *Spillovers*, 107 COLUM. L. REV. 257, 258 (2007) (defining spillovers as uncompensated benefits that one person’s activity provides to another, and arguing that “innovation spillovers” are positive because they lead to productive reuses of information resources and allow innovation and competition by many minds to proceed). See also discussion and notes in Part III.A, *infra*.

30. See *Livingston*, 9 Johns at 581-82.

31. See Burk & Lemley, *PATENT CRISIS*, *supra* note 1, at 107 (noting that the PTO in the 1990s stated its mission as “to help our customers get patents.”).

Meanwhile, patent law's dissenting minorities only need to convince one state to start granting patents to make an impact. At a minimum, this would force courts, and eventually Congress, to recognize their dissatisfaction with the federal system and might one day force national reforms that benefit society.

## II. THE HISTORIC PRECEDENT

It is commonly accepted that states cannot grant their own patents.<sup>32</sup> However, as I have discussed elsewhere, this presumption of federal supremacy has no basis in history.<sup>33</sup> Prior to ratification of the Constitution in 1788, the American states and colonies regularly used patents as inexpensive and efficient tools to promote private investment in costly innovations that promised benefits for local communities.<sup>34</sup> Historic state patents were quite different from the patents we know today. They did not require an invention to be absolutely new, let alone “nonobvious,” so long as it was not yet practiced in the state and promised local benefits.<sup>35</sup> State patents had local working clauses obligating patentees to develop and deploy their inventions in the state.<sup>36</sup> They had maximum infringement penalties, meaning

---

32. The Intellectual Property Clause (IP Clause) in the U.S. Constitution gives Congress power to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. CONST. art. I, §. 8, cl. 8. The Supreme Court has effectively read into the IP Clause a prohibition on states’ authority to grant “patent like” rights on inventive subject matter. *See Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151-57 (1989). *See also* *Hunter Douglas, Inc. v. Harmonic Design, Inc.*, 153 F.3d 1318, 1334 (Fed. Cir. 1998) (“With respect to field pre-emption, Title 35 occupies the field of patent law, not commercial law between buyers and sellers.”) (citations removed).

33. *See* Camilla A. Hrdy, *State Patent Laws in the Age of Laissez Faire*, 28 BERKELEY TECH. L.J. (forthcoming April 2013), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2134284](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2134284).

34. On state and colonial patent practices, *see* BRUCE BUGBEE, GENESIS OF AMERICAN PATENT AND COPYRIGHT LAW 57–103 (Pub. Affairs Press 1967); Edward Walterscheid, *The Early Evolution of the United States Patent Law: Antecedents (5 Part I)*, 78 J. PAT. TRADEMARK OFF. SOC’Y 615, 616 n.4 (1996).

35. *See* Oren Bracha, *Owning Ideas: A History of Anglo-American Intellectual Property* 100 (June 2005) (unpublished Ph.D. dissertation, Harvard Law School), *available at* [www.utexas.edu/law/faculty/obracha/dissertation/Bracha](http://www.utexas.edu/law/faculty/obracha/dissertation/Bracha) (hereafter “Owning Ideas”) (“The usual procedure [for obtaining a colonial or later a state patent] involved a petition of the would be grantee to the assembly detailing his invention as well as the particular benefits it had to offer to the public and praying exclusivity privileges. In a fashion similar to the early English grants applicants usually detailed specific tangible benefits offered by their inventions such as lower prices, the supply of a scarce commodity or the saving of labor.”). On early patent laws’ emphasis on local working rather than disclosure of new information, *see generally* Mario Biagioli, *Patent Republic: Representing Inventions, Constructing Rights and Authors*, 73 SOC. RES. 1129, 1138 (2006); ROBERT P. MERGES & JOHN F. DUFFY, PATENT LAW AND POLICY: CASES AND MATERIALS 6 (LexisNexis, 4th ed. 2007). *See also* Oren Bracha, *The Commodification of Patents 1600-1836: How Patents Became Rights and Why We Should Care* [Symposium: Intellectual Property at a Crossroads], 38 LOY. L.A. L. REV. 177, 243 (2004) (noting that U.S. patent policy is no longer directly based on promoting the public good in contrast to historic counterparts).

36. *See* the local working clauses described in the state patents catalogued in Bugbee, *supra* note 34, at 84-103. *See also* Bracha, *Owning Ideas*, *supra* note 35, at 103.

that others were free to practice patented technology so long as they paid the requisite fee.<sup>37</sup> Finally, the term lengths and scopes of state patents were specifically designed to approximate the incentives required to bring an invention to market in order to prevent needless proprietizing of valuable technology.<sup>38</sup>

In 1788, the states ratified the U.S. Constitution, which specifically enumerates Congress' power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."<sup>39</sup> Yet in drafting the Intellectual Property Clause the Framers deliberately left states' authority to grant their own patents intact.<sup>40</sup> Even after Congress passed the first Patent Act in 1790, several states, including New York, Connecticut and Pennsylvania, continued to grant patents.<sup>41</sup> When drafting the Patent Act of 1793, the Second Congress did not preempt state authority to grant patents. Instead, it added a provision that required inventors to relinquish any state patents they possessed upon obtaining a U.S. patent for the same invention.<sup>42</sup>

The courts also supported this view. In *Livingston v. Van Ingen*, the New York Supreme Court of New York unanimously upheld a patent on the steamboat that New York granted to Robert Livingston in 1798.<sup>43</sup> As Justice Thompson put it, reflecting the views of the Court and its famous Chief Justice James Kent, denying states the authority to "lend their aid in protecting and patronizing useful improvements in any way they may think proper" would be "degrading to state sovereignty, and unnecessarily relinquishing a power not contemplated by the Constitution."<sup>44</sup> Although the U.S. Supreme Court struck down the steamboat monopoly twelve years later in *Gibbons v.*

---

37. Set infringement penalties accompany most of the state patents catalogued in Bugbee, *supra* note 34, at 84-103.

38. For a canvassing of the extraordinary variety of patents granted in the colonies and states, *see* Bugbee, *supra* note 34 at 57-83 (colonies); 84-103 (states). *See also id.* at 101 (terms oscillated between 7 and 20 years). Notably, it was not until the 1780s that states began to settle on 14-year periods, presumably following the British practice. *See id.* at 93.

39. U.S. CONST. art. I, § 8, cl. 8.

40. *See* U.S. CONST. art. I, § 8, cl. 8. *See also* Goldstein v. California, 412 U.S. 546, 560-62 (1973).

41. *See* state patents described in P. J. Federico, *State Patents*, 13 J. PAT. OFF. SOC'Y 166, 167-68 (1931).

42. *See* Sec. 7, Act of February 21, 1793, 1 Stat. 317 (emphasis added). *See also* EDWARD C. WALTERSCHEID, *THE NATURE OF THE INTELLECTUAL PROPERTY CLAUSE: A STUDY IN HISTORICAL PERSPECTIVE* 437-38 (2002) (describing the 'voidance clause').

43. 9 Johns 507, 581-85 (N.Y. 1812) (upholding New York's power to grant a patent on the steamboat and opining that states possess broad concurrent power to grant patents in their own jurisdictions).

44. *Livingston*, 9 Johns at 566-67 (Thompson, J., concurring). *See also id.* at 581-82 (Kent, C.J.) (arguing that the power to grant patents and copyrights "is a concurrent power which may be exercised by the states, in a variety of cases, without any infringement of the congressional power."), 584 (asserting that longstanding practice in England indicates that "imported improvements, no less than original inventions, ought to be encouraged by patent" and that depriving states of that power would be "leaving the states in a condition of singular and contemptible imbecility.").

Ogden, Chief Justice Marshall did so on narrow grounds, finding there was a direct conflict between New York’s law, preventing Thomas Gibbons from navigating steamboats on the Hudson River, and a federal coasting license permitting him to do so. But Marshall declined to address the issue of concurrent state patent power, even though this is where the attorneys spent a large portion of their time at oral argument.<sup>45</sup> Throughout the nineteenth century, courts and important commentators continued to cite favorably to *Livingston*.<sup>46</sup>

### III. MODERN PREEMPTION DOCTRINE

In the modern era, the Supreme Court’s stance on preemption of state intellectual property laws has been inconsistent, depending on the type of subject matter protected and the form of protection states provide.<sup>47</sup> In *Goldstein v. California*, the Court upheld California’s authority to prohibit pirating sound recordings, even though this went beyond the protections afforded by U.S. copyright law.<sup>48</sup> To support its holding that states can pass their own copyright laws, the Court pointed out that states had once used their own *patent* laws in order to “promote those portions of science and the arts which were of local importance.”<sup>49</sup> The Court stated:

Whatever the diversity of people’s backgrounds, origins, and interests, and whatever the variety of business and industry in the 13 Colonies, the range of diversity is obviously far greater today in a country of 210 million people

---

45. 22 U.S. 1, 221 (1824) (Marshall, C.J.) (striking down the steamboat monopoly under the Supremacy Clause, which interfered with steamboat travel between New York and New Jersey and conflicted with a federal coasting license, but declining to overrule Kent’s opinion on the constitutionality of state patents).

46. *See* *Patterson v. Kentucky*, 97 U.S. 501, 508-509 (1878) (upholding state powers to prohibit sale of patented articles and citing Kent’s opinion in *Livingston* that the IP Clause was “fully satisfied” so long as states did not interfere with inventors’ exclusive rights in their ideas). *See also* Joseph Story, *Commentaries on the Constitution of the United States*, Book III, Ch. XIX, 79 (Boston, 4th ed., 1873) (agreeing with Kent that states can concurrently grant patents to introducers and “possessors” of technology) (citing *Livingston* and *Gibbons*).

47. *See Kewanee*, 416 U.S. at 490-93 (1974) (upholding state authority to protect trade secrets). *But see Bonito*, 489 U.S. at 150-65 (1989) (prohibiting Florida from using “patent like rights” to protect unpatented boat hulls from copying using the plug molding process); *Sears, Roebuck Co. v. Stiffel and Co.*, 376 U.S. 225, 232 (1964) (state unfair competition law could not prevent copying of unpatentable pole lamp); *Compco Corp. v. Day-Brite Lighting, Inc.*, 376 U.S. 234, 238 (1964) (state unfair competition law could not prevent copying of unpatentable lighting fixture). *See also* Jeanne Fromer, *The Intellectual Property Clause’s Preemptive Effect* in *INTELLECTUAL PROPERTY AND THE COMMON LAW* (Shyamkrishna Balganeshe ed., forthcoming 2013), available at <http://ssrn.com/abstract=2194755> (summarizing the Court’s current preemption case law and arguing that the Court’s stance to preemption in these cases can effectively be read in light of the IP Clause’s function and purpose).

48. *Goldstein*, 412 U.S. 546, 551-62 (1973).

49. *See Goldstein*, 412 U.S. at 557 (“The patents granted by the States in the 18th century show...a willingness on the part of the States to promote those portions of science and the arts which were of local importance.”).

in 50 States. In view of that enormous diversity, it is unlikely that all citizens in all parts of the country place the same importance on works relating to all subjects.<sup>50</sup>

The *Goldstein* Court's conclusion that the Constitution itself does not divest states of the power to grant intellectual property rights has never been overruled.<sup>51</sup>

Nonetheless, in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, the Court, ostensibly applying statutory preemption principles, unanimously struck down a Florida law that prohibited competitors from using the "direct molding" process to copy unpatented boat hulls.<sup>52</sup> According to the Court, if states were free to provide "patent like" protection for subject matter of their choosing they might become a "significant competitor to federal patent laws, offering investors similar protection without the *quid pro quo* of substantial creative effort required by the federal statute."<sup>53</sup> And inventors would consequently be less inclined to develop inventions meeting Congress' "rigorous requirements of patentability."<sup>54</sup> At the same time, the Court declared, states might be tempted to "afford patent-like protection to particularly favored home industries, effectively insulating them from competition from outside the State."<sup>55</sup>

In a larger article on this subject, I challenge the Court's presumption that only Congress has sole authority to determine the terms and criteria for patentability.<sup>56</sup> I assert that competing state patent laws would not undermine U.S. patent law's objectives to promote innovation and disclosure of new information, and would produce an important alternative scheme of incentives for private companies to invest in innovations of local value. In addition, by granting their own patents, states would generate troves of valuable information about the effects of patents in the marketplace and could begin to experiment with designing patent laws that work more effectively. I argue that, instead of entirely preempting states from granting "patent like rights" on their own terms and conditions, the Court should apply a more refined preemption doctrine under the dormant Commerce Clause, just like it does when addressing other types of state business incentives.<sup>57</sup> I recommend a simple framework that balances

---

50. *Id.* at 557-58.

51. *See Bonito*, 489 U.S. at 165.

52. *See id.* at 151-65.

53. *See id.* at 160-61.

54. *See id.* at 160-61.

55. *Id.* at 163.

56. *See* Camilla Hrdy, *State Patents as a Solution to Underinvestment in Innovation*, 62 KAN. UNIV. L. REV. (forthcoming 2013), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2229274](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2229274).

57. *See, e.g.*, *West Lynn Creamery, Inc. v. Healy*, 512 U.S. 586 (1994) (invalidating tax and subsidy scheme favoring in-state producers of milk); *Carbone, Inc. v. Town of Clarkstown*, 511 U.S. 383 (1994) (invalidating law forcing state residents to deliver their waste to a private in-state waste transfer facility and authorizing facility to charge tipping fees over market rate).

the putative local benefits of a particular state patent against the restrictions placed on competition and interstate commerce, and the feasibility of less restrictive financing measures.

However, for purposes of this Essay, the state patents I describe here do not run afoul of federal preemption doctrine at all.<sup>58</sup> To satisfy the Court's current preemption benchmarks, state patents cannot create a "substantial risk" that holders of patentable inventions will choose to apply for state instead of federal patents.<sup>59</sup> This means states cannot grant patents for subject matter that is in the public domain,<sup>60</sup> or for classes of subject matter that cannot be patented under the Patent Act (e.g. mathematical equations).<sup>61</sup> States cannot grant patents for inventions that do not meet the major

---

58. State patents also do not run afoul of TRIPS. TRIPS is a minimum standards agreement for nation states that join the WTO, and the United States already meets TRIPS's requirements by implementing the U.S. Patent Act. Therefore, so long as state patents are equally available to all citizens of WTO member nations, state patents that do not meet TRIPS's minimum standards cannot be subject to enforcement actions under the treaty. See Yoshifumi Fukunaga, *Enforcing TRIPS: Challenges of Adjudicating Minimum Standards Agreements*, 23 BERKELEY TECH. L.J. 867, 897-98 (2008). With thanks to Margot Kaminski for pointing this out.

59. "If a State, through a system of protection, were to cause a *substantial risk* that holders of patentable inventions would not seek patents, but rather would rely on the state protection, we would be compelled to hold that such a system could not constitutionally continue to exist." *Kewanee*, 416 U.S. at 489 (emphasis added). In *Kewanee* the Court held trade secret laws do not create a "substantial risk" of competing with U.S. patents due to the Court's conclusion that the inventor of an invention "which the owner believes to meet the [U.S.] standards of patentability," *id.* at 489, would not choose to rely on trade secret rather than patent protection because trade secret laws allow reverse engineering and independent creation. *Id.* at 489-90. ("While trade secret law does not forbid the discover of the trade secret by fair and honest means, e.g. independent creation or reverse engineering, patent law operates 'against the world,' forbidding any use of the invention for whatever purpose for a significant length of time... The possibility that an inventor who believes his invention meets the standards of patentability will sit back, rely on trade secret law, and after one year of use forfeit any right to patent protection is remote indeed."). In contrast, in *Bonito*, the Court struck down Florida's anti-molding statute because of the possibility that Florida's "scheme" would "become a significant competitor to the federal patent laws, offering inventors similar protection without the *quid pro quo* of substantial creative effort required by the federal statute. *Bonito*, 489 U.S. at 161. The prospect of all 50 States establishing similar protections for preferred industries without the rigorous standards of patentability prescribed by Congress could pose a substantial threat to the patent system's ability to accomplish its mission of promoting progress in the useful arts." *Id.*

60. The Court has stated that a policy of federal patent law is that material which is "in the public domain cannot be removed therefrom *by action of the States*." *Kewanee*, 416 U.S. at 481, n. 10 (emphasis added) (citing *Lear, Inc. v. Adkins*, 395 U.S. 653, 668 (1969)) ("Federal laws require that all ideas in general circulation be dedicated to the common good unless they are protected by a valid patent."). In *Bonito*, 489 U.S. 141, the Court struck down a state law that prohibited "the entire public from engaging in a form of reverse engineering of a product in the public domain." *Id.* at 160.

61. The Court has announced repeatedly that "States may not offer patent-like protection to intellectual creations which would otherwise remain unprotected as a matter of federal law." *Bonito*, 489 U.S. at 156 (citing *Sears*, 376 U.S. 225; *Compco* 376 U.S. 234). Thus, states cannot grant patents for "products of nature" or "abstract ideas." See 35 U.S.C. § 101.

federal criteria for inventiveness and utility or that do not mandate disclosure sufficient to allow replication of the invention by one of ordinary skill in the art.<sup>62</sup> States also probably cannot offer patents with longer terms.<sup>63</sup>

But state patents that afford the same or lesser rights of exclusivity as U.S. patents—just in a smaller jurisdiction—survive preemption because they do not realistically compete with U.S. patents as economic incentives.<sup>64</sup> There is nothing unconstitutional about states granting patents on precisely the same terms and conditions as Congress,<sup>65</sup> or state patents that utilize *higher* standards of patentability or that *reduce* the level of protection that U.S. patents afford.<sup>66</sup> These types of rights would not lead the majority, or even a significant number, of inventors to choose state rather than U.S. patents.<sup>67</sup> They would not, to borrow Jeanne Fromer’s phrase, “upset the balance between creator and public entitlements” created by Congress in the Patent Act.<sup>68</sup> Thus, they would not be preempted.

---

62. See *Bonito*, 489 U.S. at 161 (striking down Florida statute that prevented using direct molding to copy boat hulls in part because of the risk that the Florida “scheme” would become a “significant competitor” to federal patent law and offer “similar protection *without the quid pro quo of substantial creative effort required by the federal statute.*”) (emphasis added). The Court defined the minimum federal requirements as being (1) novelty, (2) nonobviousness, (3) utility, and (4) disclosure. *Id.* at 150 (“The applicant whose invention satisfies the requirements of novelty, nonobviousness, and utility, and who is willing to reveal to the public the substance of his discovery and “the best mode ... of carrying out his invention,” is granted “the right to exclude others from making, using, or selling the invention throughout the United States,” for a period of 17 years.”) (citing relevant sections of Title 35). See also *Sears*, 376 U.S. at 231 (“Obviously, a state could not, consistently with the Supremacy Clause of the Constitution, extend the life of a patent beyond its expiration date or give a patent on an article which lacked the level of invention required for federal patents.”) See also *Compco*, 376 U.S. at 238 (holding state unfair competition law could not prevent copying of unpatentable lighting fixtures and repeating *Sears*’ statement that “when an article is unprotected by a patent or a copyright, state law may not forbid others to copy that article.”).

63. See Fromer, *supra* note 47, at 18. For the Court’s views on the impermissibility of perpetual or overly long term lengths see *Bonito*, 489 U.S. at 159 (“The Florida scheme offers this protection for an unlimited number of years to all boat hulls and their component parts, without regard to their ornamental or technological merit.”) See also *Sears*, 376 U.S. at 232 (striking down state trademark law that prevented copying of unpatentable pole lamps in part because of the risk that “[s]tates could allow perpetual protection to articles too lacking in novelty to merit any patent at all under federal constitutional standards.”).

64. See *Kewanee*, 416 U.S. at 490-91. See also *Bonito*, 489 U.S. at 160-61.

65. Bruce Bugbee has also observed that states could grant patents on *precisely the same* terms and conditions as Congress. See Bugbee, *supra* note 34, at 102 n. 53 (“A Federal grant did not conflict with a state award per se: the two could exist concurrently, with overlapping jurisdictions, so long as their provisions did not conflict (and there is a general belief that states could legally grant patents today under the same conditions).”).

66. See *Bonito*, 489 U.S. at 160. See also *Sears*, 376 U.S. at 232.

67. *Kewanee*, 416 U.S. at 489. See also *Bonito*, 489 U.S. at 160-61.

68. Jeanne Fromer proposes that the Court’s current preemption case law can be read in light of the IP Clause. Fromer, *supra* note 47, at 1. She contends that the IP Clause preempts state laws when they (1) are within the IP Clause’s preemptive scope (i.e., their purpose is “to promote the Progress of Science and useful Arts” and they do so “by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”) and (2) they upset the balance between creator and public entitlements mandated by the IP Clause and effectuated in a particular way by federal law. *Id.* at 20.

#### IV. DISSENTING STATE PATENT REGIMES

My purpose in this Essay is to examine the viability of state patent regimes as an outlet of dissent for inventors who do not want to obtain U.S. patents due to ideological disagreement with federal patent policy or based on a general belief that information should be shared more freely than it presently is.<sup>69</sup> I conclude that state patents could prove a surprisingly effective way for these dissenters to object to federal patent law and a powerful new avenue for patent law reform.

##### A. A New Option for Dissenting Inventors

Inventors of patentable inventions currently have three basic options: disclose the invention, keep it secret, or get a U.S. patent.<sup>70</sup> State patents add an additional option to this mix: inventors can curtail, but not completely give up, their affirmative right of exclusivity by restricting that exclusivity to the territory of a single state. Meanwhile, consumers, innovators and potential competitors outside the state are free to copy and use the invention; and no one else can obtain a U.S. patent on the invention once it has been patented and disclosed at the state level.<sup>71</sup> For example, consider a nanotechnologist based in New York, which has a thriving nanotechnology sector connected to local universities and research institutions.<sup>72</sup> She has invented a new technique for isolating a nanomaterial with a variety of potential medical uses, and is deciding whether to apply for a U.S. patent. She disagrees with U.S. patent law's policy of allowing federally funded researchers to obtain private ownership of their work, and she believes patents generally frustrate research in her field. On the other hand, she needs to fund her research and has been instructed that it is easier to get grants for research that is patented and that can eventually generate licensing

---

69. Scholars like Parchomovsky and Mattioli and Urban and Schultz, whose work I mentioned in the Introduction, have identified several 'open' communities that value information sharing and free use of information. Perhaps the most powerful example comes from the software industry where many open source developers refuse to obtain patents simply to make a political statement. *See* Mann, *supra* note 12, at 1011 ("the reluctance of the open source community to obtain patents is largely a political statement, not something necessary to the development of the improvements in functionality that the movement promises.").

70. *See Kewanee*, 416 U.S. at 489-90 (describing choice of patent versus trade secret). *See also Bonito*, 489 U.S. at 149 ("Once an inventor has decided to lift the veil of secrecy from his work, he must choose the protection of a federal patent or the dedication of his idea to the public at large.").

71. *See* 35 U.S.C. § 102 (a person shall not receive a patent if the invention was "patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent."). The Leahy-Smith America Invents Act changes U.S. patent law to a first-to-file rule, meaning prior art is determined from the date of filing rather than invention. *See* Leahy Smith America Invents Act (AIA), Pub. L. No. 112-29 § 3, 125 Stat. 284, 285-87 (2011). *See also* Merges, *supra* note 27.

72. *See Growing Innovation Clusters for American Prosperity: Summary of a Symposium*. (Washington, DC: The National Academies Press, 2011), [http://sites.nationalacademies.org/PGA/step/PGA\\_043846](http://sites.nationalacademies.org/PGA/step/PGA_043846).

fees.<sup>73</sup> She has worked hard on her invention for many years and is reluctant to give up any ownership stake in it.<sup>74</sup>

What is this patent dissenter to do? She could get a U.S. patent and thereafter enter a DPL with likeminded patent holders in the field, consigning her patent to purely defensive use.<sup>75</sup> She could contractually limit her rights to a quasi patent, which could only be enforced against direct competitors. Or she could choose to convert her patent into a semi patent, which would require her to disclose all information related to her invention.<sup>76</sup> But I suggest that obtaining a state patent presents a far more powerful avenue for dissent than any proposal that relies or builds upon U.S. patent law. There are two key reasons for this.

### 1. Innovation Spillovers

First, like other forms of “defensive disclosure”—publishing results or revealing the invention in order to prevent rivals from obtaining a patent on it<sup>77</sup>—state patents produce valuable “innovation spillovers” because they give everyone outside the granting state’s jurisdiction the opportunity to copy and use the invention without mandating financial compensation for the inventor.<sup>78</sup> However, unlike ordinary defensive disclosures, obtaining

---

73. The Bayh-Dole Act allows patenting government-funded research. *See* Rai, *supra* note 11, at 109. However, many argue that the new “patent and profit” environment conflicts with norms of science favoring free sharing of research. *See, e.g.,* Rai, *supra* note 11, at 109; Joshua R. Nightingale, *The Researcher Rat’s Culture and Ease of Access to the Publication Lever: Implications for the Patentability of University Scientific Research*, 113 W. Va. L. Rev. 521, 549-50 (2011) (noting the emergence of a “patent and profit” research environment since Bayh-Dole and suggesting that “the competitive nature of the grant funding process have all led universities to explore commercial exploitation of their research.”); Larimore Ouellette, *supra* note 11, at 573 (describing results of a survey designed to determine the perceived utility of patent disclosures in nanoscience and noting that “some respondents questioned the role of patents in the open scientific culture, suggesting that ‘a strong focus on a patenting culture in academia can impede, rather than enhance, innovation.’”).

74. One of the historic justifications for patents is the notion that inventors have “natural rights” in their inventions and should be able to rely on the government to secure those rights. *See* Adam Mossoff, *Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent “Privilege” in Historical Context*, 92 CORNELL L. REV. 953, 968-969 (2007).

75. *See* Schultz & Urban, *supra* note 13.

76. *See* Parchomovsky & Mattioli, *supra* note 4, at 219-223.

77. *See* Lichtman, *supra* note 28, at 2175-76 (“The fact that patent applications are evaluated in light of the prior art gives firms a strategic incentive to create prior art. A firm can publish a journal article or engage in a public demonstration and in that way affect both a rival’s ability to patent a related invention and the rival’s incentive to do so. Perhaps surprisingly, the firm is likely helping its rival and, rose, narrowing or even fully preempting the very patent it seeks.”).

78. U.S. patents produce spillovers (uncompensated benefits that one person’s activity provides to another) because they disclose information to the public, which the public can use to invent around the invention during the patent term and to freely innovate and compete once the patent expires. *See* Lemley & Frischmann, *supra* note 29, at 290-91. However, state patents produce more spillovers than U.S. patents because the public can copy and use the invention without restrictions in all other states even during the patent term.

a state patent is not purely a defensive strategy at all. Like a U.S. patent, a state patent entitles the inventor to an affirmative right of exclusivity that is “complete and perfect” within the granting state’s jurisdiction.<sup>79</sup> This includes the right to obtain damages for patent infringement and the right to demand an injunction to halt infringing activity within the granting state.<sup>80</sup> Similar to quasi patents, which permit offensive use only against direct competitors, state patents allow inventors to internalize some, but not all, of the benefits of their inventions.<sup>81</sup> But the state patent is unique among any proposal that relies on U.S. patent rights because it does not restrict copying or use *at all* outside the state, permitting problem solving and decision making by other minds to proceed without restrictions.<sup>82</sup>

For instance, in the case of our conflicted nanoscientist, if she obtains a U.S. patent on her early stage research tool, this would potentially hinder second generation innovators from making further progress in the field, whether due to transaction costs that prevent efficient licensing,<sup>83</sup> or due to second generation innovators’ inability to capture sufficient revenues to justify developing second generation technologies.<sup>84</sup> Even if she voluntarily

---

79. *Livingston*, 9 Johns at 581-582 (James Kent, C.J.) (positing a concurrent state patent system).

80. The U.S. Patent Act mandates damages to compensate for an infringement. 35 U.S.C. § 284 (“Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.”) It also allows courts to grant injunctions in some circumstances. *See id.* at § 283 (“The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.”).

81. *See* Parchomovsky & Mattioli, *supra* note 4.

82. On the benefits of many minds working on a technological problem, *see* Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 Colum. L. Rev. 839, 872-75 (1990) (arguing that narrow patent rights are superior to an early broad patent in fields conducive to cumulative innovation); Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. Econ. Persp. 29, 30 (1991) (“[F]irms other than the first innovator should participate in development of second generation products. Since the first innovator might not have expertise in all applications, more second generation products are likely to arise if more researchers have incentives to consider them.”). *See also* Lemley & Frischmann, *supra* note 29, at 281 (“There is no reason to believe that ownership of an idea by any one individual will best encourage [productive reuse of ideas.] Innovation is cumulative and is generally spurred by decentralized competition. . . . If a company can lock up an invention entirely, the company will have suboptimal incentives to improve it. The owner may (or may not) improve on the invention, but no one else will be in a position to do so.”).

83. Patent licensing can be hindered by a variety of transaction costs, especially in cases where a pioneering invention is not as profitable as subsequent derivations competing in the same market. *See, e.g.*, Robert Merges, *Intellectual Property Rights and Bargaining Breakdown: The Case of Blocking Patents*, 62 TENN. L. REV. 75, 84-89 (1994) (describing several real and hypothetical examples of bargaining breakdowns between holders of blocking patents due to factors such as erroneous valuations of the future value of the pioneer technology or irrational motives such as the inventor’s pride in her invention, leading her to believe she is entitled to higher profits than might actually be warranted).

84. *See* Scotchmer, *supra* note 82, at 34-35 (“[T]he ‘natural’ system of property rights—requiring every later innovator to license any underlying technology – will on average give deficient incentives for outside firms to develop second generation products. This is because the second product infringes and therefore the second innovator must transfer some of the innovator’s revenue to the first innovator by licensing.”).

agreed to commit her U.S. patent to purely defensive use in a DPL, the nanoscientist would be entitled to end this arrangement at any time by leaving the licensing agreement and would still possess the legal right to enforce her U.S. patent until the end of its term.<sup>85</sup> What if her discovery proves more profitable than she ever imagined? Will she be able to resist the temptation to require future infringers across fifty states to pay royalties? State patents simply do not give patent holders this option. They are resistant to over-centralization of innovation, even as they serve the primary purpose of patent law to promote the progress of the useful arts by securing inventors' exclusive rights in their patentable discoveries—albeit within a more limited jurisdiction.<sup>86</sup> In some cases, such as with technologies that must be practiced in a particular state or that serve mainly a local market, a state-wide right might actually provide sufficient financial compensation.<sup>87</sup> In other cases, the unique opportunity to express dissent to U.S. patent law's norm of full propertization, and the unique opportunity for patent law reform that I am about to discuss, may be incentive enough.

## 2. A New Avenue for Patent Law Reform

The second reason state patents are an attractive option for dissenting inventors is that they open a new avenue for patent law reform that does not demand action from Congress or any branch of the federal government. Unlike other proposals that build on existing U.S. patent law, state patents would give dissenting inventors an opportunity to shape patent law from the bottom up, outside the confines of the national political economy and free from the influence of the usual pro patent lobbies.<sup>88</sup> By choosing to patent only in states that

---

85. The DPL is a voluntary contractual arrangement that does not affect the U.S. patent holder's property right. The DPL's terms provide that "[i]f a DPL user wishes to stop offering her patents under the DPL, she may do so, but only with six months' notice to existing DPL users and future parties. She must continue to grant, and may not revoke, any licenses that are in place before the end of the notice period. Once she stops offering the DPL, other DPL users are free to revoke their licenses to her at will, but the DPLs she granted previously remain in effect." See Schultz & Urban, *supra* note 13, at 39-40.

86. See U.S. Const. Art. I, § 8, Cl. 8. For the argument that patents risk over-centralizing the process of innovation, see Tim Wu, *Intellectual Property, Innovation, and Decentralized Decisions*, 92 VA. L. REV. 123, 126 (2006) (discussing earlier work by Merges and Nelson).

87. As Lemley and Frischmann point out, inventors do not always need to capture the full social value of their inventions in order to have sufficient incentive to create. "Society," they write, "needs merely to give them enough incentive to cover the fixed costs of creation that their imitators will not face. Any greater return is at best a mere wealth transfer and at worst wasteful – it doesn't encourage more innovation in the field, and it may actually interfere with downstream innovation and distort behavior in the market. Thus, while we need some ex ante incentive to innovate, we don't need (and don't particularly want) full internalization of the benefits of an invention." Lemley & Frischmann, *supra* note 29, at 276.

88. Gridlock at the federal level is one reason that some scholars "challenge the conventional wisdom of patent reform that looks primarily to the top—Congress and the Supreme Court—for changes." See, e.g., Xuan-Thao Nguyen, *Dynamic Federalism and Patent Law Reform*, 85 IND. L. J. 449, 451 (2010) (arguing that a "local patent-reform process," involving participation from federal district court judges and local bar associations, has improved the procedures for litigating patents and alleviated the immense costs of patent litigation.). See also Gerken, *supra* note 19 (arguing that by engaging in decision making in state and local institutions, from juries to school boards to state agencies, minority groups can find a "muscular form of voice" for their dissenting view points).

adopt their terms, dissenting inventors could force states to institute patent rules that reflect their values of open innovation and free sharing of information, and that address the major problems currently afflicting the patent system.

For example, to reduce the number of unnecessary patents and the deadweight loss that occurs when a patent is granted for an invention that would have been developed anyway, states could supplement (though probably not replace)<sup>89</sup> the federal standard for “nonobviousness” with a more refined analysis that asks whether the invention would have been discovered and disclosed, or as rapidly, without the incentive of a patent.<sup>90</sup> States could also tailor patent terms to specific industries and technologies—for instance, offering shorter terms in fast-moving industries where the cost of invention is low, as Judge Richard Posner suggests.<sup>91</sup> To tackle the problem of PAEs (so-called “patent trolls”), states could reinstitute the local working requirements that characterized historic state and colonial patents.<sup>92</sup> To address the distinct issue of “patent thickets”—where licensing requirements create

---

89. States would also have to require that the invention satisfy the federal standard for nonobviousness to survive preemption. *See* 35 U.S.C. § 103 (A U.S. patent is not allowed “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”) *See also* *Bonito*, 489 U.S. at 160-61 (describing dangers of states granting patents for inventions that do not meet the “rigorous” federal standards of patentability).

90. *See* Michael Abramowicz & John F. Duffy, *The Inducement Standard of Patentability*, 120 *YALE L.J.* 1590, 1593-96, 1625-26 (2011) (arguing that courts should revitalize an “inducement standard” of nonobviousness and apply a structured economic inquiry into the economic incentives that would exist without the patent, on the one hand, and the actual or expected economic costs of developing and commercializing the invention, on the other). *See also* Tun-Jen Chiang, *A Cost-Benefit Approach to Patent Obviousness*, 82 *ST. JOHN’S L. REV.* 39 (2008) (proposing a new test for patentability based not on ingenuity but on whether the patent reward creates more benefits than costs with respect to the timing of when the invention is made); Robert P. Merges, *Uncertainty and the Standard of Patentability*, 7 *HIGH TECH. L.J.* 1, 1-4, 43-55 (1993) (arguing that patent law’s nonobviousness test “seeks to reward inventions that, viewed prospectively, have a low probability of success”).

91. *See* Richard Posner, *Why There Are Too Many Patents in America*, *THE ATLANTIC*, July 12, 2012, <http://www.theatlantic.com/business/archive/2012/07/why-there-are-too-many-patents-in-america/259725/> *See also* Eric E. Johnson, *Calibrating Patent Lifetimes*, 22 *SANTA CLARA COMPUTER HIGH TECH. L.J.* 269 (2006) (suggesting tailoring patent terms lengths).

92. As noted above, essentially all of the state patents recorded historically had local working clauses and minimum infringement penalties. *See* the local working clauses described in the state patents catalogued in Bugbee, *supra* note 34, at 84-103. *See also* Bracha, *Owning Ideas*, *supra* note 35, at 103. For modern proposals for working requirements, *see, e.g.*, Ted Sichelman, *Commercializing Patents*, 62 *STAN. L. REV.* 341, 346, 400-08 (2010) (proposing a new commercialization patent, which can be obtained when a traditional patent goes uncommercialized after three years, and which grants the exclusive right to exclude equivalent products and an affirmative right to use equivalent products, including immunity from suits by, as well as the obligation to commercialize the invention, for a limited term, e.g., around five to eight years, and limiting the patent owner to a low but “fairly reasonable” fixed royalty rate). *See also* Andy Kessler, *Patent Trolls vs. Progress*, *WALL ST. J.*, April 13, 2012, at A13 (proposing introducing local working requirements into U.S. patent laws to prevent inefficient rent seeking by non-manufacturing patent owners, sometimes called “trolls”).

prohibitive transaction costs for researchers in fields with many disperse patent rights—states could create efficient online compulsory licensing systems.<sup>93</sup> Finally, to promote information sharing, states could institute better disclosure requirements to ensure that patent disclosures are actually useful to future researchers.<sup>94</sup> Once states settle upon reforms that work, Congress could build on the states’ innovations and enact analogous reforms at the federal level.

### *B. A Race to the Bottom?*

The natural objection to my appeal to federalism is that exposing patent law to intergovernmental competition will not lead to a race to the top, but a race to the bottom.<sup>95</sup> As Professor Gerken writes, localism is a “double edged sword.”<sup>96</sup> There is no guarantee that the multi-national corporations that dominate reforms at the federal level will not “oppress the dissenters within their own dissenting community,” using their money and influence to demand state patents that serve their interests and block reforms designed to enhance open innovation and information sharing.<sup>97</sup> Cash-strapped state governments, motivated by the chance to obtain filing fees and attract wealthy investors into the state, might cave to their demands and offer worse patents than we have now. Imagine a thirty-year patent on an isolated DNA molecule found unpatentable by the Supreme Court, or fifty state patents covering the touchscreen of an iPhone.<sup>98</sup>

I have two responses to this concern. First, as Justice Kent recognized in 1812, state patents are, like any other legislative act, subjected to multiple levels of review by elected state legislators.<sup>99</sup> In theory, the political process should prevent state legislators from

---

93. On patent thickets *see supra* note 10.

94. *See* Larrimore Oulette, *supra* note 11, at 591-96 (arguing that patent disclosures can be made more effective and providing various suggestions for accomplishing this, such as requiring patent holders to answer other researchers’ questions about reproducing the invention).

95. For analogy, some scholars argue that interstate state competition in corporate law has led to a “race to the bottom,” in which states compete to attract incorporation fees by passing laws that are overly favorable to management but that threaten shareholders’ interests. *See* Note, *The Case for Federal Threats in Corporate Governance*, 118 Harv. Law. Rev. 2726, 2727-31 (2005).

96. *See* Gerken, *supra* note 19, at 65.

97. *See id.* *See also*, Christopher T. Giovinazzo & Ryan T. Moore, *The Distortion Gap: Policymaking under Federalism and Interest Group Capture*, *Publius* (Spring 2012) 42(2): 189-210 (April 2012) (suggesting that smaller government units are more prone to regulatory capture by small, concentrated industries than large ones.).

98. The Supreme Court will soon decide whether an isolated DNA molecule implicated in medical diagnostic methods can be patented under federal patent law. *See* *Association for Molecular Pathology v. Myriad Genetics*, 133 S. Ct. 694 (2012).

99. In *Livingston*, Justice Kent adopted a political process theory of preemption, stating that because state patents are legislative acts that have undergone review by various levels of state government, they should be subjected to minimal review by courts and subject to an “extremely strong” presumption of validity. 9 Johns at 572.

granting patents that do not serve the public interest.<sup>100</sup> Unlike U.S. patents, whose effects are diffused across national markets and difficult to identify, overly long or broad state patents would have direct effects on state residents.<sup>101</sup> They would raise the price of patented goods and services for local consumers and create unworkable transaction costs for local businesses. Thus, in an ideal world, state legislators who managed to grant worse patents than the PTO would simply get voted out of office. In cases where the political process broke down and states granted patents without attention to the social harms created for in-state or out-of-state residents, federal courts would have a responsibility to intervene based on their powers of judicial review and dormant Commerce Clause jurisprudence.<sup>102</sup>

For those who are skeptical that the local political process actually reflects voters' interests, I suggest that a second factor helps insulate state patents from capture by patent law's usual "customers": their limited jurisdiction.<sup>103</sup> No matter how long or broad a state patent is, the exclusivity it affords will necessarily be limited to the granting state's jurisdiction. Buying up patents from multiple states would be costly and inconvenient, just as it was in the 1780s before U.S. patents were available.<sup>104</sup> Most inventors would always prefer patents that give them as broad a jurisdiction as possible. This means the best an inventor could hope for is a state patent on the same invention as a U.S. patent, for the same or a lesser period of time, but in a smaller jurisdiction. Otherwise, the patent would be invalid and unenforceable under the Supremacy Clause.<sup>105</sup> Thus, the most likely proponents of state patents will not be multi-national corporations with technology they plan to market across state lines and with plentiful resources to spend on lobbying. They will be small companies and independent inventors with highly concentrated local markets, or they will

---

100. On political process protections on state tax laws, see Winkfield F. Twyman, Jr., *Losing Face but Gaining Power: State Taxation of Interstate Commerce*, 16 VA. TAX REV. 347 (1997).

101. One of the fundamental problems in patent law reform is a lack of information about the effects of U.S. patents on the marketplace. See discussion and citations in Anna B. Laakmann, *An Explicit Policy Lever for Patent Scope*, 19 MICH. TELE. TECH. L. REV. 43, 51 (2012).

102. The dormant Commerce Clause creates important safeguards against state patents that appear to be the result of special interest lobbying or that unduly restrict competition and interstate commerce. See cases cited in note 58. See also John Hart Ely, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* (1980) (positing oft-cited theory of judicial review based around the notion that the role of courts is to preserve the integrity of democracy and the rule of law and ensure adequate representation in the political process).

103. See Burk & Lemley, *PATENT CRISIS*, *supra* note 1, at 106-107.

104. See *Goldstein*, 412 U.S. at 556 ("The difficulty noted by Madison relates to the burden placed on an author or inventor who wishes to achieve protection in all States when no federal system of protection is available. To do so, a separate application is required to each state government; the right which in turn may be granted has effect only within the granting State's borders. The national system which Madison supported eliminates the need for multiple applications and the expense and difficulty involved. In effect, it allows Congress to provide a reward greater in scope than any particular State may grant to promote progress in those fields which Congress determines are worthy of national action.")

105. U.S. CONST. art. V, §.2. As explained above, current preemption doctrine prohibits states from granting patents for inventions that do not meet U.S. patent law's criteria of patentability or that exceed the terms of U.S. patents. *Kewanee*, 416 U.S. at 489. See also *Bonito*, 489 U.S. at 160-61.

be ideological objectors to federal patent norms who are willing to sacrifice private financial gain for the sake of ideology.

#### **IV. CONCLUSION**

To summarize, this Essay recommends that inventors who are dissatisfied with the U.S. patent system should consider obtaining state patents instead of U.S. patents. Others would be free to copy and use their invention outside the state for any purpose, generating valuable innovation spillovers that improve society in the long run. But the state patent would secure the inventor's full rights of exclusivity in the state for the term of the patent and would prevent others from obtaining U.S. patents for the same invention. At the same time, dissenting inventors would achieve a unique opportunity to reform patent law from the bottom up by soliciting patents in states that agree to employ rules that support their goals of open innovation and free sharing of information. Inventors may not be able to convince all fifty states to start granting patents. But all they need is for one state to start doing it (think of Delaware's dominance in corporate law). Federal courts and eventually Congress would have no choice but to ban state patents for good – a move that was not contemplated by the Framers or members of the First and Second Congress – or officially sanction dissenting state patent regimes until federal reforms make them unnecessary. ■