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HOW PATENTS BECAME POLITICS♦

STEVEN WILF*

Political mobilization in the digital age often coalesces around opposition to the far-reaching protection of intellectual property. Both copyright and patent have materialized as the centerpiece of major political and legal debates that take a variety of forms, including the European pirate parties, NGOs such as the Electronic Frontier Foundation in the United States, and the call for Open Source software. The commonplace narrative is that self-interested stakeholders over the past century successfully fashioned an ever-expanding intellectual property system, and that resistance to such legal control of knowledge only emerged in our times. By contrast, this article recovers a little-known alternative story of patent law under siege. It focuses on the first United States intellectual property social movement, a late nineteenth-century attack by Prairie heartland populists on the patent system. In the course of this remarkable movement, protesters proposed a version of patent law centered around users rather than owners, invented an early form of a legal defense fund, convinced state governments to adopt patent infringement as public policy, and, ultimately, joined forces with political opponents to make court decisions less solicitous of patent rights. This article shows how a technical area of law was turned into politics in the nineteenth century. Yet it also provides a lesson for any future intellectual property movements. Through populist contestation at the grassroots level, patent was transformed from settled grants of rights to a fraught, even unstable, area of law.

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INTRODUCTION

Patents and politics appear to be at cross purposes. Patent relies upon rigorous examination procedures and neutral fact-finding administered by technical professionals. Identifying the metes and bounds of invention is hardly the stuff of mass political movements. In our times, however, patent has become a notable site of contention. Activists who demanded waiving patent protection for COVID vaccines blocked traffic and rallied outside Pfizer's New York corporate headquarters.[1] Protesters took to the streets calling for an end to patenting biotechnology that disempowers ordinary farmers.[2] Objecting to patenting life forms, Greenpeace bricked up the entrance to the European Patent Office (EPO) in Munich.[3] Demonstrators marched in Brussels to protest unitary patent software courts.[4] These are only a few illustrations of a burgeoning movement to restructure patent law.

What is at issue? Critics claim international patent harmonization advantages Northern Hemisphere economies over developing countries.[5] Others argue that patent rights benefit corporate interests at the expense of non-profits directed towards public concerns.[6] Underlying racial structures have been identified across intellectual property.[7]

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1 *Protesters Demand Patent Waivers on COVID Vaccine*, USA TODAY (July 14, 2021), https://www.usatoday.com/videos/news/nation/2021/07/14/protesters-demand-patent-waivers-covid-vaccine/7969593002/ [https://perma.cc/WGJ9-4YHG].

2 *See* SHOBITA PARTHASARATHY, PATENT POLITICS: LIFE FORMS, MARKETS, AND THE PUBLIC INTEREST IN THE UNITED STATES AND EUROPE 1 (2017). *See generally* SUSAN K. SELL, PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS, 1–29 (2003).

3 Quirin Schiermeier, *Germany Challenges Human Stem Cell Patent Awarded 'By Mistake*,*'* NATURE, Mar. 2, 2000, at 3–4.

4 *See* Benjamin Henrion, *Demonstration Against Unitary Software Patents Thursday 12 Dec in Brussels,* FOUNDATION FOR A FREE INFORMATION INFRASTRUCTURE (Dec. 9, 2019), http://blog.ffii.org/demonstration-against-unitary-software-patents-thursday-12-dec-in-brussels/ [https://perma.cc/L9J4-STV8] (scheduling the march for December 12, 2019).

5 Ruth Okediji, *The International Relations of Intellectual Property: Narratives of Developing Country Participation in the Global Intellectual Property* System, 7 SING. J. INT'L & COMPAR. L. 315, 317–19 (2003) (tracing the challenges posed by an economic development agenda to existing intellectual property rules); Susan K. Sell, PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS 96–120 (2003).

6 *See* GRAEME GOODAY & STEVEN WILF, PATENT CULTURES: DIVERSITY AND HARMONIZATION IN HISTORICAL PERSPECTIVE (2020); PETER DRAHOS, THE GLOBAL GOVERNANCE OF KNOWLEDGE: PATENT OFFICES AND THEIR CLIENTS 336–40 (2010).

7 *See generally* ANJALI VATS, THE COLOR OF CREATORSHIP: INTELLECTUAL PROPERTY, RACE, AND THE MAKING OF AMERICANS (2020).

Biotechnology and cloning, access to vital information for researchers working on the BRCA gene, control over core technologies that allow companies to project monopoly power, and the failure to leverage patent privileges to counter climate change are just a few flashpoints in the troubled relationship between patents and politics.

Today's intellectual property citizen organizations coalescing around these issues include European pirate parties and NGOs such as the Electronic Frontier Foundation (EFF) in the United States. Pirate parties exist in nearly thirty countries.[8] The Open Source software movement and innovative exceptions to the proprietary model—including Creative Commons, the Open Directory Project, and Patent Commons—speak to the vibrant politics of knowledge.[9] Muckraking websites, such as Techdirt, rally the digerati.[10] Yet intellectual property social movements are not new. They are rooted in late nineteenth-century political currents.

This article turns towards patent's past in order to better understand current political debates. It examines a rural Populist brush-fire campaign emerging in the 1880s as a response to patent infringement lawsuits. Investigating this noteworthy social movement is not intended to provide a genealogical pedigree for contemporary patent activism. What it underscores, instead, is the movement's striking contribution to the indeterminacy of late nineteenth-century patent. In the fashion of all property regimes, patent sought to establish certain and quiet title to intangibles. By challenging the existing patent regime, this Prairie social movement unsettled reliance on defined granted legal rights for inventions.

Late nineteenth-century America set itself apart from European anti-patent politics. British and German arguments for patent abolition in the 1860s and 1870s circulated largely among elites. In 1869, the Netherlands abolished patents as a result of economic debates over free trade. By contrast, United States patent politics during this period consisted of a grassroots movement sidestepping the either-or demands of abolition.[11]

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[8] *List of Pirate Parties*, PIRATE PARTIES INTERNATIONAL, https://pp-international.net/pirate-parties/ [https://perma.cc/S2K6-6ZGX].

[9] *See Software: Free and Open Source Code*, CREATIVE COMMONS, https://creativecommons.org/about/program-areas/software/ [https://perma.cc/9CP8-3SXV]; *Coding with EFF,* Electronic Frontier Foundation, https://www.eff.org/about/opportunities/volunteer/coding-with-eff/ [https://perma.cc/SC5W-M374]; *About DMOZ,* DMOZ, https://www.dmoz-odp.org/docs/en/about.html/ [https://perma.cc/7UVW-TQ8U]; Patent Commons, http://www.patentcommons.org/ [https://perma.cc/UZT5-7YUE].

[10] TECHDIRT, https://www.techdirt.com/ [https://perma.cc/VF95-AMM8].

[11] Mark D. Janis, *Patent Abolitionism*, 17 BERKELEY TECH. L.J. 899 (2002); Stef van Gompel, *Patent Abolition: A Real-Life Historical Case Study*, 34 AM. U. INT'L L REV. 877 (2019); Fritz Machlup & Edith Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. ECON. HIST. 1 (1950); Christine MacLeod, *Concepts of Invention and the Patent Controversy in Victorian Britain*, *in* TECHNOLOGICAL CHANGE: METHODS AND THEMES IN THE HISTORY OF TECHNOLOGY 140–45

Agitating instead for rethinking *existing* patent rules, it cast doubt on claims for inventions and thereby raised the specter of a radical legislative reworking of patent rights. Such mobilization transformed patent from a settled title for invention to an unstable and contested terrain.

Part I, *Fraught Law and Social Movements*, provides conceptual and historical background. It distinguishes social movements from both individual acts of resisting intellectual property norms and collective action of interest groups in pursuit of their own self-regarding goals. A patent social movement, such as our late nineteenth-century case study, mobilizes citizens around a shared set of beliefs through sustained organization. Tracing the movement's earliest antecedents to Jacksonian condemnation of knowledge monopolies, this section situates its emergence within grassroots responses to intellectual property in the aftermath of the 1870 Intellectual Property Act. This movement briefly notes parallel agitation for international copyright protection in the same period. While the patent movement rallied Great Plains farmers, Eastern seaboard writers mobilized to change copyright.

Part II, *Patents and Protests*, describes how rural Americans became patent outlaws. It details underlying causes behind the patent insurgency. First, prevailing patent law doctrine itself prompted agitation. Patent reissuances, tough penalties for infringement, and what were seen as overly broad grants of rights opened the door to abuse. Second, the rise of patent licensees for those purchasing rights from inventors created incentives for exploiting agriculturalists through predatory infringement suits. Third, introducing new technologies brought Prairie farmers into their initial contact with intellectual property law. Three technologies in particular—barbed wire fencing, water wells, and gates—proved to be important sources of friction between patent owners and farmers.

Rural militants deployed an array of tactics in response to infringement lawsuits. Petitioning Congress for redress, they deluged legislators by proposing revisions of patent law that would favor users. These included limiting the ability of patent holders to sue and creating innocent infringer defenses. Through existing populist political organizations, farmers introduced mutual defense funds to provide legal assistance against infringement suits. Agrarian interests launched what was called the Free Wire Movement—supporting state manufacture of barbed wire that knowingly infringed patents in order to break the clout of patent holders.

(Robert Fox ed., 1996). For an example of appeals to elites in Britain and Europe, see ROBERT ANDREW MACFIE, RECENT DISCUSSIONS ON THE ABOLITION OF PATENTS FOR INVENTIONS IN THE UNITED KINGDOM, FRANCE, GERMANY, AND THE NETHERLANDS: EVIDENCE, SPEECHES, AND PAPERS IN ITS FAVOUR (1869).

Part III, *Political Bedfellows*, examines what happens when an intellectual property social movement stalls. Nineteenth-century rural farmers failed to pass new legislation. Cause lawyering only addressed particular patent cases rather than broader policy issues. At the end of its life cycle, however, this patent campaign forged an unexpected political alliance. Anti-monopoly farmers joined with their arch-opponents, railroad monopolies. This extraordinary coalition of rivals urged Congress to revise patent law that would tilt towards users rather than patent owners. While this draft legislation did not pass, it pressured courts to be less solicitous of patents in infringement cases. The conclusion identifies the significance of the historical narrative of patent unrest and political mobilization for current intellectual property law.

I. FRAUGHT LAW AND SOCIAL MOVEMENTS

The master narrative of intellectual property law in America is one of relentless expansion. Self-regarding interests groups, the story commonly goes, use broader categories of protection to promote the commodification of knowledge. Intangible rights are solidified into property claims. Yet it might be more apt to characterize intellectual property as fraught law—its history characterized by indeterminacy in its legal rules, bedeviled by enforcement problems, and as seen in this article, forged in contestation.

Contestation takes many different forms. It may be expressed through clamoring for statutory reform in Congress even when reform has little chance of success. Individual intellectual property outlaws might engage in widespread infringement.[12] Yet it is also critical to uncover a broad social history of contestation as groups mobilized to debate and challenge the scope of intellectual property law. How does the ordinary business of making law become a rhetorical flashpoint? What strategies were used by activists to campaign, organize, and recruit followers? And how did social movements alter the historical trajectory of intellectual property law in America?[13]

As a form of contestation, social movements test the plasticity of legal conventions, identify fundamental ideas grounding legal doctrine, and frame legal arguments in order to expand their base beyond core constituencies. Our focus will be upon how citizens imagined doctrine—not on how doctrine imposed legal categories upon them. In the course of contesting patent law, we shall see that ordinary nineteenth-century

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[12] EDUARDO MOISÉS PEÑALVER & SONIA K. KATYAL, PROPERTY OUTLAWS: HOW SQUATTERS, PIRATES, AND PROTESTERS IMPROVE THE LAW OF OWNERSHIP 12–13 (2010).
[13] *See generally* Steven Wilf, *Intellectual Property*, *in* A COMPANION TO AMERICAN LEGAL HISTORY 441–60 (Sally E. Hadden & Alfred L. Brophy eds., 2013).

Americans conjured up new theories of user rights and claims for the public welfare.

How do we distinguish social movements from interest group politics? The hallmarks of a social movement, as opposed to an interest group, consist of broad-based mobilization, ideological claims grounded upon a capacious understanding of the public good, and an organization framework resembling those of civic organizations. Interest groups seek to influence public policy for the purpose of rent-seeking private gain. Such groups might be industry, consumer, or workers' groups which exert influence in the process of bargaining for resources. In contrast, social movements are concerted and sustained extra-official actions directed towards implementing social change.[14] They embody more self-consciousness than simply shared belief, more cooperative organization than spontaneous protest, and more broadly based concerns than garden variety interest groups.[15]

Focusing on intellectual property social movements means identifying contestation as much as *per se* legal claims. It is important to emphasize the normative purchase of redefining the actual scope of intellectual property as *enforceable rights*, not *claimable rights*.[16] Statutes set out the ambit of the protected subject matter. Certain types of knowledge are placed within the scope of protection while other forms are left for common use. However, statutory protection is mandated with little attention to the reality of actual scope.

Is there anything particularly American about the emergence of late nineteenth-century intellectual property social movements? In the American context, the people themselves are a constitutive part of intellectual property's doctrinal landscape as intellectual property is embedded in the Constitution.[17] By the 1830s, however, Jacksonian political figures such as William Leggett identified intellectual property as "artificial rights."[18] Jacksonians asked who benefits from grants of

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14 Jeff Goodwin & James M. Jasper, *Editors' Introduction* to THE SOCIAL MOVEMENTS READER: CASES AND CONCEPTS 3 (2009); Michael McCann, *Introduction* to LAW AND SOCIAL MOVEMENTS xi–xxvi (2006); Alan Hunt, *Rights and Social Movements: Counter-Hegemonic Strategies*, 17 J.L. & SOC'Y 309 (1990).

15 *See* William N. Eskridge, Jr., *Some Effects of Identity-Based Social Movements on Constitutional Law in the Twentieth Century*, 100 MICH. L. REV. 2062 (2002); Edward L. Rubin, *Passing Through the Door: Social Movement Literature and Legal Scholarship*, 150 U. Pa. L. Rev. 1, 3–4 (2001) (Social movements defined as self-conscious, loosely organized, ideologically-based coordinated efforts for social change.); Reva B. Siegel, *Constitutional Culture, Social Movement, Conflict and Constitutional Change: The Case of the De Facto ERA*, 94 CAL. L. REV. 1323 (2006) (underscoring the critical role played by social movements in promoting democratic constitutionalism).

16 John Tehranian, *Infringement Nation: Copyright Reform and the Law/Norm Gap*, 2007 UTAH L. REV. 537 (2007).

17 U.S. CONST., art. I, § 8.

18 William Leggett, *Rights of Authors*, PLAINDEALER (New York), Jan. 27, 1837, *reprinted in* DEMOCRATICK EDITORIALS: ESSAYS IN JACKSONIAN POLITICAL ECONOMY 391–96 (Lawrence H. White ed., 1984).

exclusive rights. They situated intellectual property within broader debates about economic development and tariffs. Sometimes referring to copyright and patent as monopolies, Jacksonians invoked political struggles from the Bank Wars to court cases like Charles River Bridge.[19] "Those who are inimical to patent rights, and wish to oppose them," wrote one pro-patent pamphleteer, "call them monopolies, to make them odious to the people."[20]

Fear of favoritism was the specter haunting early nineteenth-century United States patent law. Early modern English monopolies were granted through royal patronage.[21] Allowing a triumvirate of executive branch officials to grant American patents under the 1790 Patent Act seemed subject to partiality. The patent clashes over steamboats in the early years of the New Republic confirmed this opinion. Even prizes for inventors as a substitute for patent, as was practiced in Britain generally and in France under a 1791 statute, might spawn an unfair system.[22] Yet, rather than seeking to abolish patents, Jacksonians set out to reform them by establishing, via the 1836 Patent Act, an administrative agency that would rely upon non-political technical expertise to determine the merit of patent applications. Mechanics, an important Jacksonian constituency, welcomed the introduction of an examination procedure controlled by likeminded scientific men. The 1836 Patent Act was intended to limit the grant of patents solely to inventors—and not to those who manage to wrest a monopoly from the government, and to set fixed criteria to determine what constitutes invention.[23]

The Act of 1870 furnished a kind of restatement that would strengthen and settle law in the arenas of patent, trademark, and copyright.[24] Yet, rather than ushering in a harmonious classical period, it marked the beginning of a series of challenges to intellectual property governance. Federal trademark law was struck down as unconstitutional by the Supreme Court. As we shall see, the 1880s were a time of patent upheaval. It is also important to note the *other* intellectual property social movement emerging in the late nineteenth-century United States. Agitation for international copyright and agrarian protest against patent

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19 STANLEY I. KUTLER, PRIVILEGE AND CREATIVE DESTRUCTION: THE CHARLES RIVER BRIDGE (1971); MARVIN MEYERS, THE JACKSONIAN PERSUASION: POLITICS AND BELIEF 185–233 (1960).

20 Oliver Evans, *Reflections on the Patent Law, in* EXPOSITION OF PART OF THE PATENT LAW BY A NATIVE BORN CITIZEN OF THE UNITED STATES 67 (1816). *See* Herbert Hovenkamp, *The Emergence of Classical American Patent Law*, 58 ARIZ. L. REV. 263, 300 (2016) (underscores the pervasiveness of anti-competition law for shaping patent law in the early nineteenth century).

21 Tyler Trent Ochoa & Mark Rose, *The Anti-Monopoly Origins of the Patent and Copyright Clause*, 84 J. PAT. & TRADEMARK OFF. SOC'Y 909 (2002).

22 Willard Phillips, THE LAW OF PATENTS FOR INVENTORS; INCLUDING THE REMEDIES AND LEGAL PROCEEDINGS IN RELATION TO PATENT RIGHTS 19–20 (1837).

23 Patent Act of 1836, 5 Stat. 117, 117–18 (1836); Oren Bracha, Owning Ideas: The Intellectual Origins of American Intellectual Property, 1790-1909, 206–17 (2016).

24 Patent Act of 1870, ch. 230, § 16 Stat. 198–217 (1870) (current version at 35 U.S.C. § 4).

law arose at the same time—though the copyright movement transpired in the thin ribbon of coastal publishing centers, such as Philadelphia, New York, and Boston, while patent protest galvanized America's Midwestern rural heartland.[25] What diverse forms of mobilization did these contemporaneous patent and copyright reform movements adopt? And how were these two intellectual property social movements similar?

One was urban, Eastern, progressive, and focused on copyright. It sought to enlarge the rights of creators. The other was agrarian, Midwestern, populist, and designed to promote legal reform through relying upon the vast political network of the Grange in order to promote user rights *against* those of patentees. Despite their differences, they are more alike than might be suspected at first glance. Both drew upon popular support as part of a much broader legislative campaign. International copyright issues came to the fore with the coming of the mass-produced industrial book.[26] Prairie patent unrest similarly was situated in nineteenth-century communication and transportation revolutions.

Neither the earlier Jacksonian critiques of intellectual property nor the contemporaneous elite Progressive movement for international copyright compares in force to the late nineteenth-century social movement to remake patent law. This was a full-scale assault on the patent system through collective action. It entailed mass drives for petitions, enlisting of public defenders against patent infringement claims, pamphlet wars, and even manufacturing patent infringing goods at the behest of the government. This remarkable story of patent contestation has significance for our own time.

II. PATENTS AND PROTESTS

As part of the populist social movement of the 1880s and 1890s, agrarian activists deployed novel strategies of political mobilization to pursue their quest to remake the patent system. Rural interests rallied against the robust enforcement of patents by drawing upon the rhetoric and institutional structures of existing populist organizations such as the National Grange Order of Husbandry, better known as the Grange, a large-scale agrarian fraternal society founded in 1867. But they also utilized particularly legal mechanisms to transform discontent into a coherent intellectual property social movement.[27]

[25] Steven Wilf, *Copyright and Social Movements in Late Nineteenth-Century America*, 12 THEORETICAL INQUIRIES L. 123, 140 (2011).
[26] Michael Winship, *Manufacturing and Book Production*, *in* A HISTORY OF THE BOOK IN AMERICA: THE INDUSTRIAL BOOK 1840-1880, 40–58 (Scott E. Casper, Jeffrey D. Groves, Stephen W. Nissenbaum & Michael Winship eds., 2007).
[27] Camilla A. Hrdy has seen my discussion of anti-patent movements as a precursor to current state attempts to thwart the activities of non-federal patent regulation. Camilla A. Hrdy, *The*

Patent protesters founded legal defense funds to assist in patent infringement suits. They launched educational programs to inform farmers about how to respond when litigation is threatened. They lobbied state legislatures to fashion regulations that might hamstring aggressive patent policing. And they organized petition drives and caucuses calling for the remaking of American patent law. The attempt by industrialists to establish a barbed wire syndicate whose monopoly pricing rested upon ownership of key patents, for example, led to the creation of a "free wire movement" with its own legal stratagem of strategic infringement.

Christopher Beauchamp recently described what he calls "the first patent litigation explosion," and it should come as no surprise that the first patent social movement emerges in the second half of the nineteenth century at approximately the same time.[28] The impact of end-user copyright infringement suits widely varied for different social groups and different regions of the country. Until the 1870s, intellectual property law barely existed in the everyday life of farmers inhabiting the Great Plains. Their earliest encounter with patent enforcement was sudden and ill-fated. In the aftermath of the Civil War, a motley collection of legal intermediaries—patent agents, speculators, and get-rich-quick lawyers—descended upon Midwestern farmers, launching lawsuits for patent infringement. This litigation centered upon essential agricultural technology such as wells, gates, and barbed wire fencing.

Newly mobilized, farmers produced a tidal wave of legislative proposals and petitions—all of which tell us a great deal about how ordinary people thought about intellectual property law. Embracing an understanding of patents that was more public-oriented, these schemes included alternative visions of regulation such as good faith user defenses against infringement claims. The thrust was as much about reform as it was about contention. At the very same time as when various countries on the European continent were debating or adopting patent abolition proposals, American farmers were pragmatically setting forth numerous draft statutes to Congress for reforming patent law.[29] Most of these bills were fairly short. The sheer quantity of agrarian populist proposed legislation is nevertheless astonishing. These numerous wished-for bills included specific measures to be implemented. However, they also served as petitions simply articulating a plea for Congress to act.

Reemergence of State Anti-Patent Law, 89 U. COLO. L. REV. 133, 141–49 (2017). The nineteenth-century patent controversy has also attracted the attention of Gerard N. Magliocca. Gerard N. Magliocca, *Blackberries and Barnyards: Patent Trolls and the Perils of Innovation*, 82 NOTRE DAME L. REV. 1809, 1810–11 (2007). But his focus is largely on the rise of the early patent trolls rather than on political mobilization.

[28] Christopher Beauchamp, *The First Patent Litigation Explosion*, 125 YALE L.J. 848 (2016).

[29] *See* Janis, *supra* note 11; van Gompel, *supra* note 11; Machlup & Penrose, *supra* note 11.

Although the right to petition is embedded in the First Amendment of the United States Constitution, this right was seriously curtailed by Southern legislators during their struggle against abolitionist petitions in the antebellum period.[30] Its revival in a new form by late nineteenth-century farmers to overhaul the patent system is a testament to their insistent pragmatism. As will be discussed at the end of the article, in 1878, populists also engaged in the practical politics of legal reform when they forged an unlikely alliance with their most significant political opponents—the railroads—to set forth a lengthy, detailed, and pragmatic draft statute for user rights that had a serious likelihood of being adopted by Congress.

Farmers benefitted from new forms of technology. Although the struggle over patent frayed political ties to urban mechanics, they nevertheless respected the meritocratic element in the process of patenting inventions. They appreciated the fact that "to these inventors and discoverers we are indebted for much that is of great value to the public."[31] Grangers accepted the fact that mechanics should be rewarded. However, they proposed that there been a test of real practical value—how the patent might be used—as a requirement for issuing a patent and price controls on the cost of the invention. Rather than having patentees become rent seeking monopolists, agrarians proposed granting mechanics special monetary awards for inventions beneficial to society.[32] Another proposal, promoted by an Indiana Congressman, recommended fixed royalties for patents set by the government.[33]

Prairie patent reformers did not debate at length theoretical justifications for intellectual property. Nor did they often dispute the examination process. Their critique was from the point of view of users deeply situated in a web of invention. Did patent governance need a major overhaul? Patent promoters were seriously concerned with the tsunami of patent reform proposals emanating from the Great Plains. In an 1884 introduction to patent law, William Kookogey identifies the patent system, along with the right of petition, habeas corpus, and trial by jury as a measure enacted by the people against the "rights of a tyrannical king" who would establish monopolies for favorites.[34]

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30 RONALD J. KROTOSZYNSKI JR., RECLAIMING THE PETITION CLAUSE: SEDITIOUS LIBEL, "OFFENSIVE" PROTEST, AND THE RIGHT TO PETITION THE GOVERNMENT FOR A REDRESS OF GRIEVANCES 115–20 (2012).

31 D. C. CLOUD, MONOPOLIES AND THE PEOPLE 240 (1873).

32 CHARLES POSTEL, THE POPULIST VISION (2009); *Arguments in Support of, and Suggesting Amendments to, the Bills (S. No. 300 and H.R. 1612) to Amend the Statutes in Relation to Patents, and for Other Purposes Before the Committee on Patents of the Senate and the House of Representatives*, 45th Cong. 73 (1878) [hereinafter *Arguments*].

33 *The Grangers and Patents*, PRAIRIE FARMER, Feb. 28, 1874.

34 WILLIAM P. KOOKOGEY, PATENT LAW IN BRIEF: A SUCCINCT TREATISE ON THE PATENT LAW OF THE UNITED STATES DESIGNED FOR INVENTORS & OTHERS INTERESTED IN PATENTS 2 (1884).

Such rhetoric valorizing invention sought to immunize existing patent law against popular reform. Another pro-patent strategy identified reform with an unrelenting attack on the patent system. One writer lamented the "insane cry of the general public against the patent laws."[35] According to a commentator in the 1890s, "[a]t every session of Congress bills are introduced, providing, if not for the repeal of the law, at least for its amendment in such a way as to destroy or impair the value of patent property."[36] But, in fact, populist agitation to recast patent law was an attempt to make a *better* patent system by including rights for users as well as owners, not to destroy its very foundations.

A. *Patent Outlanders*

The Prairie lands of the 1870s and 1880s served as an experimental site for envisioning patent user rights, limitations on infringement suits, and the setting of just remedies. None of the innumerable proposals sent to Congress came to fruition, but imagined law also tells us a great deal.[37] The early 1880s—until our own times—may well have represented the high-water mark of patent reform agitation. "Let the arrows of indignation," wrote one commentator, "be directed toward our patent laws, which render possible 'a great monopoly.' If any of our laws ever needed revision our patent laws do."[38]

Agrarian calls for revision occurred as American agriculture increasingly relied upon patented inventions. In 1871, 160 patents were issued for reapers, 72 for threshers, 13 for cornhuskers, and 160 for plow implements.[39] A new flexible harrow, a tool intended to smooth out clumps of soil, was patented in 1877.[40] Some of the increase in patented agricultural implements may have been due to the loosening of the standards for patentability. The 1870 Patent Act allowed for the protection of any "new, useful, and original" design without significant advancement over previous designs.[41]

By 1890, the number of patents for harrows numbered in the hundreds, and a new entity, The National Harrow Company, was established to create some order in the field.[42] In 1879, the standard patent

[35] Sam Kemble, Jr., Letter to the Editor, *Patent Bills in Congress*, 50 SCI. AM. 129 (1884). On legislative anti-patent activity, see EXTRACTS FROM THE PRESS ON THE PROPOSED AMENDMENTS TO THE PRESENT PATENT LAWS, NOW BEFORE CONGRESS (2011).
[36] Chauncey Smith, *A Century of Patent Law*, 5 Q.J. ECON. 44, 59 (1890).
[37] Steven Wilf, *Law/Text/Past*, 1 U. CAL. IRVINE L. REV. 543, 560–61 (2011).
[38] OHIO FARMER, June 11, 1881.
[39] MAURY KLEIN, THE GENESIS OF INDUSTRIAL AMERICA, 1870–1920, at 46 (2007).
[40] U.S. Patent No. 197,749 (issued Aug. 28, 1877).
[41] Patent Act of 1870, ch. 230, § 71, 16 Stat. 198–217; Magliocca, *supra* note 27, at 1821.
[42] R. L. ARDREY, AMERICAN AGRICULTURAL IMPLEMENTS 22 (1894).

for corn cultivators was issued.[43] A series of newly patented changes in harvester production led to 100,000 harvesters being sold by 1879.[44] New harvesters in the 1880s incorporated self-binding features, and the McCormick Harvesting Machine Company, incorporated in 1879, marketed industrial methods of agricultural production that would both increase yield and make farmers dependent upon patented inventions.[45] After the Civil War, the number of agricultural patents markedly increased. While in 1863, there were 400 agricultural patents; there were 1,800 issued in 1866.[46] The rise in the number of patents, and the demands placed upon farmers to pay those holding them, came at the same time as agricultural prices declined. Patents also commanded the attention of agrarian interests because the issue of monopoly spoke, in a broader sense, to a classic grange issue.

Rural discontent with the Patent Office was new. Founded during the Jackson administration in 1836, the Patent Office was designed to reflect agrarian interests.[47] Indeed, under Henry Leavitt Ellsworth, the first Commissioner of Patents, it distributed seeds to farmers. Since the Department of Agriculture would not be founded until 1862, the Patent Office also collected agricultural statistics.[48] Ellsworth envisioned the Patent Office as an open university "whe[re] the sons of agriculturalists, after years of toil at the plough, can attend a course of lectures at the seat of Government" on matters of scientific agriculture.[49] The Patent Office reflected the Jacksonian alliance between a meritocracy of urban mechanics and farmers. However, the Civil War had exacerbated the sense that the United States was a house divided. Stoking sectional differences, one newspaper claimed anti-patent legislation was proposed by "reckless Western demagogues."[50] The *Boston Herald* quoted a critic who called this the "granger interest against the patent system of the country."[51]

Throughout the 1870s and 1880s, agricultural prices for corn and wheat fell due to a rise in supply. After the Civil War, population

[43] Improvement in Cultivators, U.S. Patent No. 220,463 (filed Apr. 12, 1879) (issued Oct. 14, 1879).
[44] Klein, *supra* note 39, at 47.
[45] Klein, *supra* note 39, at 48–49.
[46] U.S. Patent No. 211,821 (issued Feb. 4, 1879). *See* Earl W. Hayter, *The Patent System and Agricultural Discontent, 1875–1888*, 34 MISS. VALLEY HIST. REV. 59, 61 (1947). *See also* EARL W. HAYTER, THE TROUBLED FARMER (1966).
[47] *See* Franklin Bowditch Dexter, BIOGRAPHICAL SKETCHES OF THE GRADUATES OF YALE COLLEGE 309–12 (1912); William I. Wyman, *Henry L. Ellsworth: The First Commissioner of Patents*, 1 J. PAT. OFF. SOC'Y 524, 524–29 (1919).
[48] Patent Act of 1836, ch. 357, 5 Stat. 117 (1836); Wyman, *supra* note 48, at 525–26.
[49] Wyman, *supra* note 48, at 525.
[50] PHILA. TIMES, Mar. 16, 1884, *reprinted in* EXTRACTS FROM THE PRESS ON THE PROPOSED AMENDMENTS TO THE PRESENT PATENT LAWS, NOW BEFORE CONGRESS 36 (2011).
[51] BOSTON HERALD, Mar. 18, 1884, *reprinted in* EXTRACTS FROM THE PRESS ON THE PROPOSED AMENDMENTS TO THE PRESENT PATENT LAWS, NOW BEFORE CONGRESS 41 (2011).

migrated to the Midwest. Virgin land was opened for farming and railroads enabled the transportation of larger numbers of agricultural products to markets.[52] As a result, the gap between the amount farmers were paid for their produce and the cost of farm implements, such as reapers, mowers, and plows, widened.[53] Not surprisingly, farmers turned to political agitation. The major political organ for farmers, the Grange, embraced a variety of rural causes including free rural postal delivery, banking and credit regulation, reforming the tariff system, and regulation of oleomargarine.[54] Its adherents increased dramatically with worsening agricultural conditions to number almost 800,000 members.[55] Much of its focus was on the costs related to railroad shipping and those charged by warehouses to store grain. With such an array of issues, the Grange might not have focused upon patent if it was not for sudden appearance of end-user infringement suits by the early 1870s.

By contrast, patent holders identified a significant gap between ascribed patent rights and enforcement. Joseph Holt, the Commissioner of Patents, declared in 1857 that "[t]he eyes of Argus would not suffice to discover" the myriad of patent infringements.[56] The next Commissioner, William Darius Bishop, agreed. "There is no species of property in this country," he asserted, "subject to the same hazards and uncertainty as property in patents."[57]

Recognizing the difficulty of receiving a return on an invention, the Patent Office proved increasingly willing to grant term extensions and reissuances. If a patent was "invalid or inoperative, by reason that any of the terms or conditions prescribed in [the patent statutes] have not, by inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, been complied with" by the inventor, then the Secretary of State could reissue a patent which would cure these defects.[58] In other words, patentees could correct their claims—the definition of the

[52] James H. Stock, *Real Estate Mortgages, Foreclosures, and Midwestern Agrarian Unrest, 1865-1920*, 44 J. ECON. HIST. 89–105 (1984).

[53] Arthur H. Hirsch, *Efforts of the Grange in the Middle West to Control the Price of Farm Machinery 1870–1880*, 15 MISS. VALLEY HIST. REV. 473 (1929).

[54] JENNY BOURNE, IN ESSENTIALS, UNITY: AN ECONOMIC HISTORY OF THE GRANGE MOVEMENT 5–30 (2017).

[55] THE OXFORD ENCYCLOPEDIA OF AMERICAN POLITICAL AND LEGAL HISTORY 415 (Donald T. Critchlow, Philip R. VanderMeer & Paul Boyer eds., 2012).

[56] *Arguments*, *supra* note 32, at 76 (statement of W.C. Dodge quoting Report for 1857).

[57] *Id.*

[58] Patent Act of July 3, 1832, ch. 162, 4 Stat. 559 (1832) (repealed 1836) (concerning patents for useful inventions). Reissuance existed as an ad hoc administrative process from 1813. It was upheld by the Supreme Court in Grant v. Raymond, 31 U.S. 218 (1832) and codified in the 1832 Act. The 1832 Act was superseded by the Patent Act of 1836. *See* James P. Hughes, *Patent Law Through Patent Administration: The First Patent Superintendent's Creation of Reissue Practice and Law*, 18 FED. CIR. BAR J. 451, 458 (2009); Kendall J. Dood, *Pursuing the Essence of Inventions: Reissuing Patents in the 19th Century*, 32 TECH. & CULTURE 999, 1001 (1991); Adam Mossoff, *Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent "Privilege" in Historical Context*, 92 CORNELL L. REV. 953, 1000–01 (2007).

scope of the patent—when, in the course of an infringement suit, they discovered that claims of the invention did not clearly apply to the machine or process that was the object of the suit. Congress intended reissuance as an equitable process. It was designed to prevent an infringer from benefitting when the original patentee simply made an oversight in drafting. An 1832 opinion upholding reissuance appealed to "[t]hat sense of justice and of right which all feel, [which] pleads strongly against depriving the inventor of the compensation thus solemnly promised, because he has committed an inadvertent or innocent mistake."[59]

Nevertheless, patent reissuance was often used to secure claims rejected in the original patent application and to unjustifiably broaden claims in order to challenge potential market competitors.[60] The 1870 Patent Act added a provision that precluded the introduction of "new matter" into the specification for a reissuance.[61] According to the 1882 Supreme Court decision in *Miller v. Brass*, "a curious misapplication of the [reissue provision] has come to be principally resorted to for the purpose of enlarging and expanding patent claims. And the evils which have grown from the practice have assumed large proportions."[62] The Court in that case imposed an obligation of timeliness, generally up to two years, on a patentee seeking a reissued patent.[63] Furthermore, in 1886, the Supreme Court found estoppel for a patent holder applying for a reissuance where the claims had been narrowed by the Patent Office in order to secure the original patent.[64]

Judicial disfavor of reissuance may have emerged in response to popular discontent. Lengthening the protection afforded to patents, reissuance rendered their scope uncertain to unwary users. Farmers were frequent critics of extending claims. In the *Barb Fence Regulator*, a periodical dedicated to attacking the barbed wire monopoly, a cartoon entitled "Ancient Ancestry, The Father of Lies. The Monopolists' Pedigree. The Boss Bull-Dozer," depicted the devil with his hand raised as he makes arguments in his defense while a sheet of paper entitled "broad claim" sticks visibly out of his rear pocket.[65]

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59 Grant v. Raymond, 31 U.S. 218, 242 (1832). Originally, courts looked much more favorably on reissuance. In Philadelphia and Trenton Railroad v. Stimpson, 39 U.S. 448, 458 (1840), the Supreme Court held that a patent reissue was presumed to be valid.

60 *See* Kendall J. Dood, *Pursuing the Essence of Inventions: Reissuing Patents in the 19th Century*, 32 TECH. & CULTURE 999 (1991).

61 Act of July 8, 1870, ch. 230, § 53, 16 Stat. 198, 206.

62 Miller v. Brass Co., 104 U.S. 350, 354–55 (1881).

63 *Id.* at 355–56.

64 Shepard v. Carrigan, 116 U.S. 593, 597–98 (1886).

65 LYN ELLEN BENNETT & SCOTT ABBOTT, THE PERFECT FENCE: UNTANGLING THE MEANINGS OF BARBED WIRE 84–85 (2017).

B. *Rethinking the Patent Bargain*

The explosion of infringement suits prompted agrarian radicals to rethink the structuring of the patent system. Was it fair to both inventors and users? Farmers voiced three major complaints. First, the liberal construction of patent, patent pools, and the seven-year reissuance of patents in cases where the owner did not receive adequate compensation during the original term unfairly extended monopoly power. Second, multiple patents and patent holders often left rural people unsure about the thicket of patent rights. One farmer put it rather bluntly: the patent system is "in our boots, it is in our clothes, it is in the tools we work with, in the buggy we ride in, in the harness on the horse, in the whip we strike him with. It is to be found in our fences, in our gates, in our pumps, in our kitchen, in our food, and finally in our coffin."[66]

The third problem faced by farmers proved most vexing: lawsuits against innocent infringers. Innocent infringement occurs when a user engages in infringing activity, but reasonably believes that this conduct is non-infringing. An 1892 proposed Congressional bill provided for protection to innocent infringers, specifically for purchasers of patented inventions.[67] If the user should represent that "he bought such article[s] in good faith and without any knowledge on his part that the same was patented, and upon proof of the truth of such averment," then the user will not be liable for damages.[68] The innocent infringement burden of proof falls upon the user. However, a two-year statute of limitations from the date of the infringement would further protect users from vexatious suits.[69]

The focus on use can be seen in the Senate version from the same year which would create a defense of innocent infringement.[70] Again, the legislation would limit the defense to good faith purchasers of goods, employing "the patented article for use or consumption, and not for sale or for exchange."[71] It identified innocence as a lack of knowledge that technology was protected under patent law. The Senate bill placed the burden on the patentee to provide notice *prior* to the sale of the goods.[72] If the purchaser is notified after buying the invention that the invention is

[66] MICH. STATE BD. OF AGRIC., ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF AGRICULTURE FOR THE YEAR ENDING AUGUST 31, 1879, at 215 (1880); Hayter, *Patent System and Agrarian Discontent, supra* note 46, at 59–65.
[67] A Bill Limiting the Liability of the Users of Patented Articles in Certain Cases, H.R. 606, 52d Cong. (1892).
[68] *Id.*
[69] *Id.*
[70] A Bill to Protect Innocent Purchasers of Patented of Patented Articles, S. 1726, 52d Cong. (1892).
[71] *Id.*
[72] *Id.*

indeed patented, though proper notice was not provided, the purchaser's rights to use the article cannot be impaired.[73]

Many agrarian patents were of insignificant value. As a result, inventors allowed their rights to lie dormant. However, when the patentees saw farmers commonly using their inventions, they sought to collect damages for infringement. Knowing that growers resided far from federal courts and could not afford to retain a lawyer for a sustained defense, royalty collectors harassed them for fees. Patents were frequently sold to middlemen who would travel about the countryside in search of instances of infringement much as Carpetbaggers travelled throughout the post-bellum American South. The Teal sliding gate patent, for example, was purchased by the Bickford Company of Ypsilanti, which sent agents armed with drawings of the gate. These agents demanded royalties depending upon the size of the farm.[74] Sometimes, patent agents would be met with violence.[75]

By the mid-nineteenth century, intermediaries, including patent agents and attorneys, played a critical role in the patent process.[76] They navigated the patent application process by providing legal knowledge to those whose skills lay in the technical arts. Patent agents searched prior art and retained graphic artists to make pictorial representations of patented inventions. Through publishing journals, such as the *Scientific American*, which were designed as marketing tools for their services, patent agents established forums for exchanging information about emerging technologies.[77] In many ways, periodicals replaced local mechanic societies as the centerpiece for inventor networks. The 1871 publication of William Simonds's *Practical Suggestions on the Sale of Patents* marked a shift to a new advice literature that urged inventors to seek professional legal assistance in procuring and litigating patents. By the 1870s, a handful of patent agencies, such as Munn & Company, filed a significant number of patents[78] Patent agents emerged to help steer

[73] A Bill to Protect Innocent Purchasers of Patented or Patented Articles, S. 1726, 52d Cong. (1892).

[74] MICH. STATE BD. OF AGRIC., *supra* note 66, at 217–18. *See also* A.C. Teel, Improvement in Farm Gates, U.S. Patent No. 40,777 (issued Dec. 1, 1863) (reissued July 2, 1867).

[75] *A Valuable Patent Held Void. The Owners of Green's Drive-Well Beaten by a Farmers Alliance*, N.Y. TIMES (May 11, 1883), https://www.nytimes.com/1883/05/11/archives/a-valuable-patent-patent-held-void-the-owners-of-greens-drivewell.html [https://perma.cc/J7C2-6MPT].

[76] *See* Kara W. Swanson, *The Emergence of the Professional Patent Practitioner*, 50 TECH. & CULTURE 519, 519–48 (2009); Naomi R. Lamoureux, Kenneth L. Sokoloff & Dhanoos Sutthiphisal, *Patent Alchemy: The Market for Technology in US History*, 87 BUS. HIST. REV. 3 (2013).

[77] Swanson, *supra* note 77, at 523–27.

[78] Swanson, *supra* note 77, at 527. *See generally* WILLIAM EDGAR SIMONDS, MANUAL OF PATENT LAW 193–220 (1874); Kara W. Swanson, *Authoring an Invention: Patent Production in the Nineteenth-Century United States*, *in* MAKING AND UNMAKING INTELLECTUAL PROPERTY: CREATIVE PRODUCTION IN LEGAL AND CULTURAL PERSPECTIVE 41–54 (Mario Biagioli, Peter Jaszi & Martha Woodmansee eds., 2011).

inventors through the increasingly complex procedures for obtaining a patent. While it is not clear precisely when agents began offering services for contingency fees, the practice became widespread by the mid-1870s. One person working in this area complained how agents seek to obtain patents of any kind rather than showing any concern for the "scope and value of the grant."[79]

But patent agents soon realized that the problem was as much the ability to leverage inventions into marketable products as it was to obtain the issued patent itself. Often reflecting improvements on existing technology, agricultural patents were widely used by manufacturers without the payment of royalties.[80] Intermediaries, some of them lawyers, purchased these dormant patents from inventors with little capital. Operating as patent trolls, they enforced these patent legal rights in an aggressive and opportunistic fashion. When the first section of the American Bar Association Section for patent law was founded in 1895, an attorney had to admit that in the West, a patent lawyer was "hardly regarded . . . as a member of the profession."[81]

Mortimer Leggett, Commissioner of Patents from 1871–1881, described how farmers were threatened with infringement suits for fundamental inventions. "[A] man looked up an old patent which covered a gate. Almost every famer in Indiana and Illinois who had a gate was infringing that patent. This man went around and made them pay from $5 to $20 each, or they must go to court."[82] In Leggett's words, he bought an old patent "[for] a song," then he went "through the country and [bled] the people."[83] Patents recast the spatial landscape of rural America. Ironically, they extended proprietary power over real property at the cost of being subject to urban proprietors of intellectual property.

Finding no recourse in federal law, eight states—including Minnesota and Indiana—passed an "Act to Regulate the Sale of Patent Rights."[84] These laws criminalized selling patents in exchange for a

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[79] 8 PATENT RIGHT GAZETTE (Dec. 1874).
[80] *See Patent Rights, and the Way Farmers are Humbugged*, *in* 28 TRANSACTIONS N.Y. STATE AGRIC. SOC'Y 501–3 (1868).
[81] 18 ANN. REP. OF THE AM. BAR ASS'N 481 (1895) (referring to the "despised and rejected fraternity of patent lawyers").
[82] *Arguments*, *supra* note 32, at 105 (statement of Mr. M. D. Leggett, Ex-Commissioner of Patents).
[83] *Id. See also The Annual Attack Upon Our Patent Laws*, 56 SCI. AM. 15, 16–17 (1887).
[84] Act of Apr. 23, 1869, ch. 43, 1869 Ind. Laws Spec. Sess. 91 (regulating the sale of patent rights) (found unconstitutional in *Ex Parte* Robinson, 20 F. Cas. 961 (C.C.D. Ind. 1870)); Act of Mar. 25, 1869, 1869 Ill. Pub. Laws 302 (regulating the sale of patent rights and preventing frauds connected therewith) (found unconstitutional in Hollida & Ball v. Hunt, 70 Ill. 109 (1873)); Act of May 4, 1869, 1869 Ohio Gen. Loc. Laws 93 (regulating the execution and transfer of notes for patent rights) (found unconstitutional in Woollen v. Banker, 30 F. Cas. 603 (1877)); Act of Mar. 6, 1871, ch. 26, 1871 Minn. Gen. Laws 67 (regulating the sale of patent rights and preventing frauds connected therewith) (found unconstitutional in Crittenden v. White, 23 Minn. 24 (1876)); Act of Mar. 10, 1871, ch. 66, 1870 Wis. Gen. Laws 92 (regulating the sale of patent rights and preventing frauds connected therewith); Act of Feb. 18, 1873, ch. 53, 1873 Neb. Gen. Stats. 508 (regulating

negotiable instrument. The 1871 Minnesota statute also required the registration of the patent prior to sale. Failure to do so would result in up to one year of imprisonment or a fine of up to one thousand dollars. State legislatures were convinced that Congress would not protect patent users. In *Wilch v. Phelps*, such statutes were nevertheless struck down as unconstitutional violations of the federal patent power.[85] Most remarkable was the attempt to bar Singer Sewing Machine Company agents from various states, which also raised constitutional issues.[86] Singer was often seen as a monopoly relying upon patent to restrain legitimate competition. In 1856, it established the first patent pool to ward off what the company considered fruitless patent litigation.[87] State statutes unsuccessfully challenged federal hegemony in the regulation of patents. In the end, those seeking to protect users against what they considered unjust patent infringement suits would have no recourse except the reform of law at the federal level in Congress.

The absence of reliable information about patents provided opportunities for fraud. Products were often sold with either false trademarks or false representations that they were produced under a license. Sometimes patents were issued to multiple manufacturers. Only a court case would determine who controlled the right to make such products as fencing material, seeders, or plows. As one person who suffered harassment remarked, "[h]ow is a farmer to know to whom to pay the royalty, even if it was legal, with three or four applicants swarming around him, all claiming to be the legal patentee[?]"[88] It is hard to ascertain how frequently farmers settled with the collectors. Indiana

the sale of patent rights and preventing frauds connected therewith); Act of Apr. 12, 1872, no. 47, 1872 Pa. Gen. Assemb. Laws 60 (regulating the execution and transfer of notes given for patent rights) (upheld in Haskell v. Jones, 86 Pa. 173, 5 WNC 165 (1878)); Act of Apr. 13, 1871, no. 121, 1871 Mich. Gen. Acts 191 (regulating the execution and transfer of notes or other obligations given for patent rights) (found unconstitutional in Cranson v. Smith, 37 Mich. 309 (1877)); Wm. Ritchie, *Patent Rights and State Rights*, 8 Cent. L.J. 242, 243 (1879). These cases have involved state regulation of patent rights. The Supreme Court determined that police powers are retained by the states in cases where the patent may cause harm to personal health and safety. Patterson v. Kentucky, 97 U.S. 501, 504–06 (1878) (upholds bar on sale of patented oil unsuitable for illumination).

[85] Wilch v. Phelps, 15 N.W. 361, 362 (Neb. 1883); CHRISTOPHER G. TIEDEMAN, A TREATISE ON THE LIMITATIONS OF POLICE POWER IN THE UNITED STATES § 207, 630 (Lawbook Exchange 2001).

[86] *See* State v. Richards, 9 S.E. 245 (1889). The Supreme Court struck down an attempt to tax the importation of Singer sewing machines purchased from manufacturers in another state. Singer Sewing Mach. Co. v. Brickell, 233 U.S. 304 (1914).

[87] Ryan L. Lampe & Petra Moser, *Do Patent Pools Encourage Innovation? Evidence from the 19th-Century Sewing Machine Industry* (Nat'l Bureau of Econ. Rsch., Working Paper No. 15,061, 2009); Adam Mossoff, *The Rise and Fall of the First American Patent Thicket: The Sewing Machine War of the 1850s*, 53 ARIZ. L. REV. 165, 166–67 (2011); *A Sewing Machine-Patent Extension: An Irate Opponent*, 23 SCI. AM. 41, 41 (1870); *The Sewing Machine Monopoly*, 36 SCI. AM. 277, 277 (1877).

[88] *The Driven Well Patent*, 3 NAT'L LIVE-STOCK J. 435 (1887).

Senator Voorhees estimated that farmers had paid over six million dollars simply to fend off infringement claims for barbed wire fencing.

C. *Patent Rights for Users*

In 1884, legislation was proposed to reduce the patent term from seventeen to five years. With a larger number of patents in the public domain, the number of suits against innocent infringers would decline. Another proposed bill addressed the problem of patent holders allowing the use of their inventions for years and then seeking damages later. It limited recovery to a nominal sum for patents infringed upon solely for good faith personal use. This legislation also lessened damages for manufacturing a patented article to payment of a licensing fee. Of course, under such a law, there would be little incentive to negotiate a license with the patent holder in the beginning since, even if one is found guilty of infringement, there would be no additional penalties beyond what would have been the cost of the license.[89]

The immunization of innocent users from patent suits had important consequences for patent holders. While it was difficult to sue the manufacturers or even the sellers, of an article, an intent requirement for users would create significant hurdles.[90] Intent is difficult to prove. As pro-patent writers pointed out, users of unauthorized inventions would always claim they are innocent purchasers. A New York newspaper suggested that the proposed legislation be renamed either "A bill to invite perjury" or "An act to endow thieves with a legal right to 'stolen goods.'"[91] One patent rights advocate called the innocent user defense a form of "guerilla warfare" in the legislature.[92] In 1880 and 1882, bills passed the House limiting the liability of innocent infringers, but they failed to be ratified the Senate.[93]

Other pending bills in the early 1880s included a proposed statute compelling the plaintiff in a patent lawsuit to post bonds for the cost of litigation to pay all costs if the suit proved to be unsuccessful.[94] In the 1884 session, some twenty patent bills were introduced. Not surprisingly, draft legislation in the 1880s came from states with few issued patents. Indiana Senator Daniel Voorhees put forward a bill making absence of

[89] For discussions of these proposed bills, see *A Bill to Reduce the Lifetime of a Patent to Five Years*, 50 SCI. AM. 63, 65 (1884) (H.R. 3617 reduces term to five years); *Patent Bills Recently Passed by the House of Representatives, and Now Before the Senate*, 50 SCI. AM. 63, 73 (1884) (H.R. 3925, Section 1 limits recovery for personal use of patents; Section 2 outlines damages as payment of licensing fee).

[90] *The Patent Committee's Error*, 50 SCI. AM. 79, 81 (1884).

[91] *Attacks on the Patent Laws*, BROOKLYN DAILY EAGLE, Mar. 16, 1884, at 6.

[92] *Patent Legislators in Congress*, 42 SCI. AM. 32 (1880).

[93] SOLON JUSTUS BUCK, THE GRANGER MOVEMENT: A STUDY OF AGRICULTURAL ORGANIZATION AND ITS POLITICAL, ECONOMIC AND SOCIAL MANIFESTATIONS 119 (1930).

[94] N.Y. SUN, Mar. 13, 1884.

notice an affirmative defense in patent infringement suits. Representative William Calkins of Indiana sought to bar recovery of costs in patent suits. Kansas Congressman John Anderson proposed reducing the patent term from seventeen to five years. Senator Zebulon Vance of North Carolina called for legislation allowing innocent use of patents to result in license fee payment rather than damages.[95]

Bills passed the House of Representatives only to expire in the Senate. Farmers nevertheless continued to press for legislation. After the Civil War, the Federal government extended its reach. It recently reestablished a new order for labor in the Reconstruction South and transformed family law in the Mormon West. The national government could allow the harnessing of technologies so that Midwestern agriculturalists would not be subject to unjust patent laws as so often they endured capricious weather. Prairieland farmers certainly nurtured such expectations. But, of course, they would be disappointed.

D. *Technologies of Terrain—Wire, Water, and Gates*

Certain ubiquitous patents posed particular problems. Barbed wire, for example, provided a new technology for restraining cattle. It divided a vast plain into allotments in the fashion of metal hedges and allowed farmers to establish proprietary rights over their holdings. While materials from the local environment had been used to construct fences in the past, the broad expanse of Midwestern grasslands lacked the abundance of stones or, in parts, the dense timber forests utilized for enclosures along the Eastern seaboard. Moreover, farms in the Great Plains were meant from the beginning to serve as a breadbasket for other parts of the country, and therefore tended to be of larger acreage.[96] Between 1867 and 1897, some 401 barbed wire patents were issued.[97]

Drive wells, which drilled a steel tube into the ground to reach water rather than constructing wells through laborious digging, were another critical invention.[98] In 1868, a drive well patent was granted and, two decades later, every farmer had one to ten drive wells on his

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95 PHILA. PRESS, Mar. 16, 1884; PHILA. TIMES, Mar. 17, 1884.

96 Leslie Hewes, *Early Fencing on the Western Margin of the Prairie*, 71 ANNALS ASS'N AM. GEOGRAPHERS 499 (1981); Earl W. Hayter, *Barbed Wire Fencing – A Prairie Invention: Its Rise and Influence in the Western States*, 13 AGRIC. HIST. 189 (1939); HENRY D. MCCALLUM & FRANCES T. MCCALLUM, THE WIRE THAT FENCED THE WEST 3–14 (1965).

97 JESSE S. JAMES, EARLY UNITED STATES BARBED WIRE PATENTS (1966) provides a description of each patent. The Chicago Tribune describes agents of patentees fanning out throughout the region to uncover infringing drive wells. *Drive Wells. Attempts to Collect a Royalty in Minnesota and Iowa*, CHICAGO TRIB., Dec. 8, 1878, at 8.

98 JEFFREY BRANDON MORRIS, ESTABLISHING JUSTICE IN MIDDLE AMERICA: A HISTORY OF THE UNITED STATES COURT OF APPEALS FOR THE EIGHTH CIRCUIT 33 (2007); The Driven-Well Cases, 16 F. 387 (C.C.S.D. Iowa 1883); Earl W. Hayter, *The Western Farmers and the Drivewell Patent Controversy*, 16 AGRIC. HIST. SOC'Y 16 (1942).

premises.[99] The drive well was so important that its purported inventor, Nelson Green, claimed he solved the problem of sand and gravel collecting in existing wells by creating an invention that "is destined to become one of the most powerful cooperators with human progress that the country has given birth to."[100]

According to a pamphlet published about the invention, the major beneficiary would be farmers in the Midwest. "The cattle are scarcely corralled at the nightly halt, when, as if by magic, a stream of the purest water is flowing" from the pump, "and man and beast alike enjoy the luxury of a refreshing draught."[101] With unabashed boosterism, the holder of the patent argues that if the drive well was simply invented a decade ago, then urban overcrowding on the Eastern Seaboard could have been avoided as those in insalubrious cities would flock to farming prairie land.[102] Green describes his struggle to obtain the patent, and his public-minded setting of a low fixed royalty for use of the patent. However, he warned, "I intend that no person shall use it without a license under my patent; to this end, I have employed counsel to institute legal proceedings against all persons who shall use this invention without such license."[103]

One observer blamed drive wells for creating a cause around which Prairie famers mobilized against patent regulation.[104] Indeed, it was noted that the drive well did more to create hostility to our patent system than any other patent. Patent law often reflects the telling of particular histories—of technological conundrums confronting earlier mechanics, of breakthroughs by true inventors—and, of course, of private invention providing a tangible public good.

Opponents of Green's patent constructed counter-narratives which questioned his worthiness to receive this particular bundle of legal rights.[105] Green claimed to have invented the drive well when he was a colonel in the Union army during the Civil War in response to a fear that Confederate forces might poison water sources in the South. Farmers often vigorously argued that the invention therefore should be considered as belonging to the public.[106] Critics of the patent drew upon the broader history of Northern sacrifice when making claim to the public's right in the invention.[107] Moreover, Green himself was a controversial figure who seemed the antithesis of a true—in a moral sense—inventor.[108]

99 57 SCI. AM. (1888).
100 N.W. GREEN, THE AMERICAN DRIVE WELL 4 (1868).
101 *Id.* at 5.
102 *Id.* at 6.
103 *Id.* at 10.
104 *Our Patent System*, 54 SCI. AM. 270, 280 (1886).
105 Andrews v. Carman, 1 F. Cas. 868, 871–72 (C.C.S.D.N.Y. 1876).
106 *Id.* at 875–76.
107 *Id.* at 875.
108 *Id.* at 876–77.

Discharged from the army and expelled from his church for shooting a subordinate in cold blood, Green had a history of legal entanglements.[109]

The narrative of invention became increasingly murky with each retelling in the course of litigation. The drive well patent was challenged from almost every angle: as owned by the public, as invented by another prior to Green's filing for a patent, abandoned by Green, as publicly disclosed through public demonstrations prior to Green's seeking a patent, and—since a court had to admit that "it is not easy to understand how a patent for nothing but the process of making a hole in the ground could be" so well protected by law—for lack of novelty.[110] Nearly three hundred drive well patent infringement suits were pending when an Iowa court found Green's drive well patent invalid due to prior art in May 1883.[111] Yet drive wells continued to prompt litigation, and, ultimately, the reissuance of the patent was upheld by the United States Supreme Court.[112]

Barbed wire patents were as tangled a story as the wire itself. According to prevailing American law, farmers were responsible to fence out free-roving livestock with a good and sufficient fence.[113] If they failed to do so, then they would not prevail in their claims to damage caused by trespassing cattle.[114] Farmers, rather than cattleman, would bear the cost of fencing against trespass and, therefore, purchasers were especially keen on fences as a way to limit financial risk.[115]

Twenty-eight prior use suits were filed, arguing that barbed wire was invented by others.[116] It was not uncommon for claims of first invention to cluster.[117] However, there were particular reasons in the case of barbed wire. As a simple product, variations could easily be made using wire ordered from wire-drawing factories.[118] In small workshops across the prairie lands, craftsmen experimented with different designs for twists in the wire and variations in manufacturing techniques.[119] As a result, inexpensive competitors appeared throughout the Midwest from Chicago to St. Louis.[120] During the 1870s and 1880s, some fifteen

[109] *Id.* at 876.
[110] *Id.* at 871, 874–76.
[111] *A Valuable Patent Held Void: The Owners of Green's Drive-Well Beaten by a Farmers Alliance*, N.Y. TIMES, May 11, 1883, at 1.
[112] Eames v. Andrews (*The Driven-Well Cases*), 122 U.S. 40, 47, 62 (1887) (noting extensive litigation surrounding the drive-well patent and upholding the patent).
[113] *See* ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 42–47 (Harvard Univ. Press 1991) (discussing the legal rules of fencing-in versus fencing-out).
[114] *Id.*
[115] Joseph McFadden, *Barbed Wire: A Story of the West, the East, and American Ingenuity and Entrepreneurship,* 3 J. ILL. HIST. 28586 (2000).
[116] MCCALLUM & MCCALLUM, *supra* note 96, at 75.
[117] *Id.* at 75–76.
[118] *Id.*
[119] *Id.*
[120] *Id.* at 77.

different manufacturers operated in Iowa and produced less expensive barbed wire without the payment of royalties to patent holders.[121]

When it appeared that barbed wire would play a critical role in westward expansion, a trust was formed and organized by Charles Francis Washburn and Philip Moen, both of Massachusetts, and J.M. Elwood of Illinois; they organized a syndicate to purchase existing patents, creating a monopoly to control barbed wire production.[122] The syndicate's attempt to shut down competitors led to a colossal legal struggle as other manufacturers established a mutual aid association, the Barbed Wire Manufacturers Union, to bear the litigation costs of fourteen separate suits winding their way through the courts.[123] Each defendant was assessed a tax based upon the size of their wire output.[124]

The two sides squared off with their own publications. The syndicate published a periodical bolstering their claims, *Glidden's Fence Journal*, named after the individual who was purported to be the inventor of barbed wire. On the other side, Jacob Haish, a German immigrant based in DeKalb, Illinois, also claimed to hold patent rights.[125] Promoting the position of the mutual aid society, he published a competing barbed wire magazine, the *Barb Fence Regulator*.[126] The appeal to public opinion through such media suggests the ways that litigation extended beyond the courts. Such cases were about establishing competing narratives of invention. But the overall effect was to destabilize patents by raising doubts about their validity.

Finally, in 1880, barbed wire cases reached the Circuit Court of Appeals in Chicago.[127] The court identified the Hunt Patent, a successor to the Glidden patent and now owned by Washburn, Moen, and Ellwood, as the source for all subsequent inventions and improvements.[128] The threat of litigation was used to intimidate other manufacturers.[129] Armed with this decision, they linked together some forty factories which agreed to the basic rules of the trust. The syndicate required that all plain wire be purchased from Washburn, Moen, and Ellwood, a royalty would be

[121] *Id.* at 80–81. Washburn and Moen published a pamphlet which included testimonials about the quality of their barbed wire fences, the relevant patents, and a sharply worded warning of litigation to infringers. *See generally* WASHBURN & MOEN MFG. CO., BARB FENCE: ITS UTILITY, EFFICIENCY, AND ECONOMY (1876).

[122] BENJAMIN F. GUE, 3 HISTORY OF IOWA FROM THE EARLIEST TIMES TO THE BEGINNING OF THE TWENTIETH CENTURY 103 (1903).

[123] Earl W. Hayter, *An Iowa Farmers' Protective Association: A Barbed Wire Patent Protest Movement*, 37 IOWA J. HIST. & POL. 331, 336 (1939).

[124] 107 REPORTS OF CASES OF LAW IN CHANCERY ARGUED AND DETERMINED IN THE SUPREME COURT OF ILLINOIS 366 (1884). *See* Hayter, *supra* note 123, at 337.

[125] *See generally* Washburn & Moen Mfg. Co. v. Haish, 4 F. 900, 902 (C.C.N.D. Ill. 1880).

[126] JACOB HAISH, BARB FENCE REGULATOR (1877).

[127] *See generally* Washburn & Moen Mfg. Co. v. Haish, 4 F. at 902.

[128] *Id.* at 902–04.

[129] McFadden, *supra* note 115, at 296.

paid on their barbed wire patent, and no sales would be made directly to farmers. Instead, there would be a system of specially assigned dealers who would sell to consumers at a fixed price. Finally, the trust itself would prosecute all factories outside the trust for patent infringement.[130] Despite their apparent willingness to litigate, the syndicate often settled out of court in order to avoid the risk of an adverse decision that might weaken their patent monopoly.[131] Nevertheless, the immense profits to be made in barbed wire manufacture continued to attract competitors. Little capital was needed to produce the wire, and small workshops sprouted up across the Midwest to provide barbed wire for booming local markets.

Farmers were deeply unhappy with the Chicago patent decision which provided the underpinning of the trust.[132] Was this a legitimate verdict? According to one commentator, "[a] patent was only designed to secure to the inventor a reasonable compensation for his invention, and when a patent is used for any purpose beyond this, and for extortion, it becomes a public burden entitled to no more legal protection than any other intolerable oppression."[133] Had not various forms of barbed wire been in use for many years? Could "putting pricks on a wire [] be monopolized by anyone?"[134] In December 1878, farmers gathered at a convention in Des Moines and established the Iowa Farmers' Protective Association, which called for resisting "the combine." The organization decided to establish a network of local chapters and press congressional representatives to support efforts to reform patent law. In order to raise capital, the Association offered stock to "Free Wire" enthusiasts, as they were known. In 1881, they proceeded to establish a free wire factory in Des Moines under W.L. Carpenter and John Given to produce barbed wire independent of the trust—and therefore potentially in violation of the patent—and to sell their product at as inexpensive a price as possible.[135] As a fig leaf against claims that this manufacturing was blatant infringement, the Association purchased a single barbed wire patent.[136]

Attorneys were hired to protect them against the inevitable suit from the trust.[137] A joint resolution was passed by the Iowa legislature calling on the President to instruct the Attorney General to set aside the patents and reissuances held by Washburn & Moen, as far as these were

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130 GUE, supra note 122, at 103–04.
131 McFadden, *supra* note 115, at 296.
132 *The Barbed-Wire Monopoly in Iowa*, CHI. DAILY TRIB., Aug. 12, 1881, at 4.
133 *Id.*
134 *Barbed Wire. Movement in Iowa in Opposition to the Monopoly*, CHI. DAILY TRIB., May 31, 1881, at 6.
135 GUE, *supra* note 122, at 104.
136 *Fencing the Prairies. Importance to the Treeless States of the Pending Legislation on Barbed Wire*, CHIC. DAILY TRIB., Jan. 26, 1883.
137 GUE, *supra* note 122, at 104–06.

fraudulent, and to restrain this company from seeking to prosecute infringement claims.[138] The Iowa legislature also appropriated $5,000 to aid the Protective Association.[139] The idea of a state legislature appropriating funds from the public coffer to support patent infringement was remarkable, though a preliminary injunction was obtained to prevent this money being paid.[140] The struggle between the trust and the Protective Association was immensely costly. A.B. Cummins, the attorney for the Protective Association and later an Iowa governor and senator, won two decisions in 1882 finding that the trust had "illegally broadened" their patents as reissuances.[141] The trust was forced to shift from litigating on reissued patents, and instead had to sue on the basis of original patents.[142] Those supporting the free wire movement urged consumers to boycott barbed wire produced by Washburn & Moen.[143] One local leader wrote, "Our forefathers had spunk enough to cast tea into the sea . . . Have any of our farmers spirit enough not to use one pound of this wire which has the blood of liberty staining it?"[144] Frustrated with their inability to shut down producers, Washburn & Moen threatened suits against users and dealers in what they considered an infringing wire.[145] The size of the stakes can be seen in the extraordinary legal costs of the barbed wire litigation, which was estimated at a million dollars.[146]

Barbed wire litigation extended for eighteen years.[147] The mass political mobilization through such organizations as the Iowa Farmers' Protective Association and the Grange, the innumerable legislative proposals, and the contentious debate in newspapers and pamphlets created an environment that made operating rules allocating patent rights to inventors ever more difficult.[148] In *Washburn and Moen Manufacturing v. Beat 'Em All Barbed Wire Co.*, which was commonly known as the Barbed Wire Patent case and which reached the United States Supreme Court in 1892, the Court discounted the testimony of

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[138] H.R.J. Res. 9, 19th Gen. Assemb., Reg, Sess. (Iowa 1882).
[139] Christopher Beauchamp, *The First Patent Litigation Explosion*, 125 YALE L.J. 848, 926 (2016) (citing BENJAMIN F. GUE, 3 HISTORY OF IOWA: FROM THE EARLIEST TIMES TO THE BEGINNING OF THE TWENTIETH CENTURY 141 (1903)).
[140] *BARB WIRE. A Row About its Manufacture at Des Moines*, CHI. DAILY TRIB., Dec. 27, 1881, at 4.
[141] MCCALLUM & MCCALLUM, *supra* note 96, at 82.
[142] *Id*.
[143] *Id.* at 81.
[144] *Id.* (quoting local leader's letter to Iowa State Register).
[145] *Id.* at 82–83.
[146] *The Barbed Wire Patents*, N.Y. TIMES, Feb. 15, 1889, at 1.
[147] Joseph M. McFadden, *Monopoly in Barbed Wire: The Formation of the American Steel and Wire Company*, 52 BUS. HIST. REV. 465, 469 (1978).
[148] *See* Earl W. Hayter, *The Patent System and Agrarian Discontent, 1875–1888*, 34 MISS. V. HIST. REV. 59, 73 (1947).

twenty-four witnesses who provided testimony of prior invention.[149] "Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be depended upon for accurate information."[150] Indeed, this case, as we shall see, became an important precedent in trying to clear away the underbrush of competing narratives of multiple claims to invention.

There were no separate spheres—one set of arguments fought through the publication of pamphlets, legislative petitions, and town hall meetings, and the other took place in the secluded atmosphere of the courtroom. Free wire advocates only needed to show the murky origins of patents to make their point that this was a system lacking clear guidelines and easily manipulated by special interests. The length of litigation, nearly two decades in the case of barbed wire, contributed to the uncertainty surrounding patents.[151] The issued patent was supposed to be as sure a promised grant of property rights as a deed for land. Yet litigation functioned to destabilize the patent as property. Free wire proponents, infringers, competitors, and even those lawyers and agents contending over rights, operated in a nether land of unstable property. True, *stare decisis* was ultimately intended to set the matter to rest and to establish the boundaries of patent as neatly as barbed wire demarcated land. In the 1870s and 1880s, however, there was always another litigation case just over the horizon.[152]

III. POLITICAL BEDFELLOWS

Farmers took to organizing for a number of reasons. They had a lengthy list of complaints against railroads and their monopolistic charges, against middlemen, and against politicians whom the farmers were convinced ignored them.[153] Throughout the 1870s and 1880s, agricultural prices for corn and wheat fell due to a rise in supply after the Civil War populations migrated to the Midwest, virgin land was opened for farming, and railroads facilitated the transportation of more agricultural products to markets.[154] As a result, the gap between the amount farmers were paid for their produce and cost of farm implements, such as reapers, mowers, and plows, widened. Not surprisingly, farmers turned to political agitation. In light of worsening agricultural conditions, the Grange attracted a larger membership and became ever more

[149] Washburn & Moen Mfg. Co. v. Beat 'Em All Barbed-Wire Co., 143 U.S. 275, 287 (1892).
[150] *Id.* at 284.
[151] *See generally* McFadden, *supra* note 147.
[152] *See* Hayter, *supra* note 148, at 59.
[153] *Id.*
[154] *Id.* at 60–61.

vociferous in advocating for agrarian interests. Much of its focus was on the costs related to railroad shipping and warehouse charges for grain storage.

Patent law also became a critical part of the Grange's political repertoire.[155] It took a number of steps to embrace agrarian displeasure with the patent system as its own cause. Standing committees significantly dedicated to patent rights were established at various state Granges.[156] The committee's name was telling, for it suggested that users, as well as owners, had a bundle of rights. As early as 1874, the Grange agitated for patent reform by petitioning Congress.[157] Its focus was upon limitations in patent terms and conditions for renewal, compulsory licensing at set royalty raters, and protection for innocent infringers.[158] Much of the Grange's political activity—its standing committees and drafting of memorials—took place at large gatherings. Following set rituals, gatekeepers required secret passwords prior to participating in meetings. Although it was intended to appeal to a broad constituency of farmers, the Grange's hierarchical brotherhood identified seven degrees of status: Faith, Hope, Charity, Fidelity, Pomona, Flora, and Ceres. Grange officers were identified by their sashes.[159]

Speaking directly to its agrarian constituency, the Grange circulated information among farmers about patent fraud. More significantly, the Grange established a Mutual Defense Association to battle the collectors in court. It was a fund, the Grange said, necessary to protect against the "vampires" who unscrupulously swindle farmers in the name of upholding patent rights.[160] The Grange was successful in defeating infringement suits involving the Teal patent on a sliding gate.[161] It estimated that there would have been 2,700 Teal patent infringement suit judgments against farmers at a cost of one hundred dollars each, and therefore the Grange claimed they saved their members $2,500,000.[162]

The idea of a mutual defense fund was consistent with other forms of agrarian collective action. Local Grange organizations established mutual fire-insurance companies and cooperative purchasing of

[155] *See id.* at 77.
[156] MICHIGAN STATE GRANGE, PROCEEDINGS OF THE SIXTEENTH ANNUAL SESSION OF MICHIGAN STATE GRANGE OF PATRONS OF HUSBANDRY: DECEMBER 11, 12, 13, 14, 1888, at 12 (1888).
[157] For an example of a memorial, see NATIONAL GRANGE, JOURNAL OF PROCEEDINGS OF THE THIRTEENTH SESSION OF THE NATIONAL GRANGE OF THE PATRONS OF HUSBANDRY 120 (1879).
[158] DENNIS SVEN NORDIN, RICH HARVEST: A HISTORY OF THE GRANGE, 1867–1900, at 148–449 (1974); *see also* Buck*, supra* note 93, at 119.
[159] NORDIN, *supra* note 158, at 8–11.
[160] NATIONAL GRANGE, *supra* note 157, at 19.
[161] MICHIGAN STATE GRANGE, PROCEEDINGS OF THE SIXTH ANNUAL SESSION OF MICHIGAN STATE GRANGE OF PATRONS OF HUSBANDRY: DECEMBER 10, 11, 12 AND 13, 1878, at 106 (1878); BUCK, *supra* note 93, at 169.
[162] NATIONAL GRANGE, supra note 157, at 107.

agricultural machinery. Defense funds were not simply a mutual aid society. They employed counsel and guided lawsuits. By acting collectively—much as they had in negotiating railroad freight rates or purchasing farm implements—the Grange could press what might be called "cause litigation" through the courts.[163]

Patent reform legislation had two significant consequences. First, it deepened the shared interests of mechanics, a network of patent agents, and certain corporations. Inventors utilized their journals and social circles to muster support against the proposed legislation. Mobilization included a nationwide petition campaign. Mechanics had a common cause with agrarian grievances against intermediaries. Representing the interests of inventors, the United States Patent Association, for example, published a spirited defense of the Patent Office. But they urged the Patent Office to impose a licensing examination on agents and to speak directly to farmers through pamphlets.

Secondly, the rhetoric of patent protection shifted to public welfare; "the main cause of difference between the civilized man and the savage," claimed one writer, "[is] tools and machinery."[164] Patent law was a hallmark of civilization, "based on public policy, not on justice to the inventor."[165] In an 1884 article, the Scientific American set out to expose "the plot against patents."[166] According to this article, the railroad companies, which paid "hundreds of thousands of dollars every year" in royalties were responsible for the attack on patents, and have deluded "the grangers, making them to think that inventors, who are really their best friends, are their enemies."[167]

Of course, if political mobilization, litigation, and new proposed legislation should fail, there was always the ultimate weapon against patent abuse–the call for the complete abolition of patents. In 1880, the Iowa State Agricultural Society sent a petition to Congress which stated that,

the outrages perpetrated by the aid of patent right laws or by their abuses are crying aloud for relief; and that we request our members of Congress to so amend them as to remedy the evils or, if this cannot be done, that their evils being so much superior to their benefits, that they should be totally abolished.[168]

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[163] Opponents of broader patent reform argued that the success of such legal defense funds' "clubbing together of the defendants" created a sufficient remedy to vexatious and frivolous patent suits. *Patent Law and Equity*, 42 SCI. AM. 320, 320 (1880).

[164] A.F. Andrews, *The Rights of Inventors and the Policy of Patent Law*, 50 SCI. AM. 149 (1884).

[165] *Id.*

[166] *The Plot Against Patents*, 50 SCI. AM. 176 (1884).

[167] *Id.*

[168] 23 IOWA REG. (Jan. 13, Feb. 9, Feb. 23, & Mar. 2, 1881).

But this was a *bête noire*, which was employed as a threat only if United States patent law was not reformed.

During the early nineteenth century, patents seemed ascendant. In 1791, France adopted a statutory basis for patents of invention. The French statute declared an absolute right of property existed in inventions. Austria legislated patent protection in 1810, Russia in 1812, Prussia in 1815, Belgium and the Netherlands in 1817, and Spain in 1820. But the translation of theoretical property rights into legal claims with sanctions for infringers created backlash by the 1850s. In the middle of the nineteenth century, German economists proposed the abolition of the patent system. Holland's legislature repealed their 1817 patent law in 1869, and, claiming the abolition of patent was conducive to free trade, did not reestablish a patent system until 1910. In 1866 and 1882, the Swiss public voted down the passage of federal legislation to protect industrial property.[169] Victorian England had more than its share of anti-patent agitators, many of whom called for its abolition.[170]

Although the American anti-patent movement operated in the local terrain of the Midwest, it was keenly aware of the European ferment over patent. Yet United States patent activists gestured towards patent abolition as a menace, not as a serious option. Despite the radical rhetorical edge to many of the farmers' arguments, what they really demanded was not the end of the patent system, but a defense for innocent infringers. Agrarian populists were often pro-government regulation. They sought *more* regulation for the railroads and a larger postal service.[171] Many of the legislative proposals resembled the Grange's call to amend the patent law "as would give protection to innocent purchasers of patented articles from such cruel and unjust extortions."[172] The reliance on a good faith argument was really about how to address issues of the asymmetry of knowledge and less about overhauling the basis for an incentive system for invention. Defense of the innocent was at the core of the legal defense fund. Over time, rural activists turned away from Congress and towards cause lawyering in the courts.

In the winter of 1878, as Steven Usselman and Richard John describe, the lame duck Republican Senate turned to a proposed patent

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169 Janis, *supra* note 11, at 943; EDITH TILTON PENROSE, THE ECONOMICS OF THE INTERNATIONAL PATENT SYSTEM 14–15 (1951). Under the Swiss Constitution, a popular referendum was required to establish federal patent law. As a result of these two defeats for proponents of the new legislation, Switzerland did not extend protection to patents until 1887. Christine MacLeod, *Concepts of Invention and the Patent Controversy in Victorian Britain*, *in* TECHNOLOGICAL CHANGE: METHODS AND THEMES IN THE HISTORY OF TECHNOLOGY 137–54 (Robert Fox ed., 1996).

170 MAUREEN COULTER, PROPERTY IN IDEAS: THE PATENT QUESTION IN MID-VICTORIAN BRITAIN 57 (1991).

171 Wayne E. Fuller, *The Populists and the Post Office*, 65 ARGIC. HIST. 1–16 (1991).

172 NATIONAL GRANGE, supra note 157, at 28.

bill.[173] Ultimately, due to delaying tactics, the bill would be passed so late as to be impossible to reconcile with the House version and, therefore, never became law. But it was a serious legislative effort that was very different from the host of patent reform bills that the Grange had sent over the years to Congress. The 1878 bill was more detailed and comprehensive. Indeed, as a proponent noted in testimony before a House Committee, a thousand printed copies of the draft bill had been sent to patent attorneys around the country requesting comments for revision.[174] This proposed law was supported by an unlikely combination of the Grange and railroads. An opponent of the bill in Congress noted that the Grange element, which was organized to fight the railroads, was cooperating with the latter in the effort to limit the rights and remedies of inventors and stated, "it is a striking coincidence that this movement to change our laws was inaugurated by the railroad combination."[175] Going further, the opponent called it "class legislation of the worst kind."[176]

Railroads, longtime political foes of the Grange because of their stiff rates, found themselves subject to vexatious patent lawsuits because of the complex web of patents they employed.[177] The extensions of lines through the interior of the United States had multiplied the use of any particular invention and, as a consequence, made them more vulnerable to patent infringement suits.[178] Moreover, a new court decision determined damages for infringement of "double-acting" brakes according to the "doctrine of savings," which was based on the amount saved by the infringer and could reach a significant sum.[179] The railroads were clearly nervous. They turned to the Grange in drafting a substantial patent statute which would address their concerns. Section 2 of the draft law shifted the standard for damages from the doctrine of savings to a licensing fee at the discretion of the court.[180] It is not clear from the draft statute whether this was an issue of law to be decided by a judge or, since it is based upon a record of existing transactions, whether it is a fact-based issue within the scope of the jury privilege. However, it is clear that the doctrine of savings would be overruled by Congress. The prospect of

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173 Steven W. Usselman & Richard R. John, *Patent Politics: Intellectual Property, the Railroad Industry, and the Problem of Monopoly*, 18 J. POL'Y HIST. 96 (2006).
174 *Arguments*, *supra* note 32, at 237 (argument of J.H. Raymond, Attorney, Western Railroad Association).
175 *Id.* at 72 (argument of C.S. Whitman, Representative, Bar Association).
176 *Id.* at 69.
177 FOURTH ANNUAL REPORT OF THE EXECUTIVE COMMITTEE TO THE WESTERN RAILROAD ASSOCIATION 6–10 (1872) [hereinafter FOURTH ANNUAL REPORT] (detailing the extensive patent litigation involving the railroad industry).
178 Usselman & John, *supra* note 173, at 105.
179 *See id.* at 105–07; Sayles v. Chicago & N.W.R. Co., 21 F. Cas. 600, 602 (C.C. N.D. Ill. 1871); FOURTH ANNUAL REPORT, *supra* note 177, at 6–10 (detailing the extensive patent litigation involving the railroad industry).
180 S. 300, 45th Cong. § 2 (1878).

liability would be reduced to what is essentially a compulsory license based upon the use by other parties.[181]

However, the Grange was able to incorporate many of the proposed statutes that they had submitted to Congress over the previous few years. These odd political bedfellows, agrarian radicals and railroad plutocrats, forged a serious piece of legislation that strongly supported user rights. It limited recovery to infringement occurring four years prior to the filing of a lawsuit.[182] Reissued patents would be subject to scrutiny, which would allow for the "revision, [] restriction, and rejection" of claims much like the original patent and would bar the introduction of new material into the reissued patent.[183] The reissued patent must be the same as the original invention. Unclaimed elements of a patent now claimed through a reissuance would be immunized from suit as a prior use right.[184] If an individual were to bring an infringement suit without knowledge of infringement or with unreasonable delay, then the patent itself might be voided by the court acting in equity.[185] The bill included stiff fines and punishment of up to one year of prison for those conveying patents with the intent to defraud.[186]

Another section requires patent holders to pay fees at the end of four and nine years in order to retain their patents.[187] This fee was intended to weed out "trivial, impracticable, and invalid patents . . . and from those which become of value late in their existence, and then only for the purpose of infringement suits and speculations."[188] The drafters did not intend this proposed major overhaul of United States patent law to be a final stage in their thrust towards reform. In fact, the concept of "innocent infringement" was seen as fairly open, and promoters of the 1878 bill hoped that courts—much as they had done with fair use—would refine and expand its definition.[189]

Yet it was not only the collaboration between the railroads and the Grange that was remarkable. The railroads adopted tactics parallel to the Grange's use of cooperation to counter the power of patent holders. In 1867, railroads combined to form the Western Railroad Association, an organization that would collectively represent *corporate* user rights. By 1877, the Western Railroad Association was comprised of fifty-seven dues-paying railroads. Much like a private version of the Patent Office, it

[181] S. REP. NO. 45–116, at 5 (1878). It is not clear who would fix the amounts of the licensing fees. According to the Congressional testimony, it might well be the jury.
[182] S. 300, 45th Cong. § 1 (1878).
[183] *Id.* § 5.
[184] *Id.* § 6.
[185] *Id.* § 9.
[186] *Id.* § 14.
[187] *Id.* § 11.
[188] *Arguments*, *supra* note 32, at 233 (statement of J.H. Raymond).
[189] *Id.* at 125.

functioned to evaluate the worthiness of patents. The Association similarly retained models of inventions, books, and papers related to railroad patents.[190] By 1877, the Association had issued 349 reports and settled forty-one patent infringement claims.[191] According to the standing rules of the organization, members were urged not to respond independently to infringement suits and instead rely upon the Association to provide counsel.[192] Moreover, the rules provided that employees of member railroads should submit new inventions to the Association to determine whether these would infringe existing patents.[193] Both the Grange and Western Railroad Association were legal knowledge cooperatives. They established legal defense funds, evaluated the worth of patents, and worked to promote patent user rights.

Did this Prairie brushfire war against patent law make a difference? Some of the agrarian skepticism about patents seemed to influence courts. During the 1880s, the United States Supreme Court upheld plaintiffs in less than twenty-five percent of patent cases.[194] In the 1882 case, *Atlantic Works v. Brady*, the United States Supreme Court warned against extending a grant of "monopoly for every trifling device, every shadow of a shade of an idea."[195] Such an extension of patent creates "a class of speculative schemers."[196] This judicial rhetoric sounds terribly close to the speeches one might have found in barn meetings against carpetbagger urban swindlers who crisscrossed the countryside threatening lawsuits against innocent farmers. Indeed, even more striking is the Supreme Court's decision to limit the broadening of claims through reissuance to two years.[197]

In *Miller v. Brass*, reissuance was identified as a disfavored doctrine.[198] The Patent Office responded, and reissuances declined from 600 per year in the late 1870s to under 100 by 1887.[199] Railroads, as well, were more successful changing patent policy in courts than they were with the failed bill of 1878. The Supreme Court reviewed the patent infringement case concerning double-acting brakes and reduced the scope

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190 FOURTH ANNUAL REPORT, *supra* note 177, at 15.
191 *The Railroads*, CHI. TRIB., Jan. 10, 1877, at 8.
192 FOURTH ANNUAL REPORT, *supra* note 177, at 7.
193 WESTERN RAILROAD ASS'N, ANNUAL REPORT OF THE EXECUTIVE COMMITTEE (1895).
194 H. R. Mayers, *The United States Patent System in Historical Perspective*, 3 PAT. TRADEMARK & COPYRIGHT J. RES. & ED. 33, 34–36 (1959).
195 Atl. Works v. Brady, 107 U.S. 192, 200 (1882).
196 *Id.*
197 Miller v. Brass, 104 U.S. 350, 352 (1881). This judicial decision has been codified as Patent Act of July 19, 1952, Pub. L. No. 82–593, 66 Stat. 792 (codified as amended at 35 U.S.C. §§ 1–318, § 251(d) (2006) ("No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent.").
198 Miller v. Brass, 104 U.S. at 352.
199 Beauchamp, *supra* note 28, at 892.

of the original patent.[200] In general, the federal courts seemed like a friendlier territory for railroads confronting a host of issues, including patent suits.[201]

Those agitating for reform of patent law linked their fortunes to a more extensive agrarian social movement. Although the ability to build upon existing broad organizational frameworks led to many early successes, the concern with patent followed agrarian organizations into a steep decline. By 1900, only about 98,000 families were associated with the Grange.[202] Organizational problems, internal differences exacerbated by the rise of nativism and racist populism in the south, and the seeming inexorability of the decline of agriculture as a dynamic sector in the economy contributed to the difficulties in mobilizing rural America. Farmers splintered along geographic, ethnic, and racial lines. Moreover, the rise of antitrust as an alternative also had an effect in dampening anti-patent agitation.

Not only patent users but also patentees themselves grumbled about the efficacy of the patent system. Inventors believed that they could not rely upon the patent itself, and the cost of enforcing rights through litigation was enormous. According to an 1894 article in the Yale Law Journal, part of the problem was that too many trivial patents were being issued.[203] The author suggests that these should be challenged in an *ex parte* hearing prior to issuance by a government attorney, whose task would be to challenge the validity of *every* proposed patent.[204] The government must represent the peoples' stake—both inventors *and* users—in patents that are truly worthwhile to protect. Is this not the ultimate user-right?

CONCLUSION

What does this remarkable narrative of America's first major patent social movement tell us about our own normative landscape? This is the story of how patent law came from the outside and was suddenly imposed upon Prairie agrarians—who constructed a social movement in response. The effect was to make what seemed like a settled area of law unexpectedly fraught. Its metes and bounds were uncertain and

[200] Ry. Co. Company v. Sayles, 97999 U.S. 554, 563–64 (1878).
[201] *Id. See generally* Philip L. Merkel, *The Origins of an Expanded Federal Court Jurisdiction: Railroad Development and the Ascendancy of the Federal Judiciary*, 58 BUS. HIST. REV. 336 (1984).
[202] MICHAEL MCGERR, A FIERCE DISCONTENT: THE RISE AND FALL OF THE PROGRESSIVE MOVEMENT IN AMERICA, 1870–1920, at 29 (2003).
[203] D.J. Brewer, *The Patent System*, 3 YALE L.J. 150, 151 (1894).
[204] *Id.* at 154–55; John S. Perry, *A Defense of the United States Patent System*, *reprinted in* 1 PUBLICATIONS OF THE UNITED STATES PATENT ASSOCIATION 89 (James R. Osgood & Co. 1875); H. Howson, *Our Country's Debt to Patents*, *reprinted in* 1 PUBLICATIONS OF THE UNITED STATES PATENT ASSOCIATION 108 (James R. Osgood & Co. 1875).

intangible, its scope was the subject of grassroots political agitation, and the constant jostling between state and federal jurisdictions led to uncertain legal outcomes. A notable enforcement gap revealed the striking difference between claimed rights and the ability to police those rights. It is also a story of unintended consequences. Populist farmers failed to implement their novel, sometimes utopian, conception of patent law through popular mobilization and legislative drafting—but they showed the power of the public to destabilize patents even when they were granted by the state.

In our own time, we have struggled with the issue first raised by nineteenth-century farmers. Should patent users—as well as owners—have rights? The America Invents Act, passed by Congress in September 2012, was intended to overhaul United States patent law.[205] One of its most notable changes was the introduction of an expanded prior user rights defense to an infringement suit. Such a defense permits an earlier user of an invention to continue its uninterrupted commercial use while simultaneously allowing the later inventor to obtain a patent that is enforceable against all other parties. The notion of user rights seems to stretch far beyond the usual confines of a proprietary model for patent ownership.[206] This vesting of rights has elicited considerable controversy because it suggests stepping outside of the usual model of intellectual property law. An individual consumer, not just the inventor or owner of an invention, might hold a stake under patent law. But what are these rights? Who can claim them? And when do they pertain in a patent infringement case?

During the past two decades, there has been increasing interest in the idea of user rights for both copyright and patent scholars. Advocates for less capacious definitions of intellectual property rights urge the making of a robust doctrine of user rights, such as promoting more extensive fair use exceptions and limitations.[207] But there is nothing new about user rights. Recognition of user rights was part an expansive vision of intellectual property invented by Midwestern farmers in late nineteenth-century America. User rights were just one way that farmers sought a radical refashioning of patent law. Their intellectual property social movement showed how popular mobilization might reshape law.

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[205] Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284, 292 (2011). A more limited prior user rights defense was enacted in the American Inventors Protection Act of 1999, 35 U.S.C. § 273.

[206] *See generally* Keith M. Kupferschmid, *Prior User Rights: The Inventor's Lottery Ticket*, 21 AIPLA Q.J. 213 (1993); Gary L. Griswold & F. Andrew Ubel, *Prior User Right—A Necessary Part of a First-to-File System*, 26 J. MARSHALL L. REV. 567 (1993).

[207] Julie E. Cohen, *The Place of the User in Copyright Law*, 74 FORDHAM L. REV. 347 (2005); Jane C. Ginsburg, *Copyright and Intermediate User's Rights*, 23 COLUM. VLA J.L. & ARTS 67 (1999).

The greatest legacy of this remarkable, historic moment might be how, as never before, patent became politics.