The Emergence of Classical American Patent Law

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Introduction

One enduring historical debate concerns whether the American Constitution was intended to be "classical." Richard Epstein has argued forcefully that the Constitution was created as a "classical liberal" document, but after a century and a half it was hijacked by "progressives."\(^1\) I believe that this characterization is historically mistaken. The Constitution as written was distinctively "pre-classical," and began to be interpreted more classically only during the 1830s and after.\(^2\)


As used here, the terms "classical" or "classical liberal" refer to a theory of statecraft that maximizes the role of private markets and minimizes the role of government in economic affairs. Some advocates, including Epstein, believe this classicism rests on a conception of an a priori social contract, in which each participant agreed to be governed but also to give up as few individual rights as possible.\(^3\) Others, including myself, believe that the conception of a social contract barely influenced American Constitutional thought, including that of the Framers and even the advocates of substantive due process, which represented the high water mark for classicism.\(^4\)

The historical Constitution envisioned an active role for the government in promoting economic development. To be sure, that role was different from the one we envision today, with a large public budget, deficit spending, and numerous government agencies involved in promoting growth. Rather, pre-classical theories of economic development advocated for heavy government contribution to private entrepreneurs to encourage construction of infrastructure and technology. This included tax exemptions, bounties, or guarantees of profitability through the creation of exclusive or monopoly rights.

Constitutional classicists came to reject this view of public involvement in the economy. The most central and powerful proposition of classical constitutionalism is that the government's role in economic development should be minimal. First, private rights in property and contract exist prior to any community needs for development.\(^5\) Second, if a particular project is worthwhile the market itself will make it occur. The only exception is a tiny subset of public goods.\(^6\) Third, when the government attempts to induce development by creating exclusive


\(^4\) Hovenkamp, Inventing Classical Constitution, supra note 2 at __.

\(^5\) Epstein, Classical Liberal Constitution, supra note 1 at 20.

\(^6\) See, e.g., Maine Chief Justice John Appleton's statement in In re Opinion of the Justices, 58 Me. 590, 592 (1871):

"Capital naturally gravitates to the best investment. If a particular place or a special kind of manufacture promises large returns, the capitalist will be little likely to hesitate in selecting the place and in determining upon the manufacture."
rights, tax benefits, or other perquisites, politics inevitably distorts the decision making. The result is excessive creation, with a bias favoring politically well placed interest groups.  

Whatever value classicism may have as a theory of statecraft, it was not a part of the historical Constitution nor of its dominant early interpreters. To the extent classicists made their views known at the time, they were resoundingly rejected. Only with the rise of the Jackson era in the 1820s and 1830s did Constitutional interpretation begin to become more classical through a series of doctrinal changes that stretched across the balance of the nineteenth century. These included a repudiation of Marshall era Commerce Clause and Contract Clause jurisprudence, and the development and short life of the Constitutional doctrine that taxes may be assessed only for a "public purpose." In addition was the rise of inverse condemnation doctrine in the 1870s and after, largely under state constitutions, which limited economic development or ensured that it would pay the costs it imposed upon others. The capstone was the rise of substantive due process or "liberty of contract," initially in the state courts but later migrating to federal courts. Many of these changes did not occur until after the Civil War.

Most writing about this constitutional history has ignored the patent system. That oversight is serious. The Constitutional provisions historically most concerned with the role of government in economic development were the Commerce Clause, the Contract Clause, and

\[\text{\textsuperscript{7}}\text{ EPSTEIN, CLASSICAL LIBERAL CONSTITUTION, supra note 1 at 22. See Hovenkamp, Inventing the Classical Constitution, supra note 2 at \_}\]

\[\text{\textsuperscript{8}}\text{ See id. at \_}\]

\[\text{\textsuperscript{9}}\text{ Id. at \_}\]

\[\text{\textsuperscript{10}}\text{ Id. at \_}\]

\[\text{\textsuperscript{11}}\text{ Id. at \_}\]

\[\text{\textsuperscript{12}}\text{ Id. at \_}\]


\[\text{\textsuperscript{14}}\text{U.S. Const., Art. I, Section 8, cl. 3.}\]

\[\text{\textsuperscript{15}}\text{U.S. Const., Art. I, Section 10, cl. 1.}\]
the Patent, or Intellectual Property, Clause. Additionally, all three clauses were interpreted to address the ways that governmental power over the economy should be allocated between the federal government and the individual states. For patent law, a century and a half of federal supremacy has obscured that fact.

The Fifth Amendment Takings Clause was also relevant to economic development. Throughout most of the nineteenth century, however, it applied only to the federal government and was concerned almost exclusively with the exercise of eminent domain power for such things as rights of way. Only in the 1870s courts interpreting state constitution takings clauses became much more involved in ensuring that state sanctioned economic development paid its full costs, even if eminent domain was not involved.

Historically, Supreme Court decisions interpreting both the Contract Clause and Patent Clause considered whether government created exclusive rights could be used to encourage development. States had the power to issue monopoly grants already during the Colonial Era, and neither the Articles of Confederation nor the Constitution ever took that power away. Under the Articles of Confederation, which were in force from 1781 until the Constitution was ratified in 1789, the federal government had no power to issue patents. The states retained that power and issued exclusive rights in corporate charters and for patented inventions more or less interchangeably. Today we do not think of the exclusive right created by a patent and the exclusive franchise given to a railroad to operate between too points as having many similarities. But this was not always so.

From the Colonial period until the mid-nineteenth century American legislatures and courts conceived of the patent as an active tool of economic development. States in particular granted patents in anticipation that the grantee would actually develop some work of public improvement. This conception of the patent was distinctly "pre-classical" in the sense that it envisioned considerable state involvement in ensuring that granted patents were used in socially beneficial ways. In addition, state issued patents, but not federal patents, were issued to "promoters" -- that is, to those who had not really invented anything new, but rather promised to install technology or infrastructure in a new place.

A few decades later a much more classical conception of the patent emerged, as a property right pure and simple. Questions about whether and how to employ a patent were

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16 U.S. CONST., Art. I, Section 8, cl. 8.
17 U.S. CONST. amend. V.
18 Hovenkamp, Inventing Classical Constitution, supra note 2 at __.
19 Id. at __
20 See discussion infra, text at notes __.
lodged almost entirely with its owner, who at the high point of patent classicism even had the power to use patents to keep technology off the market -- precisely contrary to what the original framers of the provision had in mind.\footnote{21}{See discussion infra, text at notes __.}

One important consequence of this change was that the link between patents and government involvement in economic development was broken. That development haunts patent law to this day, giving us formal patent doctrine that is largely indifferent to how patents affect economic progress in particular markets. Instead, patent lawyers and judges behave much more like old fashioned property lawyers, generally obsessed with validity of title or location of boundaries, but rarely engaging broader questions about the relationship between the patent system and economic growth. Beginning in the 1890s first the states and later federal law reacted against important elements of this patent classicism, mainly by imposing limits on patent licensing. But these negative provisions were intended to limit monopolistic power and abuse. They never succeeded in restoring the affirmative developmental obligations inherent in the original patent system.\footnote{22}{See discussion infra, text at notes __.}

The Changing Conception of the American Patent

The earliest American patents for inventions were a far cry from the private property rights model that predominates today. Historically, the American colonies and later the states viewed the patent as an active policy tool for economic development. Just as the early American states viewed corporate charters as granting private entrepreneurs a special right or privilege to induce the creation of infrastructure,\footnote{23}{See HERBERT HOVENKAMP, ENTERPRISE AND AMERICAN LAW, 1836-1937 at 17-41 (1991).} the patent was an inducement to introduce useful technology. Under this model both corporate charters and initially patents were granted selectively to private developers who promised to furnish the State with something that would contribute economic growth or infrastructure.

Prior to the first federal Patent Act, patents were issued directly by colonial and later state legislatures. The legislative grant sometimes identified as the earliest American patent was issued by the colony of Massachusetts Bay in 1641, giving Samuel Winslow an exclusive right to use a certain process to make salt. The originator of the grant was the Massachusetts General Court, which was the colony's legislative body.\footnote{24}{SCIENTIFIC AMERICAN HANDBOOK RELATING TO PATENTS, CAVEATS, DESIGNS, TRADEMARKS, ETC. 42 (rev. ed. 1908).} There is some evidence that Winslow initially planned to protect his process as a trade secret, but then agreed to disclose it in exchange for a
ten year exclusive right from the General Court.\textsuperscript{25} The patent was conditioned on the patentee's actual establishment of saltworks employing the patented method within one year of issuance. In addition it expressly placed no limits on the ability of outsiders to import salt into the Colony.

At least a half dozen colonies issued patents prior to the revolution, although the number was relatively small.\textsuperscript{26} After the Revolution the United States was governed for seven years (1781-1788) by the Articles of Confederation, which did not grant the federal government any power to issue patents. Just as corporate charters, patents were granted directly by state legislatures and almost always for the purpose of facilitating specific works of public improvement.\textsuperscript{27}

The first federal Patent Act, enacted in 1790, required applicants to provide a written description, together with drafts or models distinguishing the applicant's invention from prior art. The applicant had to petition the Secretary of State, the Secretary of War, and the Attorney General,\textsuperscript{28} who were required to examine the application and then at least two had to agree that the patent should issue. The statute provided almost nothing in the way of substantive or procedural review standards. This procedure proved to be extremely cumbersome, and only 57 patents issued under the Act.\textsuperscript{29} The substantially revised 1793 Act simplified the process, eliminating substantive government review and requiring only registration by the applicant. While approval by the Secretary of State was required, review was limited to ensuring that the application was in good order.\textsuperscript{30} The statute gave the Secretary no authority to examine prior art or assess the proposed invention based on novelty, usefulness, or any other factor outside of the application record. It also assessed treble damages for infringement, but apparently granted them only to patentees who had commercialized their invention or licensed it out. Damages were

\textsuperscript{25}\textsuperscript{BUGBEE, GENESIS, supra note 13 at 58.}


\textsuperscript{27} For a catalog, see Pasquale J. Federico, \textit{State Patents}, 13 J. PAT. & TRADEMARK OFF. SOC'Y 166, 167-69 (1931). However, Federico's article does not distinguish which of the many grants he describes were true inventions and which were promises to develop locally technologies that had already been invented.

\textsuperscript{28} During the brief period the 1790 Act was in force these were Thomas Jefferson (State), Henry Knox (War), and Edmund Randolph (Attorney General).


\textsuperscript{30} Patent Act of 1793, Ch. 11, 1 Stat. 318-323 (February 21, 1793).
based on the "price, for which the patentee has usually sold or licensed to other persons, the use
of the said invention...."31 A Senate Report issued nearly forty years later upon passage of the
heavily revised 1836 Patent Act described patent granting under the 1793 Act as "promiscuous."32 Nevertheless, this approach was largely consistent with Jefferson's wish that, while the standard for patentability be high, actual administrative examination of patents be
minimal, with questions of validity, including novelty, assessed mainly by the courts subsequent
to patent issuance.33 The result was that patentees lost as many as 75% of litigated cases.34

That Jacksonian coalition of the 1820s and 1830s opened the door through which
economic classicism entered American public policy and Constitutional thought.35 Andrew
Jackson became the symbol for a diverse combination of social, economic, and religious
outsiders, united mainly in their opposition to the insider Federalists and Whigs who had
dominated national politics and business.36 For them, both the liberal granting of exclusive
privileges in corporate charters and the nearly unconstrained granting of patent rights were
unacceptable. The Marshall Court's strong interpretation of the Contract Clause largely forbade
the states from reneging on privileges contained in corporate grants. Jacksonians increasingly
saw them as threatening to create a permanent class of economic elites, excluding everyone
else.37 The problem with federal patents, by contrast, is that the grants were egregiously
excessive, inconsistent with the emergent classicism of the day that believed monopoly
privileges should be highly exceptional.

31793 Act. Id. at § 5.
34ZORINA KHAN, THE DEMOCRATIZATION OF INVENTION: PATENTS AND COPYRIGHTS IN AMERICAN ECONOMIC DEVELOPMENT, 1790-1920 at 78 (2013) (determining this number for the 1820s, although disputing its significance).
35See Hovenkamp, Inventing, supra note 2.
37See Hovenkamp, Inventing the Classical Constitution, supra note 2 at __; and HOVENKAMP, ENTERPRISE, supra note 23 at 17-41.
The Origins of Patent Exceptionalism

This opposition to exclusive privilege became an increasingly powerful theme in American public law through the balance of the nineteenth century and well into the twentieth. One of its most enduring manifestations was the expansion of administrative agencies as an alternative to entrenched, conservative courts. 38 Two of its most important contributions were the general corporation acts of the 1830's, which entitled everyone who could meet statutory requirements to incorporate, typically under the oversight of the secretary of state. At the same time, however, the general incorporation acts took away most of the Corporation's special exclusive privileges. 39 Beginning with the 1836 Patent Act, a second contribution was an increasingly administrative patent system, with objectively defined criteria of invention but only minimal involvement of government economic policy making. 40 The champion of the 1836 Act, Jacksonian Senator John Ruggles of Maine, later became known as the "father of the Patent Office." 41 One of the federal government's early important uses of administrative process, first authorized by the Patent Act of 1836, was to limit the number of issued patents but in a way that was free of political influence. 42 The federal patent then evolved into a "property right" that applicants could obtain through an administrative procedure intended to be politically neutral, and that patentees could practice or not at their will.

As noted previously, pre-classical theories of economic development relied heavily on exclusive rights in order to create incentives. Patents were a special case of this general principle. For example, the patent provision contained in the original English Statute of Monopolies in 1623 was nothing more than an exception to a statute that limited the government's power to grant monopoly franchises. 43 Some of the American colonies emulated this provision. The


39 See HOVENKAMP, ENTERPRISE, supra note 23 at 11-16.


41 See 64 SCIENTIFIC AMERICAN 295 (1891).

42 Patent Act of 1836, Ch. 357, 5 Stat. 117 (July 4, 1836). See discussion infra, text at notes __.

43 English Statute of Monopolies of 1623, 21 Jac. 1, c.3, § 6:

6 (a ). Provided also, that any declaration before mentioned shall not extend to any letters patents (b ) and grants of privilege for the term of fourteen years or under, hereafter to be made, of the sole working or making of any manner of new manufactures within this realm (c ) to the true and first inventor (d ) and inventors of such manufactures, which others at the time of making such
Massachusetts Bodie of Liberties (1641) provided that “No monopolies shall be granted or allowed amongst us, but of such new inventions that are profitable to the Country, and that for a short time.”

During the Jackson era the patent gradually became rebranded as a set of "property" rights, which entailed two things. First was a more ministerial set of rules for determining when patents should be issued, effectively removing this power from direct, individual legislative action. Chief among these rules was the limitation of patents to "inventors," plus a set of criteria for defining inventorship. Second was the emerging idea that patents-as-property have the same protections that apply to rights in land or other traditional property. An important corollary was that, once they were issued, patents were subject to the management of their owners but relatively free from other federal control. The decision whether or not to make productive use of the innovation represented in a patent became purely private, emulating the law of real property. One cannot lose title simply through nonuse, and patent ownership creates no "social" obligations. Licensing and most other post-issuance practices were regulated, if at all, under state contract and commercial law.

With this change in legal profile, the American patent largely managed to escape most of the hostility toward monopoly and abhorrence of regulation that gradually increased after the Civil War and throughout the century. Most of that hostility was directed at state legislative grants or private business, but not at federal patent grants. The success of this transformation is underscored by the fact that the early twentieth century represented both the height of substantive due process doctrine, with its exaggerated fears of state created monopoly, but also the high point of patent exceptionalism. Supreme Court patent decisions such as Bement (1902) and

letters patents and grants shall not use (e), so as also they be not contrary to the law nor mischievous to the state by raising prices of commodities at home, or hurt of trade, or generally inconvenient . . . .


45 See discussion infra, text at notes __.


Paper Bag (1908),\textsuperscript{48} written during the heyday of Lochner-style hostility toward state created monopoly, permitted cartelization of patented products and allowed patentees to enforce unused patents in such a way as to keep technology off the market rather than facilitate its development.

In the process, patent law became much more privatized and divorced from government policy toward economic development. While such concerns were still articulated, they were increasingly relegated to boilerplate. The government's job was increasingly seen as limited to defining patent property rights, with questions about development and use left entirely to the private owner. As a result the patent system evolved into a remarkably different enterprise from, say, antitrust law, which even in litigation devotes considerable empirical resources to identifying and distinguishing the effects of particular practices in the markets where they occur.\textsuperscript{49} The main reason this is true is that antitrust never turned into a property rights system, but rather gleaned its sources from economics as well as the common law of contracts and torts. For better or worse, it remained much more responsive to policy making about growth and development.

**Federal Exclusivity**

An essential part of the development outlined above was the rise of federal patent exclusivity -- a result that was not mandated by the text of the Constitution's IP Clause. The sources of increased hostility toward state issued patents were twofold. First was the view that state issued patents burdened interstate commerce. For example, the Supreme Court struck down the state-issued steamboat patent under the dormant Commerce Clause as preempted by federal legislation,\textsuperscript{50} not under the IP Clause as usurpation of a federal prerogative.\textsuperscript{51} Second, however, only federal exclusivity could effectively limit the power of the states to grant unwarranted exclusive rights to favored grantees. The eventual result was a regime in which Congress acquired the exclusive power to award patents for inventions.

While state issued patents largely disappeared from the economic landscape during the Jacksonian era, the question of federal exclusivity was unsettled in the United States as late as the 1960's. In 1963 neither the Supreme Court nor the Government as Amicus Curiae could cite a single case for the proposition that the federal patent power preempted state patent law. The Government's brief in the Stiffel and Day-Brite cases had to concede that it knew "of no case in

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\textsuperscript{48} Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405 (1908) (permitting owner of unused patent to use infringement suit to shut down rival's competing technology). See discussion infra, text at notes __.


\textsuperscript{50} Gibbons v. Ogden, 22 U.S. 1, 221 (1824).

\textsuperscript{51} See discussion infra, text at notes __.
this Court specifically dealing with the question." Nor was there any federal statute on point.\textsuperscript{52} The Supreme Court responded by creating exclusivity \textit{de facto}, on grounds of public policy, relying on the need for federal uniformity and not even mentioning the Tenth Amendment.

While drafting the first Patent Act in 1790 members of Congress vigorously debated whether federal patents could be given to mere importers of foreign technology, with a consensus emerging that such a provision exceeded Congressional power under the IP clause.\textsuperscript{53} States, however, retained the power to offer other types of exclusive rights. These were given mainly in corporate charters, and often to entrepreneurs who had not actually invented anything but rather who promised to deploy technology that had been developed elsewhere.\textsuperscript{54}

**Classical Patent Law**

Mid-nineteenth century changes in the legal concept of the patent moved away from an "involved" government toward the view that private action would achieve optimal development, provided that the issuance process was kept free of capture and contract and property rights were protected. The federal process of patent issuance became increasingly administrative, restricted to true inventors as determined by objective, nonpolitical criteria. In the process the patent began to change from an express element of economic development into a property right, pure and simple.

**The Patent in Classical Political Economy**

Beginning with Adam Smith, classical political economists and other policy writers became highly critical of the general system of encouraging development through the creation of monopoly rights. They believed that capital would gravitate naturally to investments that were destined to be profitable, and special state inducements were unnecessary.\textsuperscript{55} Second, they complained repeatedly that, whatever the ideal vision of statecraft inherent in this process, it always resulted in excessive largesse to favored interested groups. More often than not both

\textsuperscript{52}Brief for the United States as Amicus Curiae, 1963 WL 105793, Compco Corp. v. Day-Brite Lighting, 376 U.S. 234 (1964); Sears, Roebuck & Co. v. The Stiffel Co., 376 U.S. 225 (1964). The brief noted the debate over the issue in Gibbons v. Ogden, 22 U.S. 1 (1824) and Chief Justice Marshall's refusal to decide the issue. Government Amicus Brief, note 11. And see the discussion, infra, text at note 92.


\textsuperscript{54} See discussion infra, text at notes __.

\textsuperscript{55} See Hovenkamp, \textit{Inventing the Classical Constitution}, supra note 2 at __.
corporate charters and patents were given to those who were politically well placed, and those not so favored were left to labor in the more competitive markets that remained.\textsuperscript{56}

Patents managed to find a small place in the writings of classical political economists, provided their scope was sufficiently constrained and the granting process free from special interest control. For example, Adam Smith acknowledged the value of patents, but not with much enthusiasm. His \textit{Lectures on Jurisprudence}, written about fifteen years before \textit{The Wealth of Nations}, found exclusive rights generally to be “greatly prejudicial to society.”\textsuperscript{57} However, he found the British 14 year exclusive right for patented inventions to be “harmless enough.”\textsuperscript{58} \textit{The Wealth of Nations} itself says very little on the subject of patents, other than Smith's repeated objections to exclusive rights.\textsuperscript{59} Smith also observed that “pecuniary rewards” such as bounties for valuable inventions were a way to encourage innovation, but in practice they would require the state to place a value on them, and this would “hardly ever be so precisely proportioned to the merit of the invention.”\textsuperscript{60} By contrast, exclusivity for a limited term plus the right to license would create rewards based on market evaluation.

Smith's denigration of patents might seem surprising, given the broad scope of \textit{The Wealth of Nations}, which covered what we would today call both macro- and microeconomic topics, and with a strong focus on trade and commerce. Further, Smith's writing coincided with the start of the English Industrial Revolution, which began in the 1760s and spread to

\textsuperscript{56} Id. at __.

\textsuperscript{57} ADAM SMITH, LECTURES ON JURISPRUDENCE (undated, but delivered between 1762 and 1766), p. 115, annotated online edition, \textit{available at} www.estig.ipbeja.pt/~ac_direito/Smith_0141.06.pdf.

\textsuperscript{58} Ibid.

\textsuperscript{59} ADAM SMITH, INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS, Book I, Ch. 10, §§ 72, 80 (1776); \textit{See also} Bk. IV, Ch. 8, §17 (speaking of “absurd and oppressive monopolies”).

\textsuperscript{60} SMITH, LECTURES ON JURISPRUDENCE, \textit{supra} note 57 at 116. Smith's complete statement is:

The greatest part however of exclusive privileges are the creatures of the civil constitutions of the country. The greatest part of these are greatly prejudicial to society. Some indeed are harmless enough. Thus the inventor of a new machine or any other invention has the exclusive privilege of making and vending that invention for the space of 14 years by the law of this country, as a reward for his ingenuity, and it is probable that this is as equal an one as could be fallen upon. For if the legislature should appoint pecuniary rewards for the inventors of new machines, etc., they would hardly ever be so precisely proportioned to the merit of the invention as this is.

Continental Europe and America. Smith certainly did not see a strong link between the industrial revolution and any protection that the British patent system had to offer.

Thomas Jefferson's position on patents was not that far from Smith's. Jefferson was one of the relatively few founding fathers who studied Smith closely in the late eighteenth century, although he was probably more interested by other writers in the Scottish classical economic tradition, such as Francis Hutcheson. He shared Smith's views about the need for a small, relatively uninvolved state and had the same preferences for an agrarian rather than industrial society. Like Smith and Hutcheson, Jefferson was unenthusiastic about patents but willing to tolerate them provided that they were not excessively granted.

Classical political economy began to take serious hold in the United States in the 1830s. American political economists in the classical tradition, such as Brown University's Francis Wayland, did not move far from Smith’s position on patents. Wayland simultaneously railed against the evils of exclusive grants generally, but made a limited exception for exclusive rights for limited times for patents and copyrights. By and large, however, these were passing observations, and there was little sustained discussion of patent rights. Indeed, one striking feature of Anglo-American economics generally is the small amount of attention devoted to the patent system until the early decades of the twentieth century. Only in the 1930s did economists such as Arnold Plant at the London School of Economics, Joan Robinson at Cambridge, and Edward Chamberlin at Harvard began to incorporate patents into their theories of business economics.

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65 *See, e.g., Francis Wayland, Elements of Political Economy* (1837), at 69 (evils of exclusive grants generally); 27 (supporting patents and copyrights).

After 1830 both Congress and American judges attempted to forge a patent system that simultaneously rejected the pre-classical idea that monopoly was a useful general tool for encouraging enterprise, but also embraced a narrow and increasingly technical exception for inventors. They did this, first, by seeking to ensure that patent grants were limited to true inventions and not granted too liberally. Second, they reconceptualized the issued patent as a property right, similar to land grants, which entered the stream of commerce once they were created but thereafter received little government oversight other than protection of title and boundaries. Further, they were purely "private" in the sense that ownership did not require use or any other sharing with the public. These changes also served to remove the patent system from the stigma of state-created monopoly.

Smith was just as critical of business corporations as he was of the patent system. He opposed large aggregations of private power and believed that corporations ("joint stock companies"), as managers of "other people's money," were doomed to inefficiency and abuse. Thomas Jefferson shared many of these views, which he derived from Smith, and strongly favored a nation of small farmers and yeomen. By contrast, the classical statecraft that emerged in the United States in the 1830s under Andrew Jackson's administration was much more entrepreneurial. Rather than abolishing the business corporation, the Jacksonian states democratized it by making the business corporate form available to everyone as a matter of administrative law, and attempting to remove any hint of special privilege or monopoly right.

Thus both the federal patent system and state corporate law developed administrative systems for awarding rights.

State v. Federal Patenting Power: Promoters vs. Inventors

The Constitution's Patent Clause gives Congress the power to issue patents but says nothing about whether that power is exclusive. Further, the Tenth Amendment provides that the states retain any power not granted to Congress. The patenting power in the federal Constitution is also expressly restricted to "inventors" and only for "discoveries." Justice

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67 Smith, Wealth of Nations, supra note 59, Book V, Ch. 1, §107.


70 U.S. Const. amend. X.

Marshall's opinion for the Supreme Court in Evans v. Eaton categorically rejected the patentee's argument that under the federal Patent Act it was "not necessary for the patentee to show himself to be the first inventor or discoverer." He was entitled to a patent if he invented something, not knowing about prior art, "although it may have been previously discovered by some other person." Roughly a third of patent validity challenges during the period 1800-1839 were based on lack of novelty.

By contrast, pre-classical theories of economic growth were much more focused on "developers," or entrepreneurs. What was important was not so much who had invented something, but rather who promised to deploy it to public advantage. In the late eighteenth and early nineteenth centuries states frequently granted patents and monopoly charters to firms that had not invented anything but rather had promised to build something with existing technology, such as a bridge or a steamboat line. Historically, if a grantee failed to construct or operate the thing contemplated by the grant, the legislative body could withdraw it. Today, by contrast, a patent is valid and enforceable, at least by damage actions, even if the patentee never puts the patent into practice.

In addition, the right to exclude in a patent is specific to a technology described in the patent. By contrast, a monopoly right in a corporate charter was typically geographic, such as giving a private corporation the exclusive right to maintain a toll bridge for a specified distance in either direction. The scope of invention or technology was not an issue. For example, some early decisions considered such questions as whether the exclusive right to operate a toll bridge over a river at a certain point served to exclude those who crossed over the frozen ice in winter by either walking or driving a sleigh. The issue was not infringement of any technology embodied in the bridge, but simply crossing the river by any means within the proscribed distance. State-granted patents often combined these technological and geographic limitations without distinguishing them.

State issued patents required a geographic limitation if for no other reason than states had no authority to interfere with Congressional power over interstate commerce. This became clear

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73 Khan, Property Rights and Patent Litigation, supra note 33 at 78.


75 Cases involving statutory bridge monopolies for prescribed distances include The Binghamton Bridge, 70 U.S. 51 (1865); Washington Toll-Bridge Co. v. Commissioners of Beaufort, 81 N.C. 491 (1879); The Fort Plain Bridge Co. v. Solomon Smith, 3 Tiffany 44, 30 N.Y. 44 (1864). See also ELIZABETH B. MONROE, THE WHEELING BRIDGE CASE: ITS SIGNIFICANCE IN AMERICAN LAW AND TECHNOLOGY (1992).

76 See, e.g., Sprague v. Birsall, 2 Cow. 419 (N.Y. 1823) (denying recovery).
after the Supreme Court's 1824 decision in *Gibbons*, discussed below. The New York issued steamboat patent in that controversy extended to ports at the state's outer boundaries. This prompted complaints by people from New Jersey and Connecticut that they could not travel to New York by steamboat, because no boat line was capable of operating in two or more states. Thus *Gibbons* became the classic case of state interference with interstate commerce.

Commerce Clause issues aside, the Constitution's framers very likely did not intend to eliminate all state-issued patents. The predominant early interpretation was that the Patent Clause gave Congress the right to reward “inventors” with exclusive rights, while permitting the individual states to create such rights for other reasons, including grants to non-inventor developers. St. George Tucker, editor of the first American edition of Blackstone's *Commentaries* (1803), understood the Patent Clause to mean that “the states may possess some degree of concurrent right within their respective territories.” State patent grants would become rare, however, since they could not provide protection beyond their borders, while United States patents extended nationwide. “[I]t is scarcely probable that the protection of the laws of any particular state will hereafter be resorted to . . .” As late as the 1830's Joseph Story agreed in his *Commentaries* on the Constitution, concluding that while state patent grants continued to be lawful they would be much less appealing than a United States patent. Neither author acknowledged that the power to create local monopolies within a single state could still be quite valuable.

Consistent with the Constitutional limitation, all federal Patent Acts have restricted patent grants to inventors. The first act, passed in 1790, limited its protection to those who “have invented or discovered” something “useful and important.” The statute also required a written description of the invention, as well as a model of the invention if practicable. It said nothing about the power of the states to issue patents. The Second Patent Act of 1793 clarified the novelty requirement, stating “that simply changing the form or the proportions of any machine,

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77 *Gibbons v. Ogden*, 22 U.S. 1, 221 (1824). See discussion *infra*, text at notes __.


80 3 *JOSEPH STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES* 48 (1833).


82 *Id.* at § 2.
or composition of matter, in any degree, shall not be deemed a discovery." The Second Act also made clear that the patent's written description had to be sufficient to enable someone skilled in the art to make or use it. The Second Patent Act also did not preclude the states from issuing patents, although it did provide that someone who owned a state patent issued before that state had ratified the Constitution could obtain a United States patent on the same thing only by relinquishing the state patent.

By tying federal patent exclusively to inventors, the U.S. Constitution effectively divided the territory of government-sanctioned exclusive rights. Granting of exclusive rights in corporate charters remained largely a function of the states. Gradually, however, the power to grant exclusive rights for inventions was seen as a federal prerogative. As late as the 1830s judges argued that, while federal power to recognize true invention was exclusive, the power to grant exclusive rights to developers and promoters continued to reside with the states. In his 1833 Commentaries on the Constitution, Joseph Story argued that while the Congressional power to grant patents was limited to inventors, the states retained the power to grant an exclusive right to “the possessor or introducer of an art or invention, who does not claim to be an inventor, but has merely introduced it from abroad . . . ”

State-Issued Patents

After the Revolution but prior to ratification of the Constitution, patents were issued exclusively by individual states, and only by legislative enactment. John Fitch's first steamboat patent, probably the best known of post-Revolutionary state patents, was created by a special legislative grant from the state of New York. The patent was issued in 1787, when the states were still being governed by the Articles of Confederation. The patent granted “the sole and exclusive right and privilege of making and using boats, propelled by fire or steam, within the waters of New York State.”


84 Id. at § 3, staging that the applicant:

shall deliver a written description of his invention, and of the manner of using, or process or compounding the same, in such full, clear and exact terms, as to distinguish the same from all other things before known, and to enable any person skilled in the art or science ... to make, compound, and use the same.

85 Id., § 7.

86 3 STORY, COMMENTARIES ON THE CONSTITUTION, supra note 80 at 50.

87 Livingston v. Van Ingen, 9 Johns 507, 507–508 (N.Y. 1812). As the decision quoted the complaint:

That on the 19th of March, 1787, the legislature of the state of New-York passed an act ... that the said John Fitch, his heirs, administrators and assigns, should be, and they were thereby vested
The scope of the Fitch grant, covering all “boats propelled by fire or steam,” was much broader than anything Fitch had actually invented. At the time he had nothing more than some drawings. Nevertheless, the New York court sustained the patent against a claim that “[t]he grant in question is not of the exclusive right of a propelling power applied to machinery of an ascertained construction; but is a grant of the propelling power at large, wherever it is possible to create it on the waters of the state, if applied to the purpose of navigating vessels.”

States continued to issue patents after the United States Constitution was ratified. In 1798 New York gave Robert Livingston and Robert Fulton a second patent to make and operate steamboats for up to thirty years. Just as the Fitch patent, the Livingston/Fulton patent was a special grant of the New York legislature. Interestingly, when the Supreme Court eventually struck down a portion of this grant in Gibbons v. Ogden, it relied on the negative implications of the Commerce Clause. Chief Justice Marshall's opinion refused to consider whether either the Constitution's Patent Clause or the federal Patent Act preempted state issued patents. A year later a New York court struck down the entire grant, once again under the Commerce Clause, holding that Justice Marshall's strong “affecting commerce” language in Gibbons served to invalidate significant portions of the exclusive grant even as applied to purely intrastate routes.

with the sole and exclusive right and privilege of constructing, making, using, employing and navigating, all and every species or kinds of boats, or water craft, which might be urged or impelled through the water, by the force of fire or steam, in all creeks, rivers, bays and waters whatsoever, within the territory and jurisdiction of this state, for and during the full end and term of fourteen years from and after the then present session of the legislature . . .

88 This is largely supported by the fact that several other states also issued geographically exclusive patents for steamboats. For a broad catalog, see Federico, State Patents, supra note 78 at 169-172.

89 Livingston, 9 Johns at 516.


91 Livingston, 9 Johns at 507.

92 Gibbons v. Ogden, 22 U.S. 1, 239 (1824).

I have not touched upon the right of the States to grant patents for inventions or improvements, generally, because it does not necessarily arise in this cause. It is enough for all the purposes of this decision, if they cannot exercise it so as to restrain a free intercourse among the States.

93 On Marshall's interpretation of the Commerce Clause to create federal power over activities "affecting commerce," see Hovenkamp, Inventing Classical Constitution, supra note 2 at __

The steamboat patent history makes clear that the New York legislature was much less interested in rewarding inventors than in using monopoly grants to promote economic development. It wanted a set of working commercial steamboat lines. First, as part of his application to the legislature, Fitch was required to demonstrate the “great immediate utility and the important advantages” that would result from his invention. This included a lengthy description of the social benefits that would accrue, particularly in western watercourses that had been difficult to navigate.95 Further, his patent was regarded as a legal commitment to deploy. Unfortunately, Fitch never developed the promised steamboat or routes.

Several years later, with Fitch's steamboats nowhere in view, Fulton and Livingston demonstrated an actual working steamboat to the New York legislature. It responded by revoking Fitch's patent for nonuse and issuing a second patent to Fulton and Livingston.96 Fulton's and Livingston's own status as inventors is also open to dispute. They had made a working model by copying liberally from Fitch's design.97 Not until 1836 would federal law prevent the patenting of something that had been “described in any printed publication,” as Fitch's drawings had been, prior to filing of the Fulton/Livingston application.98 Further, Fulton and Livingston also had to make several improvements in order to comply with additional obligations that the New York legislature assessed—namely, of boats displacing at least twenty tons and capable of going four miles per hour through the ordinary currents of the Hudson river, both upstream and downstream.99 Another clause in the grant provided that for each additional steamboat that the patentees actually deployed their patent term would be extended by five additional years.100 Clearly the New York grant to Fulton and Livingston contemplated actual construction and use of steamboats, even specifying their minimum performance and creating inducements for increasing their number. The Fulton/Livingston patent represented a “contract to develop and


96 Livingston, 9 Johns at 509.


102(a)(1).


100 Id.
deploy” rather than an "invention" in the modern sense. It was a product of intense bargaining with the legislature, which wanted steamboats of a specified capability to be deployed on New York waters.

One of the reasons that both Justices Yates and Kent gave for upholding the state’s power to issue the patent was that the federal Constitution's Patent Clause gave Congress the power to issue patents only to “authors and inventors.”101 They also noted that the Tenth Amendment mandated that anything not expressly given to Congress was reserved to the states. 102 From that

101 Id. at 515.
102 Kent’s statement is worth quoting.

If the grant is not inconsistent with the power of congress to regulate commerce, there is as little pretence to hold it repugnant to the power to grant patents. That power only secures, for a limited time, to authors and inventors the exclusive privilege to their writings and discoveries; and as it is not granted, by exclusive words, to the United States, nor prohibited to the individual states, it is a concurrent power which may be exercised by the states, in a variety of cases, without any infringement of the congressional power. A state cannot take away from an individual his patent right, and render it common to all the citizens. This would contravene the act of congress, and would be, therefore, unlawful. But if an author or inventor, instead of resorting to the act of congress, should apply to the legislature of this state for an exclusive right to his production, I see nothing to hinder the state from granting it, and the operation of the grant would, of course, be confined to the limits of this state. Within our own jurisdiction, it would be complete and perfect.... Congress may secure, for a limited time, an exclusive right throughout the union; but there is nothing in the constitution to take away from the states the power to enlarge the privilege within their respective jurisdictions. The states are not entirely de vested of their original sovereignty over the subject matter; and whatever power has not been clearly granted to the union, remains with them.

Chancellor Kent also added this:

The power of congress is only to ascertain and define the right of property; it does not extend to regulating the use of it. That must be exclusively of local cognisance. If the author's book or print contains matter injurious to the public morals or peace, or if the inventor's machine or other production will have a pernicious effect upon the public health or safety, no doubt a competent authority remains with the states to restrain the use of the patent right. That species of property must likewise be subject to taxation, and to the payment of debts, as other personal property. The national power will be fully satisfied, if the property created by patent be, for the given time, enjoyed and used exclusively, so far as under the policy of the several states the property shall be deemed fit for toleration and use. There is no need of giving this power any broader construction in order to attain the end for which it was granted, which was to reward the beneficent efforts of genius, and to encourage the useful arts.

Livingston, 9 Johns at 574-575, 581-582.
it followed that a state had the power to grant a patent right to someone who was not an inventor but rather a developer or promoter. Speaking of the federal Patent Act, which by this time was more than twenty years old, Justice Yates observed that under it patent applicants are limited to authors and inventors only; this clause, therefore, never can admit of so extensive a construction, as to prohibit the respective states from exercising the power of securing to persons introducing useful inventions (without being the authors or inventors) the exclusive benefit of such inventions, for a limited time. . . .

Chancellor Kent agreed, stating the dominant pre-classical view about monopoly grants and economic development:

[T]he uniform opinion, in England, both before and since the statute of James, has been, that imported improvements, no less than original inventions, ought to be encouraged by patent.... [To hold otherwise] would be leaving the states in a condition of singular and contemptible imbecility. The power is important in itself, and may be most beneficially exercised for the encouragement of the arts; and if well and judiciously exerted, it may ameliorate the condition of society, by enriching and adorning the country with useful and elegant improvements.

This understanding of patents as inducements to develop or produce was hardly an oddity at the time. British patents had also been issued not merely to new inventors, but also to those that had migrated an existing manufacture or trade into a new area. Hamilton's Report on Manufacturers, published in 1791, argued in favor of a system that applied not only to novel inventions, but also to those who introduced foreign technology into the United States. Hamilton also acknowledged that the new federal Constitution limited patent protection to “authors and inventors.” He suggested the possibility that Congress could legislate additional protection for

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103 Livingston, 9 Johns at 560–61. The New York courts had already agreed, however, that if the patent in question had been issued by the United States, then only the federal courts would have jurisdiction to adjudicate it. Parsons v. Barnard, 7 Johns 144 (N.Y. Sup. Ct. 1810).

104 Referring to the 1623 Statute of Monopolies. See supra note __.

105 Livingston, 9 Johns at 584–85. Justice Thompson simply concluded that the IP clause granted to Congress concurrent rather than exclusive power to issue patents. See id. 9 Johns at 563.

non-inventing promoters, although its authority to do so -- apparently under the Commerce Clause -- was “not without a question.”

Economic Development and Unworked Patents

Like the monopoly grants created in state issued corporate charters, early patent provisions contemplated actual production under the exclusive rights that they permitted. Their purpose was to encourage development, not simply to create exclusive rights over technology. The patent grant in the Statute of Monopolies conferred the exclusive right on “manufactures,” while the Massachusetts Bodie of Liberties limited exclusive privileges to “Inventions that are profitable to the Country….” Further, the term "invention," typically used together with the term "discovery," generally referred to the introduction of a new industry into the territory. That is, the emphasis was on developing a new industry in a particular area rather than developing a technology not previously known. By contrast, the emergent classical conception of the patent saw it as a narrowly authorized property right, given only to inventors and thereafter placed more or less completely under the patent owner's control.

Many English patents from prior to the American revolution had "working clauses," later called "revocation clauses," which were provisions that required the patentee to commercialize the technology covered by the invention. Some patents specified a number of years during which the patentee must perfect the invention or put it into use. Otherwise the patent would lapse or be revoked. Some patent systems retained working clauses until well into the twentieth century. Obligations to practice, or "work," the patent were also included in many state patent grants during the early national period. By contrast, none of the federal patent acts ever

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108 See Bracha, Owning Ideas, supra note 95, Ch. 1.


included a working requirement, except for a short-lived provision enacted in 1832 that permitted foreign applicants to receive a United States Patent only if they "introduce[d] into public use in the United States the invention or improvement within one year from the issuing thereof."

The provision was removed from the 1836 Act and never reappeared.

Working clauses were a way of guaranteeing that the public would benefit from the grant of an exclusive right prior to the patent's expiration. If the patentee did not work the patent, then during the period covered by the grant no one else could do so either. The effective impact of such a patent would be to withdraw its technology or manufacture from service -- precisely the opposite of what was intended. The effect was to put the patent "to sleep," in the words of economist John Maurice Clark. Eventually working clauses gave way to requirements of disclosure and enablement, which required a patent to be sufficiently clear that another person who read it could replicate the invention without undue experimentation. The importance of the difference should not be lost, however. Patent disclosure and enablement were intended to facilitate copying of the innovation by others after the patent expired. Nonuse during the patent period could still result in removal of the technology from the market during the patent's life.

Depending on available remedies, an unused patent manifested not merely the patentee's failure to develop, but also a right to prevent others from developing until the patent expired. In the early nineteenth century United States, a nation acutely aware of its undeveloped state, that idea was intolerable. Chancellor Kent concluded in his Commentaries that, while the government could not invalidate a United States patent simply because it was not being used, the owner could not maintain an action against an infringer.

In Earle v. Sawyer, written just as the steamboat patent wars were winding up, Justice Story also stated his belief that federal law required patents to be practiced before they could be enforced, concluding that the federal patent act protected "not a mere elementary principle, or intellectual discovery, but a principle put in practice." As late as 1868 the Supreme Court held that an improvement patent that had issued was not enforceable against a subsequent developer of the technology when the improvement failed experimental testing and was never

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112 4 Stat. 577 (1832).


114 JOHN MAURICE CLARK, STUDIES IN THE ECONOMICS OF OVERHEAD COSTS 146 (1923).


116 2 JAMES KENT, COMMENTARIES ON AMERICAN LAW 369 (1826).

brought into practice. A few years later the Supreme Court held that a first patent was prior art as to a different inventor's later patent, but only because the first patentee had actually reduced the invention to practice by making a working model that was viewed by witnesses.

The principal nineteenth century patent law treatise writers were not entirely consistent on the issue, although overall they favored a practice requirement. Willard Phillips, the most prominent patent law writer of the 1830s, insisted that reduction to practice was a prerequisite to enforcement. “The subject of a patent must be something that has been reduced to practice...; it must be something which has been actually done or produced,” Phillips concluded in 1837, citing several British decisions as well as Justice Story's *Earle* decision. Further, “[t]he patent being for an invention that is described in it, it is not only requisite that the invention should be reduced to practice, but it must be reduced to practice in the way, and produce the effect specified.”

George Ticknor Curtis, whose 1849 treatise was probably the most prominent in nineteenth century American patent law, did not disagree with Phillips. However, his third edition, which was published in 1867, began to merge the practice requirement with enablement, or the idea of "constructive" reduction to practice:

> It is not necessary that the invention should have been reduced to practice; but unless the description would enable the public, without further invention, to put the thing in practice, it cannot be said that a knowledge of that thing is in the possession of the public.

In his 1890 treatise William Callyhan Robinson strongly disagreed, declaring that patent law required "nothing less than the actual practice or some art, or the construction of some article of manufacture." Robinson expressly rejected the view that a detailed written description sufficient to enable someone to make the invention was sufficient. Indeed, for Robinson even a "model exhibiting the article in all its parts" was insufficient.

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119 Coffin v. Ogden, 85 U.S. 120 (1873).
122 Id., Ch. 9, § 378 397-398 (3d ed. 1867).
124 Id. at 181–182.
But Robinson was swimming upstream. Already in 1872 one federal court had concluded that a legal rule voiding unworked patents was "wholly unsound" because "no such condition is required by the act of congress." The idea of "constructive" reduction to practice began appearing in the case law -- that is, that a patent should be treated as constructively reduced to practice if its disclosure was specified sufficiently that a knowledgeable person skilled in the art could implement the invention without excessive experimentation.

The culmination of classical patent law was that an issued patent was a property right completely in the control of its owner, who should be free to use it or not at will and also to enjoin infringers. The Supreme Court embraced this view early in the twentieth century, in two decisions concerning the uses of patents in ways that served to limit rather than expand output. In *Bement v. National Harrow* the Supreme Court upheld a patent cross-licensing agreement that included a provision fixing the sales price of agricultural harrows covered by the patents. In response to the argument that product price fixing was not in the public interest Justice Peckham replied that the patentee's "title is exclusive, and so clearly within the constitutional provisions in respect of private property that he is neither bound to use his discovery himself nor permit others to use it." With that, the Court reasoned that an owner who had the right not to use a property interest at all also had the right to fix the price at which the patented article could be sold.

Six years later in the *Paper Bag* case it went further, concluding that an unpracticed patent was both enforceable and that it entitled the patentee to an injunction against a competing firm. The patent owner was a dominant manufacturer of paper grocery bags. It was using one type of cutter to make its bags, but purchased a patent on a different type of cutter from an outside inventor. Preferring to stick with its existing technology, the patent owner then brought suit against a rival firm whose technology resembled that in the acquired but unused patent. Not only did the Supreme Court permit the plaintiff to get an injunction shutting down the rival's technology, but it did so under a particularly broad reading of patent law's doctrine of

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equivalents, which permits infringement claims against technology that do not literally infringe a patent.¹²⁹

Even more than Bement, the Paper Bag decision showed how dominant the private conception of patent law as a property right had become. The federal district court observed that the patent owner "stands in the common class of manufacturers who accumulate patents merely for the purpose of protecting their general industries and shutting out competitors."¹³⁰ Nevertheless, it felt obliged to issue the injunction. The First Circuit affirmed, but Judge Aldrich wrote a strong dissent complaining that in this case "a court of equity is asked not to protect from infringement the statutorily intended monopoly ... but to protect a monopoly beyond and broader...." Further,

The proposition involves the idea of a secondary monopoly maintained to stifle patent competition in the trades and industries, and thus contemplates a condition which at once contravenes the manifest purpose of the Constitution, and a monopoly of a kind and breadth and for a purpose in no sense ever contemplated by the statutory contract which safeguards the legal right to make, use, and vend under a particular patent.¹³¹

Nevertheless the Supreme Court concluded:

The inventor is one who has discovered something of value. It is his absolute property. He may withhold the knowledge of it from the public, and he may insist upon all the advantages and benefits which the statute promises to him who discloses to the public his invention.¹³²

Over the subsequent four decades Congress was repeatedly asked to overrule or limit the effect of Paper Bag, mainly by providing for either forfeiture¹³³ or compulsory licensing¹³⁴ of unused patents. It always declined.

¹²⁹ The doctrine was first developed by a divided Court in Winans v. Denmead, 15 How. 330 (1854). See BOHANNAN & HOVENKAMP, supra note 128 at 296-297.


¹³² Paper Bag, 210 U.S. 424. Justice Harlan was the only dissenter, stating that he would have denied the injunction “on grounds of public policy.” Id. at 429.

¹³³ H.R. 13876, 62d Cong., 1st Sess. (1911); H.R. 22203, 62d Cong., 2d Sess. (1912); S. 3297, 67th Cong., 2d Sess. (1922); H.R. 6864, 75th Cong., 1st Sess. (1937) (all rejecting proposals to provide for forfeiture of patents not used within a specified period).

¹³⁴ S. 3325, 67th Cong., 2d Sess. (1922); S. 3474, 69th Cong., 1st Sess. (1926); S. 705, 70th Cong., 1st Sess. (1927); S. 203, 71st Cong., 1st Sess. (1929); S. 22, 72d Cong., 1st Sess. (1931); S. 290, 73d Cong.,
Paper Bag represents the high point in the Supreme Court's development of patent doctrine based on private property principles, largely indifferent to concerns about economic development and growth. Under the law of real property the owner of undeveloped land has no duty to sell it to another for development, and she can use an injunction to exclude outsiders, no matter how socially beneficial their purpose.135 This was so notwithstanding that no federal patent act ever made injunctions automatic. Rather they provided that such suits should be governed by general equitable principles.136 While the principles were not fully stated in the Acts, commonly accepted requirements were that a remedy at law, or damages, was inadequate. Further, the plaintiff had to show that the public interest would not be disserved by an injunction.137 Reflecting deep division in thinking about patents as absolute property rights or as tools of economic development, the courts initially divided on the question of entitlement to an injunction. Some concluded that the remedy for infringement actions on unpracticed patents should not be an injunction, which would keep the technology off the market altogether,138 while others disagreed.139 By approving an injunction restraining infringement of the defendant's unpracticed patent, the Paper Bag decision settled that issue for the time being.

Patents and Special Interest Capture: The First Sale Doctrine and Substantive Due Process

In Bloomer v. McQuewan, Chief Justice Taney wrote the Supreme Court's opinion limiting the enforcement of patent rights against someone who had previously purchased a patented product. In the process the Court implicitly tied patent doctrine to Jacksonian concerns

135 See, e.g., Pollock v. Cleveland Ship Bldg. Co., 56 Ohio St. 655, 47 N.E. 582 (1897) (land owner could obtain injunction against shipper who placed vessels on the owner's land for repair, even though the land was unimproved).

136 Patent Act of 1836, Ch. 357, 5 Stat. 117 §17 (July 4, 1836) (granting federal court in equity the power “to grant injunctions, according to the course and principles of courts of equity... on such terms and conditions as said courts may deem reasonable....”). See also Patent Act of 1870, 16 Stat. 198-217 §55 (July 8, 1870) (similar).


138 Electric Smelting & Alum. Co. v. Carborundum Co., 189 F. 710 (C.C.W.D.Pa. 1900) (refusing an injunction); Hoe v. Knap, 27 F. 204 (C.C.N.D. Ill. 1886) (conditioning enforcement on a showing that the patentee either practiced the patent itself or permitted others to practice it).

about retroactivity and Contract Clause doctrine.\textsuperscript{140} \textit{Bloomer} was the Court's first statement of patent law's judge-made “first sale” doctrine and also its first declaration of what later became economic substantive due process.\textsuperscript{141}

Bloomer had licensed a patent on a rotary wood planing machine from its inventor, William Woodworth, one of the nineteenth century's most litigious patentees.\textsuperscript{142} The machine's ability to smooth all four sides of a wooden board without pulling it to one side or the other as it passed through the machine made it a significant contribution to that industry.\textsuperscript{143} Bloomer authorized others to build the machine with a license that limited the number of machines that could be built and their location, as well as the owner's ability to transfer the machines to others.\textsuperscript{144} McQuewan's license authorized him to construct and use the machines in Pittsburg and Allegheny County, Pennsylvania.\textsuperscript{145}

As the patent approached expiration Woodworth, whose very substantial royalties were based on the square feet of surface area that went through the machine, lobbied Congress for retroactive extension of the patent term. Congress responded twice, first with a provision in the 1836 Patent Act extending the patent term and making the extension retroactive to cover patents that had already been issued.\textsuperscript{146} Second, after Woodworth's death in 1839, his son lobbied Congress and obtained an additional seven-year retroactive extension that covered only Woodworth's patent, mentioned by name.\textsuperscript{147} A federal court in Ohio upheld the second extension

\textsuperscript{140} See Hovenkamp, \textit{Inventing Classical Constitution}, supra note 2 at ___

\textsuperscript{141} Bloomer v. McQuewan, 55 U.S. 539 (1852).

\textsuperscript{142} Nathan Rosenberg, “America's Rise to Woodworking Leadership,” in \textit{AMERICA'S WOODEN AGE: ASPECTS OF ITS EARLY TECHNOLOGY} 37 (Brooke Hindle ed., 1975)


\textsuperscript{144} \textit{Bloomer}, 55 U.S. at 555–56.


\textsuperscript{146} Patent Act of 1836, Ch. 357, 5 Stat. 117 § 8 (July 4, 1836).

against a claim that patent terms could only be extended by general legislation. Using a land analogy, the court reasoned that Congress had the power to make different public land grants to different grantees and could grant different parcels for different terms. Subsequently, however, when Woodworth's son requested yet another extension there was a large public outcry of unfair monopoly.

McQuewan had acquired the machines in question under the sublicense from Bloomer and paid royalties until the original patent's expiration. After the term was extended Bloomer insisted on reviving the royalties and sued for infringement when McQuewan refused to pay. To a Jacksonian the retroactive and single-owner term extensions represented the worst form of legislative capture, recalling all of the evils of the monopoly bridge franchises and the resulting changes in Contract Clause doctrine. Chief Justice Taney's opinion for the Court rejected Bloomer's infringement claim. The judge-made “first sale” doctrine that the Court developed, however, was much broader than needed for the purpose at hand. The Court held that “when the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly.... The machine becomes his private individual property.” That rule, which survives to this day, does not depend on the lawfulness of any legislative term extension. It can apply to a patented article at any time. Its effect has been to limit the restrictions that patentees can place on technology after a patented product has been sold.

The patent first sale, or "exhaustion," doctrine is a judge made rule that is intended to limit the scope of the patent “monopoly” in an area where both the Constitution's Patent Clause and the Patent Act are silent. Chief Justice Taney was also concerned that retroactive patent extensions could serve to withdraw a property right from someone who had already purchased the patented good in the reasonable expectation that license restrictions would end when the patent expired. Here, in one of his most prescient and important utterances, he invoked the Fifth

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149 Id. at 730–731.


151 See Hovenkamp, Inventing Classical Constitution, supra note 2 at __.


Amendment Due Process Clause, very likely because the Contract Clause was not available in an action involving a federally-created right:

The right to construct and use these planing machines, had been purchased and paid for without any limitation as to the time for which they were to be used. They were the property of the respondents. Their only value consists in their use. And a special act of Congress, passed afterwards, depriving the appellees of the right to use them, certainly could not be regarded as due process of law.\(^{155}\)

While Congress had the power to grant patents, it did not have the authority “to reinvest in [the patent holder] rights of property which he had before conveyed for a valuable and fair consideration.”\(^{156}\) Taney recited a parade of horribles under which innocent purchasers might acquire goods that are out of patent, but that patent rights could then spring up as a result of a retroactive Congressional term extension and limit their usefulness or require payment of a royalty.\(^{157}\)

In anticipating substantive due process doctrine, Taney's discussion reflects a deep suspicion of legislative capture and of the threat to settled expectations in property rights. He might have added that a retroactive term extension such as the Woodwards obtained from Congress did not serve to incentivize anything, for this patent had already been issued.

Although Taney cited "due process" as the rationale for his decision, the facts of *Bloomer* actually come much closer to the core concerns of Contract Clause doctrine than to what became economic substantive due process. The disanalogy was that the challenged term extensions came from the federal government rather than a state. *Bloomer's* principal concern was retroactive legislation that undermined settled expectations in a sale of property that had already occurred. That was consistent with the Contract Clause, which also barred the states from making ex post facto laws.\(^{158}\) Further, the retroactive term extension represented precisely the type of special interest generated favoritism for a single patent that the 1836 Patent Act sought to avoid.

**Federalism and the Patent "Property" Right**

Under the pre-classical system patents were treated as exclusive privileges granted in exchange for a promise to develop economic infrastructure. They were issued, supervised, and if need be revoked by the same legislative body. A good example is the state-issued steamboat

\(^{155}\) *Bloomer*, 55 U.S. at 553–554.

\(^{156}\) *Id.*

\(^{157}\) *Id.* at 684.

\(^{158}\) U.S. CONST., Art. I, Section 10, cl. 1 (“No State shall ... pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts....”).
patents previously discussed. \textsuperscript{159} When patents are regarded as "property," however, their character changes. First, the issuance process becomes more regularized and removed from the political process. Second, the patent owner acquires greater discretion about whether and how the patent will be used. Third, as a property right the patent cannot be invoked at a legislature's behest, but only through judicial process.

Issues having to do with the management of property rights have traditionally been distinctively a part of state law, with federal law providing occasional limitations. Because patent property is created in the first instance by federal law, this division of power is more complex. Federal law determines the conditions for issuing a patent and its proper scope. Federal law also governs infringement actions, because these involve questions of validity and location of boundaries, two parts of the definition of the property right. Except for infringement actions, however, state law kicks in after a patent is issued and governs most issues of licensing, transfer and descent.

Increasingly after the Civil War the Supreme Court treated patents as a species of property, having many of the same constitutional protections as other forms of property. For example, it concluded in 1871 that "Inventions secured by letters patent are property in the owner of the patent, and as such are as much entitled to protection as any other property, consisting of a franchise, during the term for which the franchise or the exclusive right is granted."\textsuperscript{160} In its 1888 	extit{Bell Telephone} decision the Supreme Court confirmed that once a patent had been issued it could be revoked only by the courts and upon proof of improper issuance. The Court relied almost exclusively on the law of government grants of land titles, rejecting the patentee's objection that the Court's "reference[s] exclusively to patents for land ... are not applicable to patents for inventions and discoveries."\textsuperscript{161} The court added:

The patent, then, is not the exercise of any prerogative power or discretion by the president, or by any other officer of the government, but it is the result of a course of proceeding \textit{quasi}judicial in its character, and is not subject to be repealed or revoked by the president, the secretary of the interior, or the commissioner of patents, when once issued.\textsuperscript{162}

\textsuperscript{159} See discussion \textit{supra}, text at notes __.


\textsuperscript{162} 128 U.S. at 367.
The legal structure that emerged gave the federal government a great deal of discretion to manage patent issuance, which was controlled entirely by the Patent Act. However, once the patent was issued it was transformed into a property right with considerable insulation from subsequent regulatory control. Under the United States Constitution, property rights are so strong that they often take precedence over developmental needs. An ironic result was that patent law in the United States -- the set of legal rules that should be most explicitly concerned with innovation -- developed in relative isolation from economic theories of development or economic growth. Patent lawyers disputing patent validity and scope have traditionally behaved much more like property lawyers disputing boundaries rather than, say, antitrust lawyers trying to base legal rules on observations about industrial performance.\textsuperscript{163}

**Federal Law: Patent Eligibility and Scope**

The 1836 Patent Act was passed amidst a debate about patent issuance and patent quality, with critics protesting that under the then existing registration system far too many weak patents were being issued. The Senate Report concluded that a "considerable portion of all the patents granted are worthless and void." Further, patent litigation had been "daily increasing in an alarming degree" and is "onerous to the courts, ruinous to the parties, and injurious to society."\textsuperscript{164} The *Report* concluded that under the existing system:

> The county becomes flooded with patent monopolies, embarrassing to bona fide patentees, whose rights are thus invaded on all sides; and not less embarrassing to the community generally, in the use of even the most common machinery and long-known improvements in the arts and common manufactures of the country.\textsuperscript{165}

The 1836 Patent Act attempted to address these problems by creating the modern Patent Office with an appointed Commissioner who had the authority to appoint one or more "examining clerk[s]" to evaluate applications for patentability.\textsuperscript{166} This examiner looked at each "alleged new invention or discovery" to determine whether the thing described in the application "had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant ...."\textsuperscript{167} In addition, the examiner had to make sure

\begin{footnotesize}
\footnotesize\textsuperscript{163} See Hovenkamp, OPENING, supra note 46, 184–205; Hovenkamp, Antitrust and the Patent System, supra note __.

\textsuperscript{164}Report Accompanying Senate Bill No. 239, S. Doc. No. 24-238, at 3 (1836).


\textsuperscript{166} Patent Act of 1836, Ch. 357, 5 Stat. 117 (July 4, 1836).

\textsuperscript{167}Id. at § 7.
\end{footnotesize}
that the subject of the application had not been patented previously or described in a printed
publication in either the United States or a foreign country, or had been “in public use or one sale
with the applicant's consent prior to the application.”\footnote{168} Once these conditions for patentability
had been satisfied, ”it shall be his [the Commissioner's] duty to issue a patent....”\footnote{169} If the
applicant believed the application should have been approved but the Commissioner disagreed,
then the applicant could take the application to a review panel of "three disinterested persons,
who shall be appointed for that purpose by the Secretary of State," and one of whom was an
expert in the relevant area.\footnote{170} Final decisions of the panel could be challenged in court.\footnote{171}

The examination process recognized in the 1836 Patent Act and elaborated in the 1870
Act took concerns of economic development almost entirely out of the picture. None of the
criteria explicitly linked patentability to socially productive innovation. While the Act required
the Commissioner to ensure that the alleged invention was “useful,”\footnote{172} that requirement had
largely become meaningless and, in any event, never referred to marketability or the filling of an
important need, things that had been deemed essential to the issuance of early patents.\footnote{173}
Chancellor Kent believed that patents had to be “to a certain degree beneficial to the community,
and not injurious, or frivolous, or insignificant.”\footnote{174} Justice Story, who generally favored broad
monopoly grants, argued that the utility requirement should mean no more than that the
invention must not be “frivolous or injurious to the well-being, good policy, or sound morals of
society.”\footnote{175} Judicial interpretation under the 1836 Act increasingly adopted the Story view.\footnote{176}
Increasingly courts rejected inquiries into usefulness in patent validity litigation unless the only
functions of the challenged device were immoral.\footnote{177} At the same time, applicants became entitled
to a patent unless the examiner concluded that their patent application failed to meet one of the
technical criteria for patentability. There was no applicant promise to deploy the patented

\footnote{168} \textit{Id}. \\
\footnote{169} \textit{Id}. (emphasis added). \\
\footnote{170} \textit{Id}. \\
\footnote{171} \textit{Id}. at § 12. \\
\footnote{172} \textit{Id}. at § 7. \\
\footnote{173} \textit{See,e.g.,} Whitney v. Carter, 29 F.Cas. 1070, 1071–1072 (C.C.D. Ga. 1810) (on the social usefulness of
the Whitney cotton gin). \\
\footnote{174} 2 KENT, COMMENTARIES, supra note 225, at 369. \\
\footnote{175} Lowell v. Lewis, 15 F.Cas. 1018 (C.C.D.Mass. 1817). \\
\footnote{176} WILLARD PHILLIPS, THE LAW OF PATENTS FOR INVENTIONS 142 (1837) \\
\footnote{177} \textit{See} Bracha, Owning Ideas, supra note 95, Ch. 4, nn. 81–82 (collecting decisions).
invention, and nothing limiting a right to bring an infringement suit on an unused patent. Courts applying the statute seldom had an opportunity to query whether the patent in question satisfied a perceived economic need.

The 1836 Patent Act also introduced the requirement of patent “claims,” which were greatly elaborated in the 1870 Act and Supreme Court decisions. Claims became analogous to the "metes and bounds" in a real property deed. They had to “particularly specify and point out the part, improvement, or combination, which [the applicant] claims as his own invention or discovery.” Each claim operated as a kind of “boundary line” specifying exactly what the patentee claimed to be new and patent-worthy in his invention. The rise and rapid expansion of patent claiming doctrine, already underway in judicial decisions, pulled questions about patent validity and scope away from analysis of the central contribution of a patent and toward the precise location of its boundaries. Today the process is described as “peripheral” claiming, emphasizing its focus on boundary location.

Patent law became more technical, with more strenuous requirements tied to disclosure of specific technology that was said to be in the possession of someone who could show that he was an “inventor.” In sum, the classical patent was no longer be regarded as an inchoate "promise to develop" implicit in the steamboat patents.

An essential part of this transformation was that patent issuance had to become a ministerial process, but one in which security of titles could be ensured. The Jackson era did the same thing for business corporations by creating general incorporation acts that assessed objective criteria for corporate status. So too later versions of the federal Patent Act objectified the standards for entitlement to a patent, in the process removing state issued patents from the picture. Beginning with the 1836 Act the patent system developed most of its prominent modern features -- mainly, intense scrutiny at the pre-issuance stage by a government official, making sure that technical requirements have been met, but very little scrutiny once a patent issued. The patent entered the stream of commerce as a property right, pure and simple. Its subsequent use was largely a question for the owner and state commercial law.

**Regulation of Issued Patents: From State Law to Progressive Federal Expansion**


180 HOVENKAMP ENTERPRISE, note 23 at 11-16.
Under the classical conception of the patent the individual states lost the power to determine entitlement to a patent or the scope of the patent property right. But the Constitution's IP clause authorized Congress to do no more than "secure" the exclusive patent right. Once a patent was issued and entered the stream of commerce, its management as a property right largely befell the states. That division of responsibility has very largely persisted, although with qualifications emanating from the first sale doctrine, federal antitrust, and misuse policy. Federal law defines entitlement to a patent, its appropriate scope, and enforcement power by means of infringement actions. By contrast, state commercial law determines questions about licensing, assignment, and descent.\textsuperscript{181}

\textbf{State Patent Regulation}

Prior to the Supreme Court's decision in Erie v. Tompkins the line between federal and state law was often indistinct, particularly where the rule of commercial law in question was thought to be "general" as opposed to "local," and came from the common law.\textsuperscript{182} The federal courts had no obligation to defer to state law but rather followed the general law, or their own view of the best law on the subject.\textsuperscript{183} A case in point is Brooks v. Byam, decided by Supreme Court Justice Joseph Story while he was riding circuit in Massachusetts.\textsuperscript{184} Brooks came only a year after Justice Story's opinion for the Supreme Court in Swift v. Tyson, which first established the "general law" rule for the federal courts.\textsuperscript{185} The question in Brooks was whether a license to practice a patent on friction matches could be subdivided among six different sublicensees

\textsuperscript{181} The 1836 federal statute authorized assignments and required that they be in writing and recorded, but said little beyond that. See 1836 Patent Act, \textit{supra} note 166, §11:

\begin{quote}
... every patent shall be assignable in law, either as to the whole interest, or any undivided part thereof, by any instrument in writing; which assignment, and also every grant and conveyance of the exclusive right under any patent, to make and use, and to grant to others to make and use, the thing patented within and throughout any specified part or portion of the United States, shall be recorded in the Patent Office within three months from the execution thereof, for which the assignee or grantee shall pay to the Commissioner the sum of three dollars.
\end{quote}

Section 14 additionally provided that assignees as well as original patentees could bring infringement actions. Id., §14.

\textsuperscript{182} See HOVENKAMP, ENTERPRISE, \textit{supra} note 23, at 79-92.

\textsuperscript{183} Erie v. Tompkins, 304 U.S. 64 (1938). On Erie's impact on intellectual property law, see HOVENKAMP, OPENING OF AMERICAN LAW, \textit{supra} note 46 at 292-295.

\textsuperscript{184} Brooks v. Byam, 2 Story 525, 4 F.Cas. 261 (C.C.D.Mass. 1843).

\textsuperscript{185} Swift v. Tyson, 41 U.S. 1 (1842).
independently, who could then practice the patent in competition with one another. Justice Story first observed that the federal Patent Act did not speak to the issue. He then looked to the general common law and applied the ancient British rule in Mountjoy's Case, which had held that a license to take sod and gravel could not be subdivided among difference users unless the users committed to operate it jointly as "one stock," or effectively as a partnership.

No state statute addressed the issue either, and Justice Story did not say whether the presence of such a statute would have affected the outcome. Increasingly after the 1870s, however, the federal courts began to defer to state statutes regulating the assignment and licensing of patent rights, provided that the statutes did not interfere with the federal prerogative to secure the rights in the first place.

For example, the courts upheld state statutes extending the Statute of Frauds by requiring transfers of patents to be in writing and to authenticate or provide evidence of patent ownership. The courts were more divided on state statutes that limited the negotiability of promissory notes used in purchase of patent rights unless the note clearly stated that the underlying consideration was a patent. Some courts viewed these statutes as indicating that, while a patent was a form of property, it was somewhat less secure than tangible property rights. As a result a bona fide assignee of a promissory note had a right to know that the underlying interest was a patent rather than real or tangible personal property whose title was less likely to be disputed. As one Michigan decision striking down such a statute observed:

The plain and avowed purpose of the statute of 1871 is to impose conditions on the transfer of patent rights, which do not apply to any other kinds of property, thereby interfering with the value and enjoyment of such rights, and treating them as a species of interests to be regarded with disfavor.

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186 Brooks, 4 F.Cas. at 267, referring to Patent Act of 1836, 5 stat. 121, § 11.

187 Earl of Huntington v. Lord Mountjoy [Mountjoy's Case], Godb. 17, Moore 174, 123 Eng. Rep. 488 (C.P.D. 1583). This application of the Mountjoy rule, which had involved rivalrous sod and gravel, was incorrect for a situation involving a nonrivalrous patent. See BOHANNAN &HOVENKAMP, CREATION WITHOUT RESTRAINT, note 128 at 326-328.

188 Wyatt v. Wallace, 55 S.W. 1105 (Ark. 1900); Brechbill v. Randall, 102 Ind. 528, 1 N.E. 362 (1885); Hollida v. Hunt, 70 Ill. 109 (1873).

189 Upholding such statutes: State v. Cook, 107 Tenn. 499, 64 S.W. 720 (1901); Tod v. Wick, Bros. & Co., 36 Ohio St. 370 (1881); Haskell v. Jones, 86 Pa. 173 (1878). But see Cranson v. Smith, 37 Mich. 309 (1877) (striking down state statute requiring note to disclose that its consideration was a patent right, as being in conflict with federal law, which assessed no such requirement); accord Wilch v. Phelps, 14 Neb. 134 (1883).

190 Cranson, supra, 37 Mich. at 311.
However, the court continued, questions concerning the validity of federal patent rights was for Congress and "that body alone" to determine.\textsuperscript{191}

In 1906 the Supreme Court confirmed the general division between federal and state law on questions of post-issuance commerce. Allen v. Riley upheld a state statute requiring copies of a patent and affidavits of genuineness to be attached to any commercial transfer of patent rights.\textsuperscript{192} Justice Peckham's opinion for the Supreme Court distinguished a hypothetical state statute that prevented the transfers of federal patent rights, which would be in conflict with federal law, from the actual statute which did no more than police fraud.\textsuperscript{193} "There is great opportunity for imposition and fraud in the transfer of intangible property, such as exists in a patent right, and many states have prescribed regulations for the transfer of such property differing essentially from those which control the transfer of other property."\textsuperscript{194}

Another area where the Patent Act left considerable room for state regulation concerned the immoral or unsafe uses of patented products or processes. As noted previously,\textsuperscript{195} while the federal Patent Act assessed "usefulness" as a requirement for patent eligibility, the requirement was soon watered down to refer only to things that had no purpose other than illegality or immorality. Beyond that, the regulation of patented goods on grounds of safety or immorality largely befell the states. In the early leading decision in Vannini v. Paine the defendant had what is best described as a business method patent on a system for drawing lottery numbers.\textsuperscript{196} The decision came down during the high tide of Jacksonian evangelical fervor against lotteries.\textsuperscript{197} The Delaware legislature had already determined that lotteries are "pernicious and destructive to frugality and industry and introductive of idleness and immorality." As a result, the court held, it "cannot be admitted that the plaintiffs have a right to use an invention for drawing lotteries in this State, merely because they have a patent for it under the United States."\textsuperscript{198} In its 1878 Patterson decision the Supreme Court held the defendant's patent on a particular fuel oil did not suffice to defend against a state statute that prohibited use of the oil because its burning

\textsuperscript{191}Ibid.


\textsuperscript{193}203 U.S. at 352-353.

\textsuperscript{194}Id. at 353.

\textsuperscript{195}See discussion supra, text at notes ___.

\textsuperscript{196}Vannini v. Paine, 1 Harr. 65, 1 Del. 65 (1832).

\textsuperscript{197}On increasing legislative history toward lotteries during the Jackson era, see HOWENKAMP, OPENING OF AMERICAN LAW, supra note 46 at 256-258.

\textsuperscript{198}Vannini, 1 Del. at 68.
temperature was unsafely low.\textsuperscript{199} Dicta in Justice field's opinion for the Supreme Court in \textit{Webber} illustrated the rationale and limit for this power in the states:

\begin{quote}
The patent for a dynamite powder does not prevent the State from prescribing the conditions of its manufacture, storage, and sale, so as to protect the community from the danger of explosion. A patent for the manufacture and sale of a deadly poison does not lessen the right of the State to control its handling and use.\textsuperscript{200}
\end{quote}

The Classical Patent in Decline: Federalism, the First Sale Doctrine, and the Invasion of Competition Law

Both federal and state law potentially reached post-issuance patent restraints that were thought to be anticompetitive. The Sherman Antitrust Act had been passed in 1890, but it made no mention of patents and played only a minor role in policing anticompetitive patent practices prior to the 1920's. The principal exception was the government antitrust prosecution of the \textit{Standard Sanitary} cartel in 1912. The Court agreed that a market wide cartel in enameled ironware such as bathroom sinks could not defend by showing that the price fixing agreement was contained in a patent license covering the enameling process.\textsuperscript{201}

But federal antitrust was not the only source of competition law. In \textit{Pope Mfg. Co. v. Gormully} the Supreme Court refused to enforce on equitable grounds an exclusive dealing agreement -- in this case, the promise by a licensee/manufacturer of bicycles that it would not import or sell any patented bicycles produced by competitors.\textsuperscript{202} The Court did not mention the Sherman Act, which had been passed two years earlier. Then, in 1907 the Supreme Judicial Court of Massachusetts held that the Tenth Amendment reserved to the states the power to regulate practices such as exclusive dealing when contained in patent licenses.\textsuperscript{203} While the


\textsuperscript{200}\textit{Webber v. State of Va.}, 103 U.S. 344, 347 (1880)

\textsuperscript{201}\textit{Standard Sanitary Mfg. Co. v. United States}, 226 U.S. 20 (1912). See also \textit{Bauer & Cie v. O'Donnell}, 229 U.S. 1 (1913), which refused to enforce a resale price maintenance agreement in a patent license. Although the Supreme Court cited its opinion two years earlier in \textit{Dr. Miles Med. Co. v. Jon D. Park & Sons Co.}, 220 U.S. 373 (1911), which had condemned RPM under the antitrust laws, Bauer in fact relied on the first sale doctrine and did not cite the Sherman Act.

\textsuperscript{202}\textit{Pope Mfg. co. v. Gormully}, 144 U.S. 224 (1892).

\textsuperscript{203}\textit{In re Opinion of the Justices}, 193 Mass. 605 (1907). See also \textit{Missouri ex rel Baltimore & Ohio Tel. Co. v. Bell Tel. Co.}, 23 F. 539 (C.C.E.D. Mo. 1885). See also \textit{State ex rel. Postal Tel. Cable Co. v. Delaware & A. Tel. & Tel. Co.}, 47 F. 633 (C.C.D. Del. 1891) (state common carrier obligation imposed on telephone company to serve everyone overrode patent license restriction preventing telephone company from providing a telephone to a competing telegraph company). Cf. \textit{J. R. Watkins Med. Co. v.}
Patent Acts have authorized patentees to issue exclusive licenses, they did not authorize exclusive dealing. The distinction is important. An exclusive license benefits the licensee by creating a commitment that the patentee will not license a competitor to practice the patent in the area covered by the exclusivity provision. By contrast, exclusive dealing limits the power of a licensee to obtain competing goods, whether patented or not, from someone else.

Closely related to exclusive dealing was tying, or the patentee’s requirement that a licensee could practice a patent only by using it with additional goods (whether patented or unpatented) purchased from the patentee. Both practices were thought to make downstream markets less competitive by limiting the range of products that resellers could sell. Several cases arose around the time the Sherman Act was passed, but that statute’s condemnation of agreements "in restraint of trade" said nothing specific about tying and exclusive dealing. Further, there was very little case law suggesting that either practice restrained trade at common law. As a result the Sherman Act played almost no role in the development of tying law prior to the 1930s except for a brief mention in the Motion Picture Patents case, which cited it as an alternative ground for refusing to enforce a tying requirement in a patent license.204

The Supreme Court first refused to enforce a patent tie in 1894, but relied on the first sale doctrine and did not mention the Sherman Act.205 The patentee sold its patented toilet paper dispenser subject to a license agreement requiring the purchaser to use only its own unpatentable toilet paper. The Court concluded that once the patentee sold the device to the purchaser it "passed out of the limits of the monopoly" and the purchaser was free to use it with or without the patentee's paper.

The Supreme Court quoted an earlier first sale decision, which had not involved tying, for the proposition that the first sale doctrine was intended to divide the territory between federal and state law:

‘When the patented machine rightfully passes to the hands of the purchaser from the patentee, or from any other person authorized to convey it, the machine is no longer within the limits of the monopoly. * * * By a valid sale and purchase, the patented machine becomes the private individual property of the purchaser, and is no longer protected by the laws of the United States, but by the laws of the state in which it is situated.’ 206

204 Motion Pictures Patents Co. v. Universal Film Co., 243 U.S. 502, 517 (1917). See discussion infra, text at notes __.


The first sale doctrine in patent law is entirely judge made, and its rationale has always been highly controversial. Some have argued that it was designed in furtherance of a policy about competition,\(^{207}\) others that it represents an unjustified interference in freedom of contract,\(^{208}\) and others that it was simply an exercise in statutory interpretation, which includes an assessment of the patent’s appropriate domain.\(^{209}\) But the doctrine was also used to divide the territory between federal patent law and competition law, whether federal or state. Nineteenth century courts often viewed the doctrine as policing the line between federal law, which governed patent issuance, and state law, which governed patent use as well as the use of patented products.

Writing in 1904 Albert Henry Walker, author of the most prominent of early twentieth century patent treatises, observed that:

> The reason why the state may regulate the sale of the patented thing, and may not regulate the sale of the patent covering that thing, is explainable as follows: A patentee has two kinds of rights in his invention; he has a right to make, use, and sell specimens of the invented thing, and he has a right to prevent all other persons from doing either of those acts. The first of these rights is wholly independent of the patent laws, while the second exists by virtue of those laws alone. The patentee, therefore, holds the first of these rights subject to the police power and the taxing powers of the state, and to the law regulating common carriers, while the second, being the creation of the laws of Congress, is wholly beyond state control or interference by antitrust laws or otherwise.\(^{210}\)

When the first sale doctrine applied, tying, exclusive dealing, resale price maintenance, and other patent licensing practices would not be preemptively approved as a matter of federal patent law. Rather, nonpatent statutory and common law would be left to control these practices. Then Sixth Circuit Judge Horace H. Lurton first exposed this problem in the *Button-Fastener* decision in 1896, which led to the Progressive critique that eventually federalized the law of exclusive dealing and tying. The *Button-Fastener* defendant made a patented machine that fastened button hooks to garments. A license restriction required purchasers to use the patentee's


own button hooks exclusively.\textsuperscript{211} The court refused to apply the first sale doctrine for the technical reason that the doctrine did not apply to "conditional" sales.

The Court acknowledged that regulation of the way a patented article is used would be within "the police power of the states."\textsuperscript{212} What it did not resolve, however, is that a state statute that forbade tying under these circumstances would be in direct conflict with its rule that the tying requirement could be enforced by a contributory infringement suit. "Contributory" infringement refers to the act of selling an article knowing that it will be used to commit patent infringement.\textsuperscript{213} As a result a state statute condemning tying would have prohibited the very thing that the Patent Act required.

Justice Lurton recognized this difficulty sixteen years later in Henry v. A.B. Dick, which was the proverbial straw that broke the camel's back. By that time he had been appointed to the Supreme Court by his former Sixth Circuit Colleague President William Howard Taft. He wrote the opinion in \textit{Henry} as well.\textsuperscript{214} The facts resembled those of the \textit{Button} case. A.B. Dick, a large manufacturer of office equipment, sold a mimeograph machine with notice of a license restriction that purchasers of the machine must also use its ink, paper, and stencils. When Sidney Henry sold a can of a competitor's ink to a user of the machine the patentee brought an action for contributory infringement, which the Supreme Court sustained. This time Justice Lurton's opinion for the Court observed that the question of tying of patented products was not addressed by the Patent Act. Nor was it prohibited by the Sherman Act, which did not reach monopolies created by patent.\textsuperscript{215} However, writing against the background of then existing substantive due process law, Lurton noted that state law would permit intervention in a lawfully made contract only if the practice in question affected health or public safety, and he could not see how a tying arrangement had such an effect.\textsuperscript{216} In any event, he observed, state law would not have the power to undo a federally recognized action for patent infringement.\textsuperscript{217} In sum, \textit{Henry} suggested not only that a tying arrangement by means of a patent license restriction was lawful, but that

\textsuperscript{211}Heaton-Peninsular Button-Fastener co. v. Eureka Specialty Co., 77 F.288 (6th Cir. 1896).

\textsuperscript{212}Id. at 293.

\textsuperscript{213}Codified today at 35 U.S.C. 271(c), with the significant change that the provision does not apply to staple commodities capable of substantial noninfringing uses. If the statute had been in effect at the time it would not have applied to the ink sale because the ink was clearly capable of noninfringing uses.


\textsuperscript{215}224 U.S. at 29-30 (Sherman Act does not apply to monopolies created by patent).

\textsuperscript{216}224 U.S. at 29. See HOVENKAMP, OPENING OF AMERICAN LAW, \textit{supra} note 46 at 243-262.

\textsuperscript{217}224 U.S.at 229-230.
state law would be powerless to interfere with federal patent law. In the process he reached the same conclusion about then existing federal antitrust law.

Henry’s critics argued that the Supreme Court was overlooking the fact that a patentee could use a tie to create a second monopoly in an unpatented article, and that the Patent Act provided no such authority.\textsuperscript{218} The Congressional reaction was strong. Seeking to strike at both the previously discussed \textit{Paper Bag} decision\textsuperscript{219} and \textit{Henry}, Senator William Oldfield from Arkansas offered a bill amending the Patent Act by requiring compulsory licensing of any patent that was not being practiced within four years of issuance.\textsuperscript{220} A second section provided that one who purchased a patented article was free to use it with unpatented complementary products without restriction.\textsuperscript{221}

Congress responded in 1914 by amending the antitrust laws rather than the Patent Act. Section 3 of the Clayton Act\textsuperscript{222} did nothing about refusals to license unpracticed patents. However, it did limit tying and exclusive dealing. The provision applied to both sales and leases, thus reaching further than the first sale doctrine, and also to goods “whether patented or unpatented.” Finally, it did not create a per se prohibition, but rather condemned tying and exclusive dealing only “where the effect ... may be to substantially lessen competition or tend to create a monopoly in any line of commerce.”\textsuperscript{223}

The Supreme Court promptly reversed course, overruling \textit{Henry} and condemning a patent tie in the 1917 \textit{Motion Picture Patents} Case.\textsuperscript{224} The Court acknowledged that it was "confirmed" in its conclusion refusing to enforce the tie by the newly passed Clayton Act.\textsuperscript{225} Thereafter it proceeded on an expansionist course that significantly federalized the law of patent licensing when the license agreements were thought to be anticompetitive or asserted patentee power

\textsuperscript{218} See Note, \textit{Control of Patentee over Unpatented Commodities}, 25 HARV. L. REV. 641, 642 (1912).

\textsuperscript{219} Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405, 429 (1908); see discussion supra, text at note 128.


\textsuperscript{221} Id., § 32.

\textsuperscript{222} 15 U.S.C. § 14 (prohibiting tying and exclusive dealing in contracts for goods, “whether patented or unpatented.”).

\textsuperscript{223} \textit{Ibid.}

\textsuperscript{224} Motion Pictures Patents Co. v. Universal Film Co., 243 U.S. 502 (1917).

\textsuperscript{225} \textit{Id.} at 517.
"beyond the scope" of the patent. In 1931 it refused to enforce a patent license tying dry ice, a common unpatented commodity, to the defendant's refrigerator boxes. In 1936 it condemned IBM's tie of patented computers to patented data processing cards. The machines were leased, so the first sale doctrine did not apply. Sixteen years later it created a virtual per se rule against tying arrangements when one of the products in question was patented. In the 1960s it refused to enforce a license agreement requiring royalty payments that extended beyond the patent's expiration date -- a rule that the Supreme Court affirmed in 2015 on *stare decisis* grounds.

In sum, the first sale doctrine limited the ability of patentees to impose license restrictions under the Patent Act preemptively, effectively opening the door for state law that might wish to condemn these restrictions. The expansion of antitrust law subsequent to the passage of the Clayton Act federalized this power, expanding it to leases and other transactions where the first sale doctrine would not ordinarily apply. Under both federal and state law tying, exclusive dealing and resale price maintenance all became independently unlawful and it did not matter whether the restrictions were in a patent license. The emergent federal doctrine of patent "misuse" performed largely the same function, except within Patent Law and even when no federal or state statute was on point. The classical patent had started to crumble.

**Conclusion: Patents, Economic Development, and Property Rights**

Whether property or not, one distinguishing historical feature of patents is their explicit Constitutional rationale as an instrument of economic growth. The IP Clause gives Congress the authority to create a patent system in order to "promote the progress of science and useful arts." But policies about development and the State's role in furthering it change over time. Patent protection thought sufficient in one period might be seen as inadequate or excessive in

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228 International Business Machines Corp. (IBM) v. United States, 298 U.S. 131 (1936).


231 See Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488 (1942) (finding patent misuse in patentee's leases of patented salt injecting machines on condition that lessee use only its salt; because the machines were leased the first sale doctrine would not apply).

another. Today the patent system has been made subject to unprecedented empirical analysis, much of which has either questioned the wisdom of patents in some markets or determined that different markets should have different amounts or types of protection.\(^{233}\) By contrast, property rights tend to create ratchets, permitting interests to be expanded but not contracted without compensation to their owners. This is in sharp contrast to antitrust law, which is also concerned with economic development but has never given its protections or liabilities the status of property rights. As a result antitrust rules expand and contract over time, always without compensation to those who are injured by the changes.

Nineteenth century changes in United States patent law were heavily driven by classical beliefs that monopoly is bad and generally unnecessary for economic growth, with invention as a narrow exception. This entailed, first, that the conditions for obtaining a patent be narrow, limited to actual inventions within the applicant's possession, and adequately disclosed. Second, the system had to be made nondiscretionary and free from capture. Individual patent grants were no longer a matter of legislative prerogative. Rather, the applicant was entitled to a patent if he could make specific showings concerning prior technology and use. The "prior art" queries that increasingly dominated patentability doctrine focused on what had been available in the past, rather than what economic development might require for the future. Finally, once a patent was issued the government very largely abandoned its interest. The patent entered commerce as personal property, creating individual rights but nearly no social obligations. Together these requirements led both Congress and the courts away from relatively open ended policy concerns and toward technical specification and boundary clarity. The result was a patent system increasingly detached from questions about economic development.