July 2015

The Legal Form of Liberalism: A Study of Riparian and Nuisance Law In Nineteenth Century Ohio

E. P. Krauss

THE LEGAL FORM OF LIBERALISM: A STUDY OF RIPARIAN AND NUISANCE LAW IN NINETEENTH CENTURY OHIO

by

E. P. KRAUSS*

INTRODUCTION

The growth of a distinctively American legal form during the nineteenth century is an historic event comparable to Justinian's codification of Roman law, the Bolognese revival, the invention of the common law in the time of Henry II, the rise of English Chancery equity, and the propagation of the Code Napoleon in Europe.[1] Each of these developments marks the coalescence of prevailing dynamic social relations into a distinct legal form that then became a central characteristic of the age that invented it. Unlike the evolution of a legal fiction, or the erosion of a rule by exceptions, these signal historic events are not mere aids to understanding or pragmatic problem-solving devices confined to the realm of ideas and persuasion. They are not "solutions" to "social problems." They are parameters of social revolutions.

The nineteenth century was involved in the social revolution that brought about the age of liberalism. This revolution can be analyzed in terms of the philosophy of the Enlightenment, or technological innovation, or the capitalist mode of production, or absolutist rule and representative democracy. These are the observable characteristics of concrete historical reality. They are moments in a single revolutionary heritage that supplies each moment with its meaning. The social revolution of modern times has, like the social revolutions of the past, progressively obliterated the preceding epoch's consciousness and with it the kernel of revelation that sustained it.[2] Unlike the social revolutions of the past, ours has supplied us with the capability of bringing human history to its final conclusion. If we are indeed the masters of our own fate, it behooves us to know what we are doing. Hence, an enlightened knowledge of the age in which we live is more desperately needed now than it has ever been before. Our survival depends upon it.

The importance of the nineteenth century is that that is the time when the

---

*Assistant Professor of Law, Salmon P. Chase College of Law, Northern Kentucky University.

[1] *See generally:* W. BUCKLAND, A TEXT-BOOK OF ROMAN LAW FROM AUGUSTUS TO JUSTINIAN (2d ed. 1950); S. MILSOM, HISTORICAL FOUNDATIONS OF THE COMMON LAW (2d ed. 1981); J. MERRYMAN, THE CIVIL LAW TRADITION (1969).

[2] This reflects the view of history contained in the philosophical writings of Walter Benjamin. *See, e.g.,* W. BENJAMIN, ILLUMINATIONS (1968); *see also* R. WOLIN, WALTER BENJAMIN, AN AESTHETIC OF REDEMPTION (1982).

age of liberalism developed its legal form.[3] In Europe this development occurred within the civil law tradition. Its predominant formal characteristic was codification, and methodologically it culminated in the "general theory of law" produced by civilian "legal science." The central concepts of nineteenth century civilian legal science were the "legal subject" and the "juridical act." These concepts established formal equality in terms of a universal equivalent called individual free will. Just as money is the universal equivalent whereby essentially different commodities are equated, the law of obligations of legal subjects having free wills abstractly established civil equality of persons. The egalitarian principle of liberalism is thus established by levelling society. By positing the equality of individuals' wills as a first principle, the notion of privilege was routinely obliterated.

In the common law tradition the egalitarian principle has been established in an entirely different form. Rather than assert the contractarian notion of free will as a levelling mechanism, common law societies have progressively expanded the sphere of privilege to include ever greater proportions of the general population. Thus, the common law, which was originally invented to provide legal remedies through the king's justice to the privileged class of freeholders,[4] was later extended to non-freeholders through equity and the trespass writs.[5] Unlike in France where the courts of privilege were destroyed by the revolution, English courts were revolutionized by an expansion of their jurisdiction. A greater equality was achieved by extending privileges to the previously underprivileged instead of withdrawing privileges from persons who enjoyed them.

In the nineteenth century the mantle of leadership in the liberalization of the common law passed from England to the United States. American jurists rejected the civilian model with its contractarian notion of equality based on individual free will.[6] Instead they posited as a first principle the sovereignty of

---

[3]The notion that law is the *form* of social relations is adopted from the work of E.B. Pashukanis. *See* E. PASHUKANIS, LAW AND MARXISM, A GENERAL THEORY (1978) (Note that the translator's title is inaccurate. The correct translation is "A Contribution to the Critique of the General Theory of Law." The "general theory of law" refers to the work of late nineteenth and early twentieth century civilian legal science, which identified certain general principles from which all civil law was derived).

[4]*See* S. MILSOM, THE LEGAL FRAMEWORK OF ENGLISH FEUDALISM (1976); *see also* D. SUTHERLAND, THE ASSIZE OF NOVEL DISSEISIN (1973). Indeed, the early possessory actions provided remedies for nuisances in the form of the *assize of nuisance* and the *assize of novel disseisin. See* Winfield, *Nuisance as a Tort,* 4 CAMBRIDGE L.J. 189 (1931).

[5]*See* S. MILSOM, *supra* note 1, at 82-96, 283-313. From about 1500 until the early nineteenth century the writ for nuisance was trespass on the case. *See* McRae, *The Development of Nuisance in the Early Common Law,* 1 U. FLA. L. REV. 27 (1948).

[6]The rejection of codification and civilian methodology did not take place without a struggle, nor was it complete. *See: Franklin, Concerning the Historic Importance of Edward Livingston,* 11 TUL. L. REV. 163 (1937); P. MILLER, THE LIFE OF THE MIND IN AMERICAN FROM THE REVOLUTION TO THE CIVIL WAR (1965); M. HORWITZ, THE TRANSFORMATION OF AMERICAN LAW, 1780-1860 (1977); C. COOK, THE AMERICAN CODIFICATION MOVEMENT, A STUDY OF ANTEBELLUM LEGAL REFORM (1981); *see also* Franklin, *The Historic Function of the American Law Institute: Restatement as Transitional to Codification,* 47 HARV. L. REV. 1367 (1934).

individual will and set about achieving freedom and equality by protecting liberty and privacy. Egalitarianism was established by extending the liberties of privilege to nearly universal application. Thus, security of ownership and individual dominion over property was a more fundamental concern than the abstract equality of contracting parties.[7] Moreover, the American jurists of the nineteenth century successfully developed the notion of private interests liberated from physicalistic images of property. Finally, they adapted the common law methodology of private law adjudication to public law controversies as well.[8] These three developments — universality of privilege, abstraction of private interest, and adaptation of private law methodology to public law adjudication — are essential characteristics of the form of liberalism that was developed in the nineteenth century and continues to prevail in the United States today.

Recent scholarship[9] of early nineteenth century American legal history has re-examined the role of private law adjudication during that "formative"[10] period of American law. The decisions reveal what has been characterized as "one of the great 'creative outbursts of modern legal history.'"[11] This "outburst" involved more than an increased activism in judicial law-making. The pattern of development reveals a quantum leap in judicial imagination that carried courts to the forefront of government in formulating and effectuating social policy. The rise of a "judiciary state,"[12] initiated in the public law sphere by *Marbury v. Madison,*[13] marks the appropriation by courts of pervasive authority to regulate conduct in civil society through their power to adjudicate controversies in the fields of property, contracts and torts.

The relatively unrestrained creativity of judicial law-making in the antebellum period laid the foundations for abstract notions of property interests,[14] the objective "will" theory of contracts,[15] and the "fault" theory of tort liability.[16] By the late nineteenth century these private law doctrines had been firmly established, and through a process of reasoned elaboration courts adopted the model of social relations contained in those doctrines to the contro-

[7]The fundamental categories of property and contract and the vagueries introduced by contemporary linguistic usage have been considered elsewhere. *See* Krauss, *On the Distinction Between Real and Personal Property,* 14 SETON HALL L. REV. 485, 511-18 (1984).

[8]This is an American innovation that has never been followed in England. Consequently, the United States stands as the most thoroughly common law system in the world.

[9]The leading example of this new scholarly inquiry is the work of Professor Horwitz of Harvard Law School. *See* M. HORWITZ, *supra* note 6.

[10]R. POUND, THE FORMATIVE ERA OF AMERICAN LAW (1938).

[11]M. HORWITZ, *supra* note 6, at 30 (quoting Daniel Boorstin).

[12]Franklin, *The Judiciary State I,* 2 NAT'L LAW. GUILD Q. 244 (1940), *The Judiciary State II,* 3 NAT'L LAW. GUILD Q. 27 (1940).

[13]5 U.S. (1 Cranch) 137 (1803).

[14]M. HORWITZ, supra note 6, at 31-62.

[15]*Id.* at 73-88.

[16]*Id.* at 85-99.

versies of the day.[17] Most important in this regard was the adaptation of the private law conceptualization of society to the mediation of conflict between public institutions and to controversies involving the opposition of public power and private interest.[18] In the alkahest of abstract interest the medieval common law privilege of a right of action was transmogrified in such a way that private interests, civil rights, and public authority became analytical analogies.

This essay tests the foregoing interpretation by examining the nineteenth century Ohio decisions in the fields of riparian and nuisance law. This data, as shall be shown, tends to confirm the conclusions of earlier scholarship.[19] In the third and fourth parts of this essay two decisions, one from the very beginning of the period under study,[20] and one from near the end,[21] will be considered. These two decisions help identify the developmental context within which judicial law-making passed from a creative to an elaborative phase by illustrating judicial attitudes toward protecting the public interest in 1831 and again in 1892.

I

The egalitarian ideal in America has always emphasized the noble bearing of the individual. Rather than condemn privilege as the hallmark of unjust hierarchy, the American conception of justice dictates that privileges shall be made available to all on an equal basis. Thus, social distinction, the socially distinct individual, becomes the basis for social equality. The right to be is secured by the right to be left alone. Privacy is the most sacred value. Society exists so that each individual may pursue her own destiny. However, American idealism is not self-effectuating. The pursuit of destiny is a real-world struggle for safety, happiness and peace.

During the early nineteenth century land ownership was the single most important expression and means of realizing basic social and economic values.[22] The state and federal constitutions conceived of the right of acquiring

---

[17] *Id.* at 253-66.

[18] *See* Krauss, *The Irony of Native American Rights,* 8 OKLA. CITY U.L. REV. 409, 431 (1983).

[19] Professor Horwitz' work relative to riparian and nuisance law is based on decisions of the courts in the Mid-Atlantic and New England states. *See* M. HORWITZ, *supra* note 6, at 31-62, 74-78.

[20] Cooper v. Williams, 4 Ohio 253 (1831), *aff'd* 5 Ohio 391 (1832).

[21] McClung v. North Bend Coal & Coke Co., 1 Ohio Dec. 187 (C.P. Hamilton 1892), *aff'd* 9 Ohio C.C. 259 (1895).

[22] Professor Hurst described the nineteenth century meaning of property rights in this way:

> "Vested rights" sounds like pure standpattism, as if it connoted merely protection of what is because it is, because nothing is valued more than stability. But on the whole, the nineteenth-century United States valued change more than stability and valued stability most often where it helped create a framework for change. The century so highly valued change because imagination could scarcely conceive that it could be other than for the better. We may look somewhat wryly on this faith, but we must acknowledge it as a prime fact in our nineteenth-century public policy making. Thus, the more one looks at the lines along which the vested rights doctrine grew, the less satisfied is he to appraise it

and preserving property as prior to the powers of government, and defined the just powers of government as a means for the protection of private property.[23]

American society, and Ohio in particular, were captivated with the idea of social progress, which in large measure was expressed in the form of public policy favoring economic development.[24] This policy was effectuated primarily through a discourse about private rights in the context of common law adjudication. In particular, judicial elaboration of the owner's right to use land, even though such use might be detrimental to the private interests of neighbors, articulated a vision of social progress and the good life.

This vision was not, however, founded upon the inherent wisdom of collective judgment. To the contrary, doctrines that proved advantageous to some, and detrimental to others, in their particular application, were justified on the grounds that such was the nature of things in general. The interest of the community was viewed as a social fact to be considered in reducing the "nature of things" to concrete expression, but the force of the idea of the "common good" was exhausted in the same moment that it was invoked. The judge saying his decision accorded with the common good said little more than the commander of troops who asserts that "God is on our side." The community as such denies its own power of social definition. Thus the object of community, the ideal community of the state, was the deployment of social power in the service of private interest, and the realization of human aspirations was consigned to the sphere of private life which came increasingly to be understood as a set of objectified human relations defined by the market.

Ohio society in the year 1900 would hardly be recognizable to settlers who arrived in the Ohio Valley in 1800. In the span of one hundred years, a frontier territory was transformed into one of the leading industrial centers of the world. The first American settlers of Ohio built their homes, cleared the

---

as a simple expression in favor of the status quo. Dynamic rather than static property, property in motion or at risk rather than property secure and at rest, engaged our principal interest.

J. HURST, LAW AND THE CONDITIONS OF FREEDOM IN THE NINETEENTH-CENTURY UNITED STATES 24 (1956).

[23]The fifth amendment to the United States Constitution provides in part, "nor shall any person . . . be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation." U.S. CONST. amend. V. The Ohio Bill of Rights provides:

> That all men are born equally free and independent, and have certain natural, inherent and unalienable rights; amongst which are the enjoying and defending of life and liberty, acquiring, possessing and protecting property, and pursuing and obtaining happiness and safety; and every free republican government, being founded on their sole authority, and organized for the great purpose of protecting their rights and liberties, and securing their independence: to effect these ends they have at all times a complete power to alter, reform or abolish their government, whenever they may deem it necessary.

OHIO CONST. art. VIII, § 1 (as it read in 1802).

[24] [I]n the United States the idea of an idealistic political mission soon became a part of a program of territorial conquest under the standards of manifest destiny and Young America. Progress in the spirit of the enlightenment was changed over into the more ruthless nineteenth-century pattern, but the idea itself remained and proved useful. The dogma of national progress now provided the verbalization of expansion — an expansion not only in territory but also in material prosperity and in cultural advantages. . . .

A. EKIRCH, THE IDEA OF PROGRESS IN AMERICA, 1815-1860 41 (1944).

land and raised wheat, corn, tobacco and other commodities in the valleys of the Ohio River and its tributaries, the Great Miami, Little Miami, Scioto and Muskingum Rivers. They used flat boats to float their harvest down the rivers to the market in New Orleans. Commerce along the rivers was essential to the economic survival of these pioneers. The period from 1830 to 1860 is marked by a revolution in transportation vastly improving Ohio's access to eastern markets and likewise facilitating importation of human, technological and capital resources.[25]

This revolution in transportation took place in two stages. The first was the construction of a system of canals completed in 1847.[26] At that time, inland waterways traversed the state from Lake Erie at Toledo and Cleveland to the Ohio River at Cincinnati and Portsmouth. Branch canals opened up dozens of previously inaccessible counties. The second stage was a wave of railroad construction from 1850 to 1857. The first railroad to operate in Ohio was the Kalamazoo & Erie line which opened in 1836. By 1851, there were rail connections from Lake Erie at Sandusky and Cleveland to Cincinnati. Still, in 1850 there were only 300 miles of railroad track in the state. The next few years saw intensive railroad construction continuing until a financial panic struck in 1857. By 1860 Ohio was criss-crossed by 3,000 miles of track.[27]

By 1860 Ohio had grown to be one of the leading states in agricultural production. The inception of manufacturing enterprises in the state's economy also dates to this period. At this time, the mills were run by water power. Consequently, many of the early decisions that developed the law of riparian rights and nuisance arose from the flooding or obstruction of waterways caused by mill dams.[28] A great many cases also were brought against railroads because of the fire hazard, dirt and noise caused by steam driven locomotives, and because of the obstruction of public ways by railroad construction.[29] The conflicting uses of property in both of these types of litigation involved a plaintiff's claim of natural use interfered with by the defendant's technological use. An undercurrent of a claimed right by virtue of prior appropriation seems present in many of the plaintiffs' cases.[30] In other words, the plaintiff, who was on the scene first, was objecting to the conflicting use of property by the new-comer defendant. The legal doctrine that developed in the context of these disputes

---

[25]*See generally* G. TAYLOR, THE TRANSPORTATION REVOLUTION, 1815-1860 (1951).

[26]The history of the canals and economic development of Ohio during this period is recounted in H. SCHEIBER, OHIO CANAL ERA: A CASE STUDY OF GOVERNMENT AND THE ECONOMY, 1820-1861 (1968).

[27]*Id.*; E. ROSEBOOM & F. WEISENBURGER, A HISTORY OF OHIO 321 (1934).

[28]*See, e.g.*, Cooper v. Hall, 5 Ohio 321 (1832).

[29]*See, e.g.*, Sargent v. Ohio & Mississippi R.R., 12 Ohio Dec. Reprint 23 (Super. Ct. of Cincinnati 1854).

[30]The "prior appropriation" rule, though never adopted in the eastern states, was adopted by constitutional provision in the western states. *See generally* J. POMEROY, A TREATISE ON THE LAW OF RIPARION RIGHTS (1887). In this century the western states have all modified the prior appropriation rule and introduced elements of the eastern riparian rule of "reasonable use" by judicial decision, statute, or constitutional amendment. *See, e.g.*, CALIFORNIA CONST. art. 14 §3.

insulated mill owners and railroad companies from liability in three ways: (1) legal force was given to a concept of *reasonable use* rather than natural use; (2) the defendant's use of property could be defended on the ground that it resulted in a *public benefit;* and (3) where the annoyance was deemed to be trivial the maxim, *de minimis non curat lex,*[31] was invoked.

The notion that there is no right to complain of a use of property that is "reasonable" shifts the focus of the cause of action from the damages suffered by the complainant to a consideration of the property rights of the defendant. In other words, the reasonableness of the use became a justification. Reasonable use as a defense arose in two contexts in the early decisions. One type of situation involved determining what constituted a reasonable use of water by a riparian proprietor. In this context, a particular use of a stream may have been held to be a reasonable use as a matter of fact.[32] The other application of reasonable use doctrine underlies a defense akin to statutory justification[33] which was called the "lawful enterprise" defense. Prior to the revision of the Ohio Constitution in 1851, there was no general incorporation statute. Corporations were created by special legislation. A corporation thus chartered enjoyed the status of a lawful enterprise, because it was created by an act of law. In nuisance cases, if the defendant was a lawful enterprise and the use of property was authorized by the corporate charter, the use was reasonable as a matter of law.[34]

With respect to riparian rights, the reasonable use standard replaced the earlier common law standard of "natural flow."[35] Under the natural flow standard, a riparian proprietor had a right to use the waters of a stream provided the natural flow of the stream was not diverted or diminished by the use. Prior to the nineteenth century a concept of reasonable use would not have been in conflict with the natural flow standard. Natural flow generally permitted the uses of a stream that would be called "reasonable" at that time — i.e., agricultural and domestic use.[36] With the advent of industrial uses of water power, the courts abandoned natural flow as a standard for resolving conflicts between riparian owners. Instead, the reasonableness of the defendant's use of the stream became a justification where the use prejudiced the rights of adjoining riparian proprietors. Industrial use of a stream for water power was declared to be a reasonable use by the Supreme Court of Ohio in 1856.[37] This de-

---

[31]The law does not concern itself with trifles.

[32]*See, e.g.,* McElroy v. Goble, 6 Ohio St. 187 (1856).

[33]M. HORWITZ, *supra* note 6, at 78-80.

[34]*See, e.g.,* Parrot v. Cincinnati, Hamilton & Dayton R.R., 3 Ohio St. 331 (1854).

[35]*"Aqua currit et debet currere, ut currere solebat,* is also the language of the ancient Common Law . . . That is, the water runs naturally, and should be permitted thus to run, so that all through whose land it runs may enjoy the privilege of using it." J. ANGELL, TREATISE ON THE LAW OF WATERCOURSES 94 (1854).

[36]McRae, *supra* note 5.

[37]McElroy v. Goble, 6 Ohio St. 187 (1856).

cision in essence made a value judgment that such a use of property is a social good, and the social costs associated with it must be absorbed by the innocent by-standers who happen to be in the way. This adjustment of broad social values in the context of private controversies is characteristic of the period.

In the case of lawful enterprises the state's power to establish economic policy was delegated to privately owned companies through the government franchise.[38] The effect of this delegation of decision-making power was twofold. Decisions made in the public interest became private action rather than state action, and the private action was in turn protected by a cloak of governmental authority.[39] The legal consequence of this relationship between government, private interests and the public interest was a limitation of liability in nuisance for franchised activities.

This result could not be obtained by either the government or the entrepreneur acting alone. A private investor acting alone would be subject to liability in public and private nuisance. The government, though not capable of creating a public nuisance, would still be subject to complaints of private nuisance. The delegation of governmental authority by franchise removed the possibility of liability in public nuisance because the public, through the legislature, had sanctioned the activity. By the terms of the franchise the government imposed a standard of care on the entrepreneur. As long as the proprietor adhered to the terms of the charter, the activity was deemed reasonable as a matter of law. Hence, the courts held that a lawful enterprise could not be a nuisance unless conducted in a negligent manner.[40] The introduction of a negligence concept in the context of lawful enterprise is part of the over-all scheme of limiting liability which led to the ascendance of modern negligence law somewhat later.[41] The policy implicit in the legal convolutions of the lawful enterprise defense is that the public derives benefits from the financial success of private enterprise, and it is not in the public interest to place restraints on economic development in the form of nuisance liability.

What remained implicit in the lawful enterprise decisions was made explicit when the courts began to recognize public benefit as a defense to an action for nuisance. The public benefit defense infuses a concept of public rights into private law nuisance actions. The statement of the Supreme Court of Ohio

[38]*See* W. HURST, LAW AND ECONOMIC GROWTH: THE LEGAL HISTORY OF THE LUMBER INDUSTRY IN WISCONSIN, 1836-1915 (1964).

[39]Note that "state action" prior to the adoption of the fourteenth amendment was typically raised as a defense. *See* Katz, *Studies in Boundary Theory: Three Essays in Adjudication and Politics*, 28 BUFFALO L. REV. 383, 397 (1979); *cf.* Parker v. Brown, 317 U.S. 341 (1943) (establishing the "state action" doctrine as a defense in antitrust litigation).

[40]In Parrot v. Cincinnati, Hamilton & Dayton R.R., 3 Ohio St. 331 (1854), the court held that because the defendant railroad was a lawful enterprise, a fire hazard and noxious vapors did not constitute a nuisance in the absence of proof of negligence. In Hogg v. Zanesville Canal and Mfg. Co., 5 Ohio 410 (1832), the court did not accept the lawful enterprise defense because the defendant milldam proprietor did not adhere to a term in the franchise agreement.

[41]On the genesis of modern negligence, *see* M. HORWITZ, *supra* note 6, at 85-89.

in *Cooper v. Hall,*[42] that "[w]ater power, for propelling machinery, is not abundant in Ohio; and the wants of the public require that what there is, should be used to the best advantage. . . ."[43] typifies the judicial attitude of the period. A pro-developmental economic policy was considered to be in the public interest, and consideration of economic and social policy was deemed an appropriate basis for the decision of private controversies.

There are two distinct legal rationales for the public benefit defense. One is an equitable notion that since the purported nuisance benefits the public, the plaintiff, as a member of the public, has derived benefits from it and, therefore, has no right to complain. The other line of reasoning involves balancing the rights of the individual against the rights of society. Viewed in these terms, the public benefit defense is a direct attack on older notions of private property. If the defendant's use of property is desirable because the public derives a benefit, then imposing the cost of such activity on the innocent plaintiff seems at best unfair, and at worst to be an uncompensated taking of private property for public use.

The balancing approach was taken by the court in *Sargent v. Ohio & Mississippi R.R.*[44] In refusing to enjoin construction of a street railway, the court quoted an early Kentucky case:

> [I]t must be an extreme and anomolous case, in which an improved mode of transportation, which not only facilitates passage, but promotes trade and commerce through a city, shall be deemed nevertheless a nuisance. It should never be so considered unless it unreasonably circumscribes the rightful use by others, who have an equal claim to the enjoyment of it.[45]

The individual's right to use the public street is outweighed not by the defendant's right to build a railway but rather by the public's right to improved transportation and commerce.

Added to this balance that weighs the social value of the defendant's use of property is a weighing of the social evil represented by the harm to the plaintiff. This is the import of the *de minimis* rule requiring the plaintiff to prove a real and substantial damage. It is not sufficient that the harm is significant to the plaintiff. It must also be a harm that the court deems worthy of a remedy.

The requirement that the plaintiff prove a real and substantial damage was first announced in a milldam case where an upper riparian owner complained of water backing up from the defendant's dam.[46] The essence of the complaint was that by raising the level of the stream the value of the plaintiff's riparian rights was diminished. Presumably the higher water level prevented

---

[42]5 Ohio 321 (1832).

[43]*Id.* at 322.

[44]12 Ohio Dec. Reprint 23 (Super. Ct. of Cincinnati 1854).

[45]*Id.* at 31, quoting Lexington & Ohio R.R. v. Applegate, 38 Ky. (8 Dana) 289, 302 (1839).

[46]Cooper v. Hall, 5 Ohio 321 (1832).

plaintiff from installing a water wheel of his own. The court held that the diminution in value of plaintiff's property did not constitute a real and substantial damage and was therefore not actionable. The effect of this holding is that a right having little pecuniary value is no right at all. This is contrary to the usual practice at common law of awarding nominal damages to vindicate rights where there is minimal pecuniary loss.

The severity of the *de minimis* rule is revealed by the decision of the Supreme Court of Ohio in *McCord v. Iker.*[47] The defendant's dam had caused a river to overflow its banks and flood the plaintiff's land. The plaintiff sought injunctive relief, which was denied on the ground that there was no showing of a real and substantial damage, because the flooded land was "low, swampy, wet prairie, of little or no value."[48] Though the land was worthless in the court's estimation, it must have had considerable value to the plaintiff. On seven previous occasions he had sued to recover damages from flooding caused by the defendant's dam. The defendant prevailed in five of those cases, and in the other two nominal damages were awarded. Presumably the plaintiff had expended considerable resources in litigating his rights in land purportedly "of little or no value." The nature of the harm was clearly continuing and the remedy at law clearly inadequate. Nevertheless, the Court concluded: "A court of equity would hardly be warranted in interfering to the destruction of a mill, in a case where the damages sustained by flowage were barely nominal, but would leave the parties to their remedies at law."[49] Thus, the court's conception of a legally protected property interest was shaped by its perception of what society deemed to be valuable, rather than by physicalistic notions about ownership of the land itself.

The imaginative thrust of judicial law-making in riparian and nuisance cases cadenced by mid-century. The reasonable use test and the intermediation of broad social values in private law controversies became crystallized in binding precedents. In subsequent decisions the Ohio courts elaborated the precepts established in the early cases.

II

The latter part of the nineteenth century was a period of transition in the history of the economic development of Ohio. By 1870, agricultural production was at the saturation point. There was little room for further expansion with contemporaneously available farming techniques. Indeed, the next two decades saw a decline in agricultural production. The manufacturing sector, by contrast, grew rapidly, increasing by nearly two-thirds in each decade until the

---

[47] 12 Ohio 388 (1843).

[48] *Id.* at 389.

[49] *Id.*

end of the century.[50] By 1880, Ohio was clearly established as a manufacturing state with farm production at less than one-half the value of goods manufactured.

This transition in the economic mode was matched by a concomitant transition in the life style of the people. Comparing the number of persons engaged in non-agricultural occupations with the number engaged in agricultural occupations as an indicator of life style, the point of inflection was in the early 1870s.[51] As was the case with agricultural production, the saturation point for number of persons engaged in agricultural occupations was reached during the 1870s. The number of persons engaged in non-agricultural occupations increased by about one-third in each decade until 1900.

While the value of manufacturing production and the number of persons engaged in non-agricultural occupations increased logarithmically, the overall increase in population was linear at the rate of approximately 430,000 per decade.[52] The rate of economic growth (indicated by value of manufacturing production) and the rate at which the nonagrarian population was increasing both exceeded the rate of increase of total population after 1860. It is a reasonable inference from these data that per capita wealth was increasing and that Ohio society was becoming increasingly urbanized.[53]

The increase in wealth was unevenly distributed causing sharp class distinctions. By far, the most powerful business interests in the state were railroads. In 1880, there were seventy-three railroad companies operating lines in Ohio. Nearly all were owned or controlled by "a few great lines."[54] The railroads had been subsidized by the state through government franchises. They came under political attack during the 1860s because of an inequitable tax structure, legal advantages given to railroads under charters, and other early railroad-protective legislation. In 1860, the State Railway Commission was created to instigate reforms. The scope of the problem is reflected in a quote attributed to the Commissioner in 1880: "Had they (the laws) been passed solely in the interest of the railway corporations, it is scarcely possible that they

---

[50]*See* Appendix, Chart One, showing decennial census figures for value of goods manufactured in Ohio from 1850 to 1900, compared with agricultural production from 1870 to 1900.

[51]*See* Appendix, Chart Two, showing decennial census figures for number of persons engaged in agricultural occupations compared with persons in non-agricultural occupations from 1840 to 1900.

[52]*See* Appendix, Chart Three, showing decennial census figures for population of Ohio from 1790 to 1900.

[53]One manifestation of this patter of economic and social change is the growth of urban centers. In 1840, Cincinnati was the largest city in the state with a population of more than 46,000. Next in size were Cleveland, Dayton and Columbus with only 6,000 each. By 1880, there were 15 cities with more than 10,000 persons. At that time, the population of Cincinnati was 160,000 and Cleveland was the great metropolis of the state with more than a quarter of a million inhabitants. 1 H. HOWE, HISTORICAL COLLECTIONS OF OHIO 44, 54 (1888).

[54]E. ROSEBOOM & F. WEISENBURGER, *supra* note 27, at 322. A few years later in 1877 the reported total of paid in capital stock in Ohio railroad companies was $512,344,549. Only $44,642,612 (less than nine per cent) was held by stockholders who were residents of Ohio. 1 H. HOWE, *supra* note 53, at 56.

could have been better constructed."[55] The Commission was ineffective because of the political power of the railroads and the prosecutor's complicity with them.

Another manifestation of popular antagonism to corporate power was the call for restrictions on corporations in the State Constitutional Convention of 1871. The corporate political establishment rallied to defeat the proposed constitution in 1874.[56] With the failure of reform efforts and the continuing polarization of class interests, Ohio, and the nation generally, reached a crisis in 1873 when the country was struck by a financial panic. Ohio was hard hit by the panic. Widespread unemployment and drastic wage-cuts were followed by bitter labor strikes in the coal mining and railroad industries.[57]

Conflict and tension characterized Ohio society throughout the remainder of the nineteenth century. On one side was the domination of government and politics by big business interests. On the other was a mix of labor activism, popular pressure for tax reform, antitrust agitation, the temperance movement, populism and nativism.

The political scene in Ohio during this period included big city bossism and corporate influence locally, and leadership in presidential and congressional politics nationally.[58] Big business alliances with party leadership have been documented for Republicans and Democrats alike.[59] Political opposition to the rule of big business appeared in three contexts. The first was antitrust legislation and litigation. Indeed, John Sherman, sponsor of the federal Antitrust Act of 1890,[60] was the senior senator from Ohio. In 1898, Ohio enacted a state antitrust law called the Vallentine Act.[61] This legislation followed the

---

[55]E. ROSEBOOM & F. WEISENBURGER, *supra* note 27, at 324-25.

[56]*Id.* at 334-36.

[57]F. WEISENBURGER, OHIO, A STUDENT'S GUIDE TO LOCALIZED HISTORY 19 (1965).

[58]The role of Ohio in national politics is highlighted by the fact that in all but two of the presidential elections from 1868 to 1900 the successful candidate was an Ohio native. The winners were: Ulysses S. Grant in 1868 and 1872; Rutherford B. Hayes in 1876; James A. Garfield in 1880; Benjamin Harrison in 1888; and William McKinley in 1896 and 1900. In the entire post-bellum period of the nineteenth century, only one man who was not from Ohio, Grover Cleveland, was able to win a presidential election, and in his first administration, 1885-1889, his Vice President was Thomas Hendricks, an Ohioan.

[59]On the Republican side: Governor Foster was a railroad speculator; Governor and United States Senator Foraker was a corporate lawyer who was on retainer from Standard Oil while serving in the Senate; and Marcus Hanna, a party wheel, was a Cleveland business man holding controlling interests in coal, iron and steel properties. It has been said of these Republicans that, "[t]hey built a party organization that extended its sway into almost every courthouse and city hall in Ohio." H. WARNER, PROGRESSIVISM IN OHIO, 1897-1917 5 (1964). The Democratic leadership included: John R. McLean, publisher of the *Cincinnati Enquirer* and developer of public utilities for the District of Columbia; Senator Henry B. Payne, known as the "Standrad Oil Senator;" Senator Calvin S. Brice, a public utility operator; and "Old Boy" Cox, long time boss of Cincinnati. Cox has been described as "a typical product of the unholy union of business and politics that long made American cities the worst governed in the world." E. ROSEBOOM & F. WEISENBURGER, *supra* note 27, at 358.

[60]15 U.S.C. §§ 1-2 (1976).

[61]93 OHIO LAWS 137 (1898).

famous prosecution of a common law antitrust action against Standard Oil.[62] The second opposition movement entailed agitation for tax reform, which led to the creation of the Ohio Tax Commission and the enactment of a state inheritance tax.[63] The third form of organized opposition to big business in politics was carried out by the Ohio chapters of the Populist and Free Silver political parties. Their attention was primarily focused on city bossism and corrupt local administration.

Ohio of the late nineteenth century was worlds away from the Ohio of the early period. There is, at least, symbolic significance in the fact that in 1898 many of the old canal reservoirs were converted to recreational facilities signaling the end of one era and the beginning of a new one.[64] The dramatic developments in Ohio during the latter part of the nineteenth century threatened the security of small property owners and increased the direct role of government in the management of property and property relations. As a result, three classes of nuisance cases were brought to the courts: (1) actions by individual small property owners against corporations; (2) similar actions against municipalities; and (3) public nuisance prosecutions brought by the State in the interest of the general public.

Until about 1880 the complainants continued to manifest resistance to change as was characteristic of the early period. By the end of the century, however, the plaintiffs seem more interested in obtaining a fair share of the benefits of the booming new industrial society. While there were still cases of homeowners resisting the discomforts of new industrial activities in the neighborhood, there were many cases where the plaintiff may well have been attracted to the place because of the benefits of the very activity forming the basis of the complaint. There was an attitude on the part of the small property owner that there is a right to a peaceful home environment even if the factory is the source of livelihood for the community. The result, in terms of the development of nuisance doctrine, was a refinement of the principles relied on during the early period rather than introduction of new principles. There was a shift, however, in the form of expression of the public interest from a blanket assertion of the public benefits of economic development, toward a reliance on a generalized notion of community standards for the determination of nuisance claims.

The community standards rationale appeared in the "ordinary tastes and susceptibilities" formula used to determine whether there was a "real and substantial" damage. The adjustment of social values undertaken under the

---

[62]State v. Standard Oil, 49 Ohio St. 137 (1892).

[63]91 OHIO LAWS 166 (1894). The inheritance tax was held to be in conflict with the Ohio State Constitution and the equal protection clause of the fourteenth amendment to the United States Constitution. State v. Ferris, 53 Ohio St. 314 (1895).

[64]E. ROSEBOOM & F. WEISENBURGER, *supra* note 27, at 326-27.

rubrics of "public benefit" and *"de minimis* damages" was crystallized in the form of a "balancing the equities" test. Reasonable use was refined by the introduction of a concept of unreasonable use, or, nuisance *per se.* The introduction of this concept created a large middle ground where negligence analysis was applied. Common industrial practices and a private law forerunner of zoning called "vicinage" became standards upon which injunctive relief was denied. Finally, judicial construction of statutes determined the outcome of public nuisance prosecutions.

A standard implemented to determine whether the harm to the plaintiff reached the level of a "real and substantial damage" was the "ordinary tastes and susceptibilities" formula first articulated in *Columbus Gas Light & Coke Co. v. Freeland.*[65] Freeland complained of noxious odors, poisonous gasses and pollution of his well caused by dumping from the defendant's plant next to his home. He sued for damages and won a jury verdict. On appeal judgment was reversed on the grounds that the jury might have interpreted the charge as meaning they should find liability if Freeland was actually annoyed by the defendant's use of property. This was found to be prejudicial error because, according to the Court, the correct standard to be applied was whether the defendant's use of property would be offensive to a person of ordinary tastes and susceptibilities.

The Court's analysis of nuisance was based on the opinion of Justice Livingston in the early New York case of *Palmer v. Mulligan.*[66] Justice Livingston stated:

> [T]o secure to individuals the free and undisturbed enjoyment of their property, as to the public benefits which must frequently redound to it from such uses, the operation of the maxim *sic utere tuo ut alienum non laedus,* should be limited to such cases only where a manifest and serious damage is the result of such use or enjoyment, and where it is very clear indeed that the party had no right to use it in that way. Hence it becomes impossible (sic), and, indeed, improper, to attempt to define every case which may occur of this kind. Each must depend upon its own circumstances; and the fewer precedents of this kind which are set, the better. . . .[67]

In this excerpt, the concepts of public benefit and reasonable use are at the core of the issue of liability in nuisance. The emphasis is placed on public rights and rights of the defendant, rather than on the harm to the plaintiff. As a result, the court reaches the conclusion that in order to find a "manifest and serious damage" the jury should not look at the circumstances as they affect the plaintiff; rather, the measure should be the impact of such circumstances

[65] 12 Ohio St. 392 (1861).

[66] 3 Cai. R. 308, 312 (N.Y. Sup. Ct. 1803) (opinion of Livingston, J.).

[67] *Id.* at 313 (quoted by Columbia Gas Light & Coke Co. v. Freeland, 12 Ohio St. at 398).

on a person of ordinary tastes and susceptibilities.[68] A general, community-defined standard was thus imposed on the individual seeking to enjoy private property free of interference from neighbors.

Even when this variant on a "reasonable person" standard was met, relief might nevertheless be denied by a balancing of the equities. In applying the test the court hears evidence of the hardship that may be suffered by the defendant or others as a consequence of an injunction. This evidence is then weighed against the harm suffered by the plaintiff as a consequence of the nuisance.[69] Items considered were the value of the factory and the number of persons employed there. The bias of this test in favor of big business is obvious: whenever the defendant's capital investment is large, the hardship occasioned by an injunction will be great. The balancing the equities test is a crystallization into a formal procedure of the *ad hoc* adjustment of social values in the earlier public benefit and *de minimis* damage cases.

The early reasonable use doctrine was developed in the subsequent period with the introduction of a category of nuisances *per se* — i.e. those activities that were deemed to be unreasonable uses of property such as blasting with explosives.[70] The Supreme Court of Ohio held that because the use of explosives is an inherently dangerous activity, absolute liability should be imposed for harm to neighbors resulting therefrom.[71] The determination that inherently dangerous uses of property are unreasonable sets up a presumption that all other uses are not unreasonable — that they are not nuisances *per se.*

A judicial declaration that a use of property was reasonable constituted a defense. If the use was inherently dangerous, absolute liability was imposed. If the use was neither reasonable nor unreasonable, the activity was classified as not a nuisance *per se,* but if conducted negligently a cause of action for nuisance would accrue.[72] The legal significance of this determination is illustrated by the following hypothetical situation: H is a homeowner, B is a blacksmith. B plans to open a shop next door to H. H petitions a court of equity for an injunction because B's shop will be a fire hazard and will produce noises and smoke that will materially interfere with H's enjoyment of property.

---

[68]In formulating the rule the Court stated:

> Regard should be had to the notions of comfort and convenience *entertained by persons generally,* of ordinary tastes and susceptibilities. What such person would not regard as inconvenience materially interfering with their physical comfort, may be properly attributed, when alleged to be a nuisance, to the fancy, or fastidious taste, of the party. On the other hand, the charge of a nuisance, if it be of a thing *offensive to persons generally,* can not be escaped by showing that to some persons it is not at all unpleasant or disagreeable.

12 Ohio St. at 399 (emphasis added).

[69]*See, e.g.,* Eller v. Koehler, 68 Ohio St. 51, 67 N.E. 89 (1903).

[70]Tiffin v. McCormack, 34 Ohio St. 638 (1878).

[71]*Id.* Note that in blasting cases a cause of action in trespass would not lie when the damage was caused by concussion, but an action in nuisance could still be maintained. *See* the discussion in Louden v. Cincinnati, 90 Ohio St. 144 (1914).

[72]Ett v. Snyder, 5 Ohio Dec. Reprint 523 (C.P. Pickaway 1877).

Despite the provable risks associated with B's use of property, it is doubtful that blacksmithing would be classified as a nuisance *per se.*[73] Hence, the injunction is denied. If after six months H's home is burned to the ground by a fire originating in B's shop, H must first prove B's negligence in an action at law, and if successful, attempt to recover his judgment. The judicial determination that blacksmithing is not unreasonable forecloses H's preventive remedy, and any chance of ultimately recovering compensation is subject to the contingencies of civil litigation.

In the case of activities that are not nuisances *per se* the nuisance standard (use your own so as not to harm others) is replaced by a negligence standard (use your own, blacksmith, as reasonable, prudent blacksmiths use theirs). The legal issue has evolved from a question of whether the plaintiff has suffered a real and substantial injury as the result of the defendant's use of property, to a standard of care imposed on the defendant based on what a reasonable person would do in the same circumstances. The net result is the removal from nuisance of a large class of cases of conflicting uses of property, and placing it in the area of negligence. Absolute liability is replaced by a less stringent duty to exercise reasonable care. This doctrinal development is a stage in the shift from the conception of property as the right to enjoy the use of a physical thing, to the idea that property rights are interests that receive legal protection because they are deemed to be socially valuable.

In the late nineteenth century, though the proposition was not uniformly accepted,[74] many courts were willing to accept freedom from negligence as a defense to an action for nuisance.[75] Negligence in the context of nuisance refers to the question of whether the activity complained of was conducted in a careful manner. In other words, there must first be the assumption that, if conducted carefully, the activity would not be annoying. Given this assumption, there is no problem in using a negligence standard of care to define the limits of permissible conduct in any particular endeavor. This treatment of nuisance, however, is inadequate to deal with the underlying problem of spillover effects[76] from conflicting uses of property because the primary element of negligence, the duty owed to the plaintiff, is assumed rather than proved. Indeed, if nuisance were to be translated into tort terms, nearly all cases would involve intentional, or at least willful conduct on the part of the defendant, rather than negligent behavior. Undoubtedly, the owner of a steam engine is

---

[73]The operation of coke ovens, certainly a far more noxious activity than blacksmithing, was found by a New York court not to be a nuisance *per se.* Bove v. Donner-Hanna Coke Corp., 236 A.D. 37, 258 N.Y.S. 229 (1932).

[74]*See, e.g.*, Barkau v. Knecht, 9 Ohio Dec. Reprint 66 (C.P. Hamilton 1883).

[75]*See, e.g.* Crawford v. Rambo, 44 Ohio St. 279, 7 N.E. 429 (1886); Columbus & Hocking Coal & Iron Co. v. Tucker, 48 Ohio St. 41, 26 N.E. 630 (1891).

[76]*See generally* Freeman, *Give and Take: Distributing Local Environmental Control Through Land-Use Regulation,* 60 MINN. L. REV. 883, 887-92 (1976).

aware that the engine makes noise, the fires used to heat the water produce smoke, and neighbors will consequently be disturbed. Asking whether the steam engine was run in a careful and reasonable manner evades the issue at the center of all nuisance claims: does the defendant's use of property infringe the plaintiff's property rights? For this reason nuisance was never completely absorbed by negligence theories of liability even though there was a tendency on the part of some courts to analyze nuisance in negligence terms at the end of the nineteenth century.

Related to the negligence-like standards of liability was consideration of common industrial practices in determining whether equitable relief should be granted. In *Goodall v. Crofton*[77] the plaintiff sought an injunction restraining the use of stone cutting machinery in a manner that caused physical damage to property and discomfort to tenants in the plaintiff's adjoining building. In refusing to grant the injunction the court reasoned: "we can not shut our eyes to the obvious truth that if the running of defendant's engine and machinery, in the manner it appears to have been carried on, can be enjoined, almost any manufactory in any of our towns and cities may be enjoined upon similar reasons."[78] The court's position is clear. The standard to be applied is found by looking at common industrial practice. There is no attempt to use the law to establish standards for industrial practices. That task is left to the industries themselves, and the rule of conduct they decide upon is given the sanction of law.

The effect is to impose on the public a standard developed by industrial interests. The implication of the quoted passage is that enjoining factory operations is adverse to the public interest, but unlike the judicial declarations of the early period, the tone of this statement is one of resignation. This is a legal reflection of the utter powerlessness of individuals in the face of burgeoning industry and the consolidation of corporate power.

Another defense was a private law forerunner of zoning called "vicinage." Simply stated, vicinage as a defense is an assertion that the neighborhood is appropriate for the particular use of property involved.[79] Inherent in this principle is the idea that annoyances common to an industrial district must be tolerated, and by locating in such a district an industry is relieved of liability for disturbances that are the normal consequence of industrial enterprise. The application of the vicinage doctrine should have the same result as a comprehensive zoning plan:[80] annoying activities may be lawfully conducted in some geographic areas, but not in others that remain comfortable residential neighborhoods. There is, however, an important difference between land use reg-

[77] 33 Ohio St. 271 (1877).

[78] *Id.* at 277.

[79] *See, e.g.*, Neuhs v. Grasselli Chemical Co., 8 Ohio Dec. 203 (C.P. Cuyahoga 1898).

[80] *See* Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926).

ulation through zoning and judicial application of the vicinage doctrine. Under a zoning plan the community speaks through its lawful representatives and prescribes with certainty and clarity those activites which are restricted to limited places. Vicinage is merely one of many exemptions and justifications insulating industrial interests from liability after the harm has already been done.

Though zoning was an innovation that was not introduced until the beginning of the twentieth century, there were attempts at legislative intervention and regulation through statutes declaring noxious activities to be public nuisances. Among the many public nuisance statutes enacted by the Ohio legislature during the nineteenth century was a codification of the common law of public nuisances with the addition of a criminal penalty of a fine of five hundred dollars for each offense.[81] This statute was narrowly construed by the courts. In *State v. Cincinnati Fertilizer Co.*,[82] a prosecution for the emission of noisome odors from the defendant's plant, the charges were dismissed on the grounds that a corporation was not a "person" within the meaning of the statute. This construction of the statute seems excessively restrictive in light of the then well established principle that artificial persons like corporations could be held criminally liable.[83]

The first report of successful litigation of a public nuisance claim appeared in 1864.[84] The case was brought by the City of Toledo's assignee to recover the expense of draining stagnant water from the defendant's property pursuant to an order of the city commissioners. The authority of the city to order such draining to abate a public nuisance was upheld, but the court was careful to avoid holding that the city had authority to declare the existence of a nuisance. The significance of reserving the determination of the existence of a nuisance to the judiciary severely limited the scope of legislative power to deal with environmental problems.

Three cases tested the validity of ordinances designed to regulate smoke emissions in densely populated areas.[85] These cases typify the antagonism between judicial and legislative attitudes toward public law attempts to prevent nuisances. In the earliest of these cases,[86] the defendant's demurrer was overruled, but the police court magistrate did express "doubts as to whether or not

[81]54 OHIO LAWS 130 (1857) provided for abatement and a fine of up to $500 to be levied on any person guilty of causing noxious exhalations, noisome or offensive smells, anything injurious and dangerous to health, comfort or property of individuals or the public, causing offal, filth, impeding navigation, polluting water, diverting to the injury or prejudice of others, or obstructing a public highway.

[82]24 Ohio St. 611 (1874).

[83]United States v. Amedy, 24 U.S. (11 Wheat.) 392 (1826).

[84]Bliss v. Kraus, 16 Ohio St. 55 (1864).

[85]Cleveland v. Malm, 7 Ohio Dec. 124 (Police Ct. 1898); Sigler v. Cleveland, 4 Ohio Dec. 166 (C.P. Cuyahoga 1896); Cincinnati v. Miller, 11 Ohio Dec. Reprint 788 (Police Ct. 1893). "Dense smoke" ordinances were enacted pursuant to 88 OHIO LAWS 53 (1891) which declared dense smoke to be a nuisance in cities with 31,500 or more population.

[86]Cincinnati v. Miller, 11 Ohio Dec. Reprint 788 (Police Ct. 1893).

a court is justified in assuming 'dense smoke' to be a nuisance without proof that it is attended with injury to property and annoyance to the people. . . ."[87] The court based its decision to overrule the demurrer on an Illinois authority declaring dense smoke to be a nuisance *per se.*[88]

Three years later a Cleveland court took a different view of the problem.[89] The court's construction of the ordinance was that the word "dense" was indefinite and not a limitation on the word "smoke," and therefore, the ordinance outlawed all smoke emissions whatever and was unconstitutionally overbroad. This reasoning was followed in *Cleveland v. Malm,*[90] where the ordinance was held void because: it was indefinite, uncertain, and vague; it was beyond the power of the city council to declare smoke to be a nuisance *per se;* and it was beyond the city's authority to prohibit smoke emissions at any and all times, though it did have the power to regulate the amount of smoke released into the atmosphere.

The *Malm* court expressed sensitivity to the problems of air pollution, but insisted on strict constitutional scrutiny of legislation attempting to deal with the problem. The court stated:

> The City of Cleveland is now the metropolis of Ohio, having a population of nearly 400,000 inhabitants. It has become so prosperous and so populous by reason of its diversified manufacturing interests, and no doubt in the districts containing most of our manufacturing establishments there is a vast emission of smoke emitted by the burning of vast quantities of coal consumed in the furnaces of the various manufactories. And the Court has no doubt in the least that the emission of this smoke is injurious and annoying to the health and comfort of the people living in those districts and elsewhere. I have furthermore no doubt that it is damaging to the property both real and personal, of the same individuals and to the goods, wares and merchandise of a great many merchants; but in order that those individuals may be free, to a certain extent, from this injnry (sic), annoyance or damage, the council must pass an ordinance which will stand the test and not be open to the objections cited. . . .[91]

Another Cleveland court,[92] just two years later, discussed in dicta a different kind of nuisance with no similar reservations about vagueness and protecting defendants' rights. That court stated:

> [T]here can be little doubt, as we conceive, that obscene books or pictures, or implements only capable of an illegal use, may be destroyed as part of

---

[87] *Id.* at 789-90.

[88] Harmon v. Chicago, 110 Ill. 400 (1884).

[89] Sigler v. Cleveland, 4 Ohio Dec. 166 (C.P. Cuyahoga 1896).

[90] 7 Ohio Dec. 124 (Police Ct. 1898).

[91] *Id.* at 128.

[92] Deming v. Cleveland, 22 Ohio C.C. 1 (1901) *aff'd* 83 Ohio St. 446, 94 N.E. 1108 (1910).

Akron Law Review, Vol. 18 [1985], Iss. 2, Art. 4

the process of abating the nuisance they create, if so directed by statute. The keeping of a bawdy house, or a house for the resort of lewd and dissolute people is a nuisance. . . .[93]

The apparent double standard for scrutinizing public nuisance statutes supports the hypothesis that the legalistic objections to the dense smoke ordinance were not based on some pristine notion of precision in the law, but rather, reflected a fundamental objection to the policies behind it, despite the rhetoric to the contrary. Whatever their motivation may have been, the historical record is quite clear that courts rather than legislatures retained control over environmental regulation until the end of the nineteenth century, and they were either unwilling or unable to reverse the permissive policies underlying the doctrines laid down in the early cases.

III

The Ohio decisions in the fields of riparian and nuisance law tend to confirm the conclusions of Professor Horwitz' earlier work.[94] Horwitz argues that the pattern of legal development in the antebellum period was made possible by the "emergence of an instrumental conception of law"[95] at the end of the eighteenth century. He explains: "As judges began to conceive of common law adjudication as a process of making and not merely discovering legal rules, they were led to frame general doctrines based on a self-conscious consideration of social and economic policies."[96] Moreover, he found: "In a whole variety of areas of law, ancient rules are reconsidered from a functional or purposive perspective, often before new or special economic or technological pressure for change has emerged."[97] On the basis of that finding Professor Horwitz concludes: "In short, an instrumental perspective on law did not simply emerge as a response to new economic forces in the nineteenth century. Rather, judges began to use law in order to encourage social change even in areas where they had previously refrained from doing so."[98] He endeavors to explain these developments in terms of a "breakdown of the eighteenth century conception of law,"[99] and a "reaction against form [that] was part of a deeper change in thought."[100] This explanation is at best incomplete.

---

[93] *Id.* at 9.

[94] As the spirit of economic development began to take hold of American society in the nineteenth century . . . the idea of property underwent a fundamental transformation — from a static agrarian conception entitling an owner to undisturbed enjoyment, to a dynamic, instrumental, and more abstract view of property that emphasized the newly paramount virtues of productive use and development. By the time of the Civil War, the basic change in legal conceptions about property was completed. M. HORWITZ, *supra* note 6, at 31.

[95] *Id.* at 1-30.

[96] *Id.* at 2.

[97] *Id.* at 3.

[98] *Id.* at 4.

[99] *Id.* at 9-16.

[100] *Id.* at 29.

Professor Horwitz significantly points out: "The problem of fitting the common law into an emerging system of popular sovereignty became the central task of judges and jurists at the turn of the century."[101] The questions he fails to adequately address are: why was the common law made to "fit" popular sovereignty at all? And why did judges and jurists ascend to a dominant position of leadership? These questions are aspects of the more general inquiry: why did liberalism develop such a radically different legal form in the United States than in Europe? An answer to these questions involves the form in which democratic ideals are expressed in the Declaration of Independence and the federal and state constitutions.[102]

According to the Ohio Constitution private property pre-exists governmental power. State power may be exercised for limited purposes only. Consequently, allocation of economic resources through political processes was inherently controversial. While the legislature could deliberate upon matters of economic policy, and even arrive at consensus as to the best allocation of resources, the legislature in its collective voice could not speak for the interests of property. Such interests were represented by elected spokesmen, but the individual voices coalesced through the process of political deliberation into an articulation of public rather than private interest.[103] Private property was conceived as an unalienable right of the individual, and was thought to be the most important protection of minorities against the will of the majority expressed in legislation. Thus, there was a sharp distinction drawn between public law and private law. To be sure, the legislatures did formulate and execute economic policy, but they were constrained to do so without injuring individuals. The legislature was not empowered to take from A and give to B.

There were, nevertheless, two important areas in which legislatures actively promoted economic development. One was the use of the state franchise.[104] By legislative charter private investors were allowed to organize as a corporation for a specified purpose. The franchise was a way of delegating state power to make public improvements to private investors, who in return received the profits of the enterprise. Through the mechanism of the chartered franchise, the state was giving to B but was not "taking" anything from A.

The second area of legislative activism was in facilitating commerce through improvements in transportation. State appropriation of private property for construction of roads, canals and railroads was extensive. Sometimes these were state run projects, but more commonly the land taken by exercise of the eminent domain power was granted to franchised enterprises who carried out the construction and operation of the public works projects. In con-

---

[101] *Id.* at 20.

[102] *See* note 23, *supra.*

[103] *See* THE FEDERALIST NO. 10 (J. Madison).

[104] *See* notes 38-41 *supra* and *accompanying text.*

fiscating land for the development of improved transportation facilities, the state is clearly taking from A, but it is not giving anything to B. The improved facilities were available to all to use on an equal basis.[105] There was no favoritism of one individual over another.

The political ideology embodied in the Ohio Bill of Rights foreclosed the legislature from allocating resources among individuals. Public regulation of the use of property in such a way that one individual is benefitted and the other burdened was inherently suspect. Any legislatively declared standard for the adjustment of disputes arising from conflicting uses of property would be attended by controversy of constitutional dimensions. Hence, the legislature was seriously restricted with regard to the means that might be employed to effectuate economic policy.

The way in which property is used necessarily affects other property. As the nuisance cases make abundantly clear, conflicts between adjoining property owners are inevitable. Disputes were brought to the courts, and the judiciary, through private law adjudication of these disputes, became the leading state instrumentality for formulating, articulating, and executing public policy regarding resource allocation. Legal argument took the place of political deliberation. Through the development of ostensibly neutral legal rules the judiciary established and elaborated a comprehensive scheme for regulating the economy.

The history of a commercial and industrial development project near Dayton illustrates the controversial nature of legislative and administrative intervention in the economy of early Ohio.[106] This case history demonstrates the high stakes that were involved in such controversies, and reveals some of the more pernicious consequences of government by judiciary.

The story begins with passage of Ohio's Canal Act of 1825[107] after seven years of politicking, publicizing, surveying and debate.[108] The Act provided for construction of two canals: one, the Ohio & Erie, would run from Cleveland to Portsmouth; the other, the Miami, would run from Cincinnati to Dayton. The Act also provided for raising certain taxes, establishing a Canal Fund, and issuing Canal Bonds to be sold in eastern money markets. A canal Commission was to be created that would be authorized to award contracts, disburse state funds, establish regulations governing the work, and exercise the state's eminent domain power to take the necessary land and materials such as lumber, gravel and stone. Subsequent legislation empowered the Canal Commission to

[105]In the language of the fifth amendment of the United States Constitution, the land was taken for a "public use."

[106]Except as otherwise noted the following discussion relies on the published syllabae and reported decisions in *Cooper v. Williams* and related litigation. *See* Cooper v. Williams, 4 Ohio 253, *aff'd* 5 Ohio 391 (1832); *see also* Seely v. State, 11 Ohio 502 (1842), final judgment rendered, 12 Ohio 496 (1843).

[107]23 OHIO LAWS 50 (1825).

[108]*See* Scheiber, *The Ohio Canal Movement, 1820-1825*, 69 OHIO HIST. Q. 231 (1960).

buy and sell land, to locate mill sites and lease the water power created by the canal works, and engage in all sorts of transactions to raise revenues for the Fund.[109]

One such transaction involved a promoter by the name of Morris Seely. In January 1829, Seely submitted a proposal to Micajah T. Williams, the Supervising Canal Commissioner.[110] The proposal was an offer to sell a few acres of land to the state for a short canal and basin in exchange for a lease of the excess water from a canal feeder. The water was to be used for hydrualic power to drive mills. Williams accepted the proposal and obtained the approval of the governor as was required by the enabling legislation. Seely, acting in reliance on the approval of his proposal, then purchased a large tract of land in the immediate vicinity. He contracted for and began construction of the canal and basin, and began laying out streets and building bridges over the canal. As was typical in the capital scarce West, the project was financed with long extensions of credit and little cash.

In November 1829 Seely's canal and basin were very near completion and the Canal Commission publicly announced the sale of the water power. Upon hearing of this announcement D.C. and D.Z. Cooper brought suit to enjoin the proposed sale of water power. They claimed prior right to the water, alleging that it was the same water that had been confiscated by the Canal Commission ostensibly for Canal purposes. They alleged further that they were irreparably injured by the diversion of water from their own millworks to Seely's project. They argued that the diversion of water constituted an unconstitutional taking of their private property for the private use of Morris Seely. What ensued was fourteen years of litigation involving large sums of money, considerable waste and losses suffered by many individuals.

The sale of water was enjoined by the trial court, which was later reversed by the Ohio Supreme Court. The Supreme Court held that there could be no vested right in the water in the canal that is paramount to the discretion of the commissioners. The Coopers had been fully compensated for any riparian rights previously appropriated by the state, and the use of hydraulic power derived from the canal was only an accidental benefit, too indefinite and uncertain to constitute an established right. The Court added: "we can not regard, as an abuse of power, an attempt to diminish the pecuniary burdens of the people, by means, which, in our opinion, are no violation of any vested right."[111]

The distinction between accidental benefits (water power) and general benefits (navigation) was drawn by the court in order to reconcile its decision

---

[109]OHIO LAWS, Act of Feb. 7 1826, Act of Feb. 16, 1829.

[110]Prof. Scheiber has published a biographical essay on the life of Micajah T. Williams. Scheiber, *Entrepreneurship and Western Development: The Case of Micajah T. Williams,* 37 BUS. HIST. REV. 345 (1963).

[111]Cooper v. Williams 4 Ohio 253, 288 (1831).

with the Coopers' argument that appropriation of private property must be necessitated by some public use.[112] The accidental benefits of hydraulic power were not public, but the complainants had no greater claim to those benefits than anyone else. In effect, the state power issue was avoided by denying the existence of any conflicting private right. In essence, the court held that the plaintiff had no standing to challenge the sale of water power.

One member of the four justice panel broke with the custom of the day by filing a dissenting opinion. Justice Brush stated:

> The discretion of all public agents, especially in the assumption of private property for public use, must be brought to the test of legal judgment. It must be controlled by some limit, and subjected to some rule. The application of that rule belongs to the judicial tribunals. They settle the bounds of official discretion, which has a continual tendency to encroach upon private rights. It is their province to arrest the exercise of that discretion, when it oversteps the requisitions necessary for the *"public welfare."* If any given quantity of water can be taken from the feeder, and returned to the canal, without injury to the navigation, the only legitimate object of state appropriation, I conceive it should be left with the original owners, whose right is the oldest, the best, and ought to be exclusively enjoyed.[113]

The cause came on for re-argument the next term and the Ohio Supreme Court affirmed its earlier decision. Final judgment was entered in December of 1832. While the litigation was still pending in the Supreme Court, Commissioner Williams made alternative arrangements for sale of the water power to the Coopers. Seely was forced to abandon the project and went bankrupt. Several thousands of dollars of debts to contractors in Seely's employ were discharged in insolvency proceedings. The basin, which never was put into use, became an open stinking pool of stagnant water that remained a public

---

[112]By the late nineteenth century courts were willing to defer to the legislative judgment of what constituted a public use "unless the use be palpably without reasonable foundation." United States v. Gettysburg Electric R.R. Co., 160 U.S. 668, 680 (1895). Recently, the Supreme Court held that the "public use" requirement of the fifth amendment "takings clause" was "coterminous with the scope of a sovereign's police powers." Hawaii Housing Authority v. Midkiff, 52 U.S.L.W. 4673, 4676 (1984). This means that if the state has an arguably rational reason for taking private property from A and giving it to B, then such taking is lawful so long as it is justly compensated. The Court stated:

> When the legislature's purpose is legitimate and its means are not irrational, our cases make clear that empirical debates over the wisdom of takings — no less than debates over the wisdom of other kinds of socioeconomic legislation — are not to be carried out in the federal courts. Redistribution of fees simple to correct deficiencies in the market determined by the state legislature to be attributable to land oligopoly is a rational exercise of the eminent domain power.

Id. It should be noted that since the public use requirement in this instance is met by the rational purpose of preventing the evils of oligopoly, it follows as a matter of logical necessity that the measure of just compensation will be lower than prevailing market prices because "[t]he legislature concluded that concentrated land ownership was responsible for skewing the State's residential fee simple market, inflating land prices, and injuring the public tranquility and welfare." *Id.* at 4674. In other words, not only can property be taken so long as the purpose is not irrational, but in addition, compensation can be set according to some abstract standard unrelated to actual market conditions.

[113]4 Ohio at 293-94 (Brush, J. dissenting), (emphasis in original).

nuisance for many years. In 1834 Morris Seely was elected to the state legislature where he pressed his claim for restitution before his colleagues. The legislature awarded him $5,000 and enacted special jurisdictional legislation giving him an action to recover damages on his "quasi-contract" with the state. Seely's litigation with the state continued until 1843. He eventually recovered nearly $40,000.

The litigation surrounding the Seely speculation involved powerful and adventurous men with visions of glory as well as gain. Micajah Terrell Williams' career as promotor-politician-entrepreneur extraordinaire spanned a quarter of a century.[114] He was a journalist and legislator before becoming canal commissioner. He was a leader of the Jackson Party in Cincinnati and was appointed Surveyor General of the Northwest Territory when Andrew Jackson was elected to the Presidency. In that capacity he gained information that he later used in speculations in townsite lots in what later became Milwaukee as well as copper mines in Michigan. He was the organizer and first president of the Ohio Life Insurance & Trust Co. which was one of the leading western banks for many years.

Though he never achieved the prominence enjoyed by M.T. Williams, Morris Seely appears to have been a man of like temperament. He moved easily in and out of public service, making contracts, speculating with other people's money, and serving the public interest as well as his own.

The Coopers occupied a somewhat different position. They were the two sons and sole heirs of Daniel C. Cooper who led a survey expedition and marked out the first road to the future site of Dayton in 1795.[115] When Cooper's employers, the promoters of the Dayton settlement project, withdrew due to financing difficulties, Cooper picked up options on large tracts of land in and around the town of Dayton. He built the first mills in Dayton in 1799, served as Justice of the Peace (1799-1803), President of the Select Council (1810-1812), and seven terms in the state legislature before his death in 1818. In all his sales of land lots he reserved the water rights to himself and his heirs. On his death those rights, which later became the subject of the litigation discussed above, passed to his sons, D.C. and D.Z. Cooper. Thus, the plaintiffs in *Cooper v. Williams* had inherited a position of great wealth and influence in Dayton. They represented the "older" established interests in that town, barely a generation old when the controversy began.[116]

---

[114]*See* note 110, *supra.*

[115]*See* 2 H. HOWE, HISTORICAL COLLECTIONS OF OHIO 53 (1891).

[116]At least a portion of the Coopers' millworks were sold in 1832 and returned to profitability under new management. United States Treasury Dept., *Documents Relative to the Manufactures in the United States, Collected and Transmitted to the House of Representatives, in Compliance with a Resolution of January 19, 1832, by the Secretary of the Treasury* 867-68 (1832). Both sons of Daniel C. Cooper apparently died without heirs before the publication of the first edition of Howe's *Historical Collections of Ohio* in 1854. *See* 2 H. Howe, Historical Collections of Ohio 281 (1896).

The point of historical interest in the story of Seely's unsuccessful project is not any rule of law that the courts announced. Rather, the case exemplifies the intense conflicts that occurred between powerful interests. The interposition of official action in the fray rendered the issues highly controversial. The public law doctrines relied on by the courts to resolve the conflicts probably resulted in more harm than good.

Situations involving conflicting uses of property rights were more effectively dealt with in the private law context where they were attended by less controversy. In theory the courts were only finding the pre-existing common law of the case, even though by this time it was well recognized that in practice common law adjudication entailed judicial law-*making*.[117] In the process courts articulated and effectuated public policy, but their decisions were justified on grounds of fairness and justice rather than the prerogatives or imperatives of state power. The common law methodology of private law adjudication, "legal reasoning," became the justifying bulwark of a judiciary state that elaborated a doctrine articulating the legal form of liberalism in the United States.

IV

There remains to be considered one additional class of decisions in nuisance cases. These involve situations in which courts grappled with the problem of cases where the routine application of accepted doctrine leads to manifestly unreasonable and unjust results. In a few exceptional cases courts attempted to develop rules that would regulate the conduct of property owners with the end in view of protecting the environment and the interests of the innocent by-standers who had been forced by the earlier decisons to absorb the costs of industrial expansion. The significance of these exceptional cases lies neither in the rules they engendered, nor even in the attempts that they represent. Rather, they are important precisely because of their failure to turn the tide of common law development in response to changed conditions.[118]

Most notable among the exceptional cases is *McClung v. North Bend Coal & Coke Co.*[119] The case involved not merely a complaint of a homeowner

[117]Similarly, today we retain the *theoretical* distinction between law and politics even though it is commonly believed that as a *practical* matter court decisions are affected by political factors, such as the personal political preferences of the personnel on the bench.

[118]The much heralded flexibility of the common law, and the ability to adapt it readily to changed conditions, is an illusion. The evolution of legal rules over time gives the appearance of law changing in response to be changed circumstances, but all the while, with each altered interpretation, and each new exception, the law surreptitiously reasserts itself as an uncompromised and uncompromising form. If the form of law is reduced to a matter of contingency, it becomes formlessness, and it ceases to be law at all. For further discussion see Lichterman, *Social Movements and Legal Elites: Some Notes from the Margin on The Politics of Law, A Progressive Critique*, 1984 Wisc. L. Rev. 1035.

[119]1 Ohio Dec. 187 (C.P. Hamilton 1892), *aff'd* 9 Ohio C.C. 259 (1895). Two groups of exceptional cases are also worthy of mention. One group consists of cases seeking abatement of "spite fences." *See:* Peck v. Bowman, 10 Ohio Dec. Reprint 567 (C.P. Cuyahoga 1889); Kessler v. Letts, 7 Ohio C.C. 108 (1892); and Dawson v. Kemper, 1 Ohio Dec. 330 (C.P. Hamilton 1894). In all three cases plaintiffs complained of fences built so near the property line and so high that light and air was blocked from the windows of the building on

against an industrial entrepreneur, but rather, a clash between burgeoning industry on one side, and on the other, one of the oldest and politically most powerful families in Ohio. Unlike the cases where relatively helpless complainants were confronted by all the legal resources capital could muster, the plaintiff was a decendent of the Harrison family which included two presidents of the United States and a signer of the Declaration of Independence. The property involved was the ancestral estate of President William Henry Harrison.

The complaint alleged injury to health and damage to real property caused by defendant's coking operations. The court made explicit findings of fact that more than two hundred evergreen trees had been killed by soot from the coke ovens, and the health of members of the plaintiff's family had been materially impaired by the poisonous gasses carried by prevailing winds across the plaintiff's property. The court heard scientific testimony on the experience of Connellsville, Pennsylvania, where the landscape was completely destroyed by the coking operations carried on in that region. This evidence demonstrated the grievous nature of the harm being done.

Evidence of the public benefits of coking and the hardships the defendant would endure as a result of an injunction was also admitted. However, the elements of violation of a clear right, and grievous and continuous harm requiring a multiplicity of law suits to enforce rights were found, and they were held to justify equitable relief despite whatever hardships might follow as a consequence of the injunction. In delivering its order, the court suggested that entrepreneurs in the coke business should buy as much land as they will destroy by their operations or else locate in a place like Connellsville where there was nothing left to destroy.

McClung is an outstanding example of nuisance doctrine being employed to check the destructive tendencies of unregulated industrial expansion. Its

---

the adjoining property. In *Peck* and *Kessler* it was proved that the fences were erected because of malicious motives. The courts ordered abatement basing their decisions on the "demands of equitable justice." A reluctant dissenting judge in *Kessler* would have held for the defendant because no clear right had been violated. He pointed out that the plaintiff risked this annoyance by building too close to the property line. *Dawson* followed the reasoning of the Kessler dissent. No other "spite fence" cases were reported during the nineteenth century. The "spite fence" cases were an attempt to carve out an exception to the general rules of nuisance in those cases where the annoying use of property is willfully malicious and serves no desirable social purpose.

The other notable exceptional cases involved the Ohio courts' flirtation with the rule of *Rylands v. Fletcher*, L.R. 3 H.L. 330 [1868]. The House of Lords held that when a person brings something on his property that is not naturally there, he will be liable for damages resulting from its escape. The doctrine was cited with approval in a case that was decided on other grounds. Defiance Water Co. v. Olinger, 54 Ohio St. 532, 539-40 (1896). In a later case the Ohio Supreme Court adopted the *Defiance Water* dictum for its holding but limited application of the rule of *Rylands v. Fletcher* to cases involving "extraordinary" rather than "unnatural" use of property. Bradford Glycerine Co. v. St. Marys Woolen Mfg. Co., 60 Ohio St. 560 (1899). *Bradford Glycerine* was ultimately overruled and the rule of *Rylands v. Fletcher* was rejected in Ohio. Langabaugh v. Anderson, 68 Ohio St. 131 (1903). A general acceptance of *Rylands v. Fletcher* would have had the effect of overruling much of the doctrine that was developed in Ohio nuisance cases during the nineteenth century.

character as an exception to the rules and the official policies of the day is revealed by the fact that this decision was never cited as authority in any subsequent nuisance case. Indeed, the one time *McClung v. North Bend Coal & Coke Co.* appears in the report of another case,[120] the opinion of the circuit court on an interlocutory order[121] is cited as authority for the proposition that an injunction may be suspended pending the outcome of appellate review.

Despite the late nineteenth century's failure to develop a common law doctrine that would meet the demand for protective regulation of the environment, it did develop the legal form that has eventually (if grudgingly at times) been adopted to that end. That form is reflected in the abstract notion of a legally recognized interest. The rise of the administrative state of the twentieth century has adopted precisely that abstract form in giving legally binding effect to agency discretion. As in the nineteenth century, when delegation of legislative authority to private interests facilitated the effectuation of public policy in ways that the legislature could not accomplish acting on its own, in the twentieth century legislative power is delegated to administrative agencies whose technical expertise entitles them to a degree of deference that the process of political deliberation in Congress still does not command. Controversy in society is submitted to the external mediation of legal reason on the one hand and scientific expertise on the other. Thusly we are ruled.[122]

CONCLUSION

Much was at stake when the Ohio judiciary interposed its authority in the dispute between Morris Seely and the Ohio Canal Commission. Today the stakes are greater still. Our civilization has discovered enough of the secrets of the atom and the DNA molecule to be able to tinker with the very structure of reality as we know it. At this moment there are microbes locked away in laboratories that if released into the environment may prove to be a boon to humankind, or perhaps, a passport to Hell. The courts and legislatures have bowed to the wisdom of technical rational administration. The administrative agencies impatiently await the verdict of science. The ecologists apologetically recant: we just do not know. From time out of mind we have submitted to the hegemonic rule of legal reason and scientific expertise. Time and time again they have failed us. Perhaps the time has finally come when we need to take the risk of submitting the controversies of the day to a process of truly democratic decision making.

---

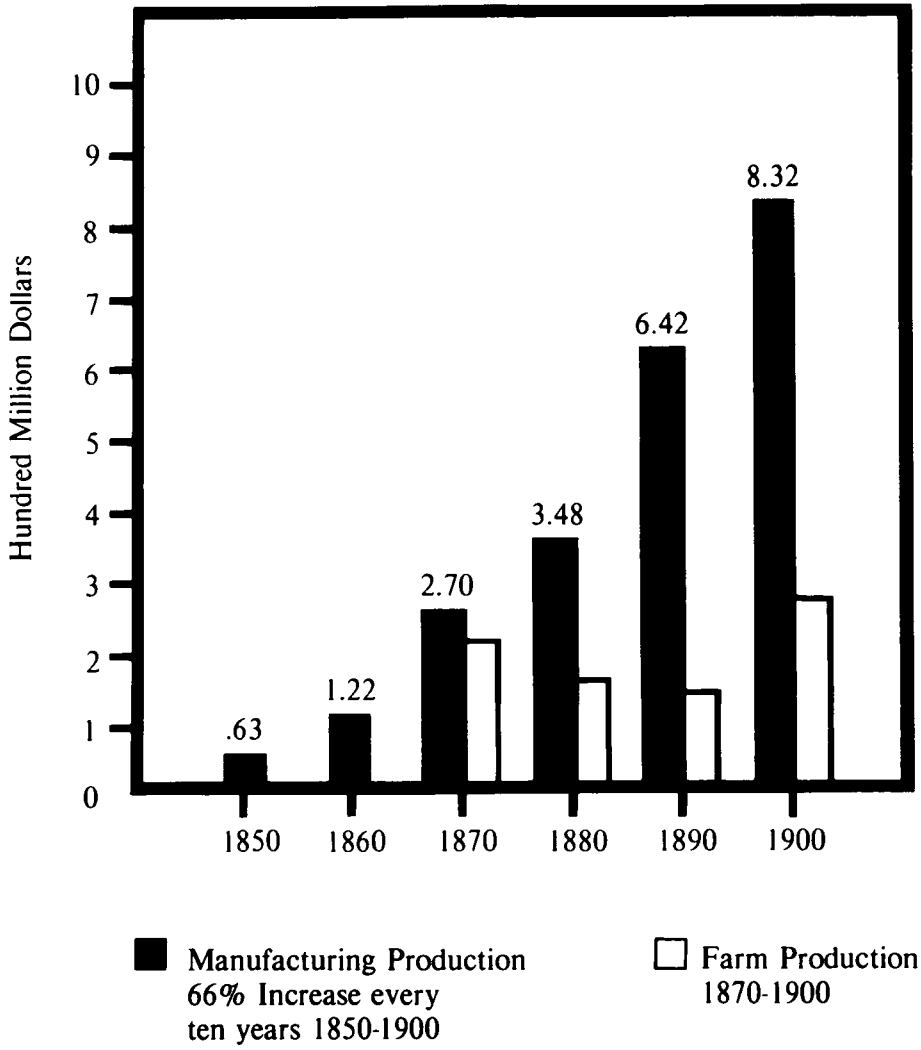
[120]Beiser v. Grever Twaite Co., 11 Ohio Dec. 444 (Super Ct. of Cincinnati 1901).

[121]McClung v. North Bend Coal & Coke Co., 1 Ohio Dec. 187 (C.P. Hamilton 1892), *aff'd* 9 Ohio C.C. 259 (1895).

[122]*See* NLRB v. Wyman-Gordon Co., 394 U.S. 759, 775 (1969) (opinion of Douglas, J. dissenting).

APPENDIX — I

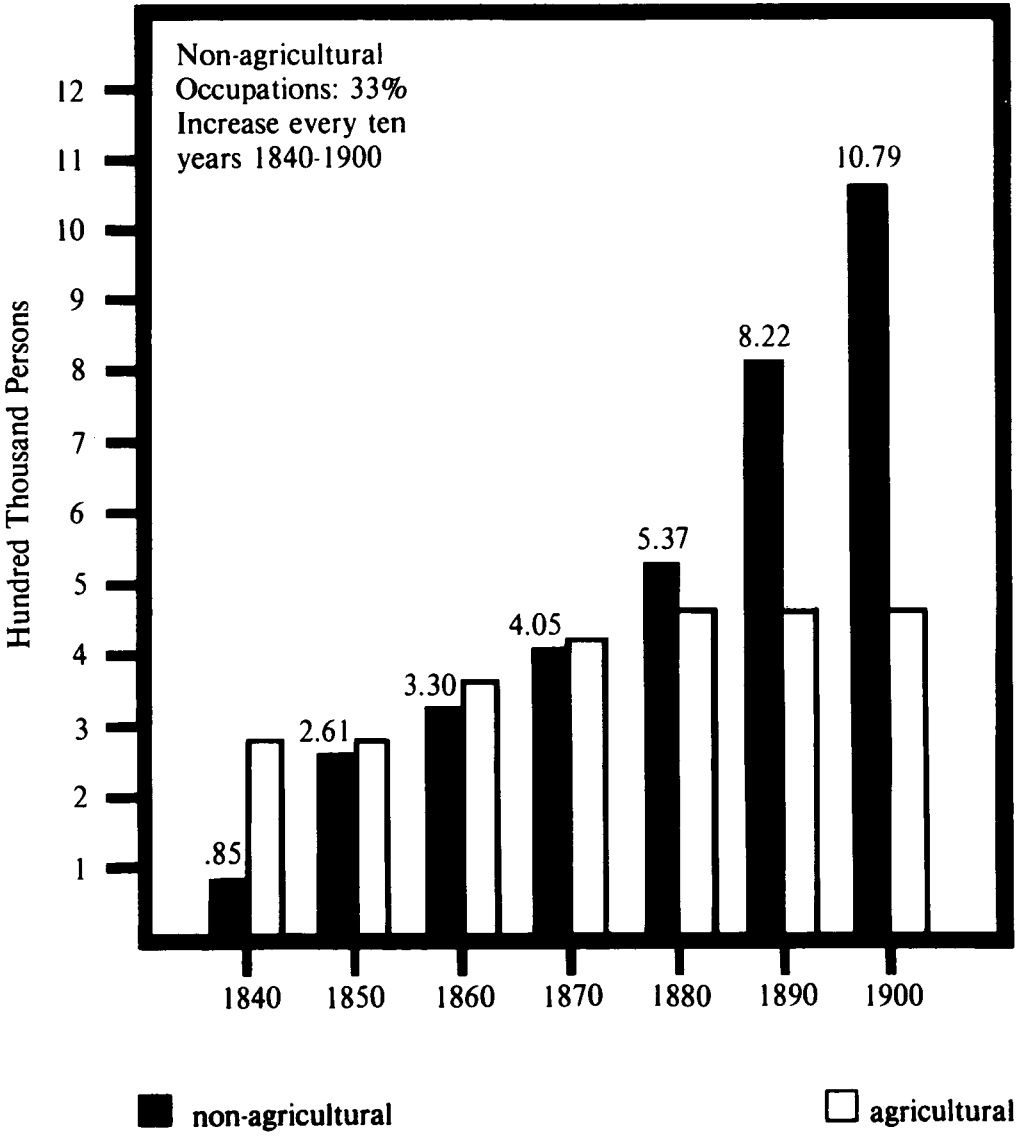
Chart One: Value of Goods Manufactured in Ohio 1850-1900 Compared With Farm Production 1870-1900 (Based on United States Census Data)



Akron Law Review, Vol. 18 [1985], Iss. 2, Art. 4

APPENDIX — II

Chart Two: Number of Persons Engaged In Non-agricultural Occupations Compared With Persons In Agricultural Occupations In Ohio 1840-1900 (Based On United States Census Data).



APPENDIX — III

Chart Three: Population of Ohio 1790-1900 (Based on United States Census Data).