



Rhode Island History

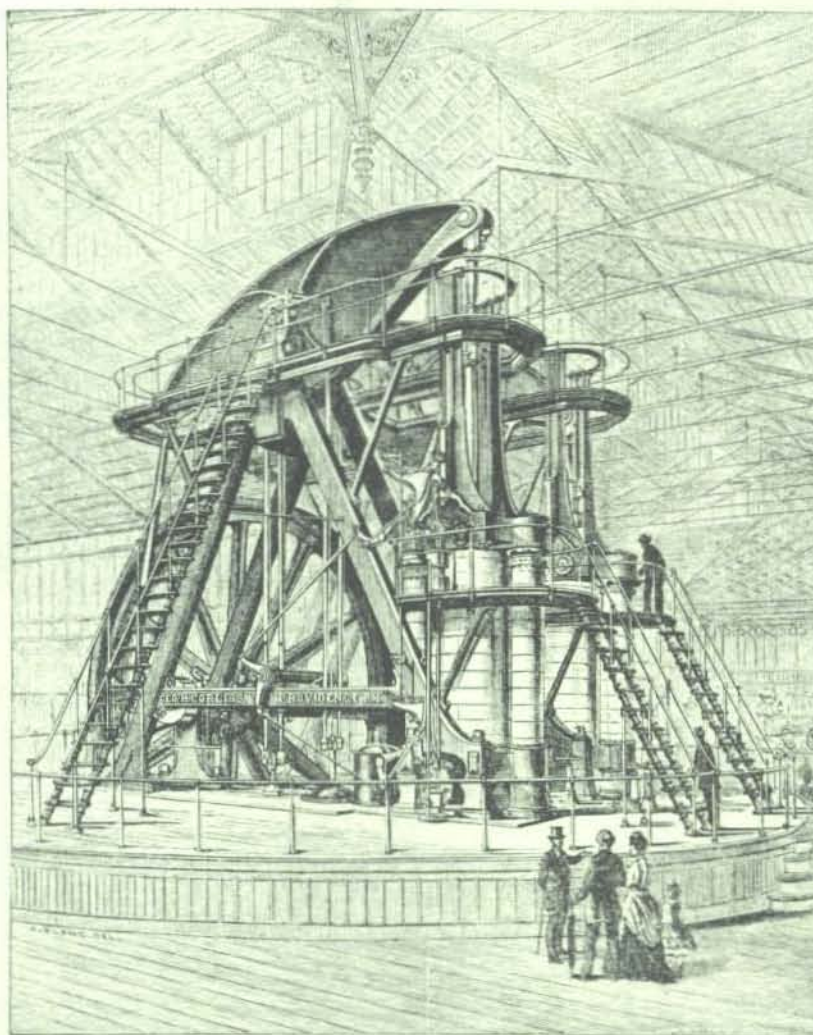
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This late nineteenth-century illustration presents a romanticized image of Anne Hutchinson's trial during the Antinomian controversy. Hutchinson was banished to Rhode Island where she and her followers formed the first Aquidneck Island settlement at Pocasset in 1638. From Scribner's Popular History of the United States (1897). Reprinted courtesy of the Pawtucket Public Library.



Freedom of Religion in Rhode Island: Aquidneck Island's Reluctant Revolutionaries, 1638–1660

Sheila L. Skemp

Rhode Island has been both praised and vilified for its apparent inability to come to terms with the rest of the world. Founded by heretics from the proudly Puritan colony of Massachusetts Bay, filled by the eighteenth century with independent merchants who gladly traded with the French enemy during wartime, possessed of politicians who long ignored the attempts by the Founding Fathers to "form a more perfect union," Rhode Island often marched to a different beat. As one historian has pointed out, the words "except in Rhode Island" seem to accompany any generalization about colonial America.¹

Rhode Island was different from its very inception, particularly where spiritual matters were concerned. Religious diversity characterized the colony almost immediately, and the settlements quickly severed the connection between church and state, so that religious liberty—not mere toleration—was the accepted order of the day. Even those inhabitants who rejected religion altogether were welcomed in Rhode Island.

The move toward separation of church and state came relatively easily to the mainland settlement of Providence, founded in 1636. There Roger Williams dominated the scene, forcing settlers and subsequent generations of historians to accept any discussion of religious liberty on his terms. Williams conceptualized and publicized his notion of "soul liberty" before his banishment from Massachusetts, and founded Providence with the express intention of allowing its members freedom of conscience.

In 1638, Anne Hutchinson and her followers formed another Rhode Island, located on the island of Aquidneck in Narragansett Bay. Although they, too, had been cast out of the Bay colony for their controversial religious beliefs, Aquidneck's settlers did not immediately embrace Williams's vision of religious liberty. Indeed, the evidence indicates that Hutchinson's followers moved with reluctance toward this policy. They came to Rhode Island determined to form a settlement that would generally adhere to the values and practices they had known in the past. Consequently, they planned to develop the same close bond between church and state that existed in Massachusetts—and that was accepted in all western countries in the seventeenth century. Unlike Roger Williams, they had no doubts concerning the desirability of maintaining this close relationship. They simply failed to attain it.

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¹Sydney V. James, *Colonial Rhode Island: A History* (New York, 1975), xvi.

²John Winthrop, *Winthrop's Journal, "History of New England" 1630-1649*, 2 vols. in John F. Jameson ed., *Original Narratives of Early American History* (New York, 1908), I, 277, 284, II, 41. See also, Edward Johnson, *Johnson's Wonder-Working Providence, 1628-1651* (New York, 1910).

³William Coddington, *A Demonstration of True Love* (London, 1664), 17; and John Clarke III *Newes from New-England*, in Massachusetts Historical Society *Collections*, 4th Ser., II, 23, 24. Coddington eventually agreed with this interpretation for, in later years, he told John Winthrop that he had left because he "was not willing to liue in the fyer of contention with yourself [and others whom I honored in the Lord]." See William Coddington to John Winthrop, May 22, 1640 in *Winthrop Papers, 1498-1649*, 5 vols. (Boston, 1929-1947), IV, 246.

⁴For quotations see Edmund S. Morgan, *The Puritan Dilemma: The Story of John Winthrop* (Boston, 1958), 155; Larzer Ziff, *Puritanism in America: New Culture in a New World* (New York, 1973), 67; and Amy S. Lang, "Antinomianism and the 'Americanization' of Doctrine," *New England Quarterly* LIV (1981), 238. See also Sidney Mead, *The Lively Experiment: The Shaping of Christianity in America* (New York, 1963), 28; and Perry Miller, "The Contribution of the Protestant Churches to Religious Liberty in Colonial America," *Church History* IV (1935), 61.

The Aquidneck experience foreshadowed the collapse of state-enforced religious opinion that would occur in all the American colonies. Rhode Island's settlers discovered that the individualism inherent in Protestantism, coupled with the impossibility of controlling beliefs in a country where dissenters could simply pull up stakes and retreat still further into the wilderness, made a policy of religious freedom necessary, if not desirable.

To grasp why Aquidneck's inhabitants were forced to accept religious liberty by 1641, one must first understand why so many of Hutchinson's supporters followed her to Rhode Island during the Antinomian Controversy. Here, the record is confusing. Contemporary critics of "Rogue's Island," as John Winthrop called it, claimed that the colony was little more than a haven for the lazy, the licentious, and the ignorant. Its settlers, they insisted, went to Rhode Island only to indulge their wicked passions and base desires.² Not surprisingly, those who migrated to Aquidneck quarreled with this view. Some claimed that they left Massachusetts for purely religious reasons, as a result of their attraction to Anne Hutchinson's controversial version of Puritanism. Said William Coddington, one of Hutchinson's most eminent supporters, "the Difference, it was about *Grace*. . . . So all the Differences in the Country was about *Grace*." Others, like Reverend John Clarke, claimed that they went to Rhode Island simply "for peace sake," because "they were not able so to bear with each other in their different understandings and consciences."³

The controversy over the motives of Aquidneck's first settlers has not abated. Historians tend to view the island's founders in one of two ways. Some, while they do not vilify the colony's early settlers as did Puritan detractors, continue to argue that the Antinomians were religious "zealots" looking for "a private heaven on earth." They emphasize the individualistic strain inherent in Antinomianism, asserting that the views attributed to Hutchinson by both her supporters and critics irrevocably led to "a concept of the individual as finally being more important than the state," and they claim that her beliefs were "fundamentally inimical to the formation of community." This argument implicitly assumes that Hutchinson and her followers were philosophically prepared, even before they left Massachusetts, to do away with state interference in matters of conscience; that their spiritual values, untainted by the need to compromise or adapt to circumstances, provided the impetus for their acceptance of religious freedom.⁴

More on target, but also unsatisfactory, are the "secular" interpretations of Rhode Island's origins. These studies have the merit of removing the stain of licentiousness and fanaticism from most of the colony's founders, showing that social and economic problems were, in the seventeenth century, often expressed in religious terms. Thus Bernard Bailyn demonstrates how merchants, frustrated by the moral and economic strictures of the Puritan oligarchs, saw in Antinomianism a means of freeing themselves from state control and adopting more tol-

erant attitudes toward religious differences. Ironically, these studies still lead historians to conclude that the most influential Aquidneck settlers came to Rhode Island already equipped with values that predisposed them toward accepting religious freedom. They may have adopted such a policy because of their interest in free trade instead of their acceptance of free thought, but they still left Massachusetts ready to abandon state-supported religion.⁵

Aquidneck was not composed of a motley assortment of religious fanatics, or led by a group of worldly merchants who wanted to abandon their commitment to enforced religious conformity. Rather, the colony's founders came to Aquidneck, much as Puritans came to Massachusetts, determined to create a society whose members would worship in one church and subscribe to one theology, the interpretation of the Bible as put forth by Anne Hutchinson. In Boston, they had been drawn to the classes Hutchinson conducted in her home to "explain" the sermons of the Reverend John Cotton and, later, to use her interpretation of his theology as a weapon against the town's religious and political leaders. One of these leaders, Governor John Winthrop, would later describe Hutchinson as

A woman of haughty and fierce carriage, of nimble wit and active spirit, a very voluble tongue, more bold than a man though in understanding and judgment inferior to any woman.⁶

The controversy between Hutchinson and the authorities in the Bay community centered upon the question of grace. Hutchinson, like all Puritans, was concerned with the need for assurance of grace, which led her to emphasize the mystical strain inherent in Puritanism and to denigrate all attempts to give humans a hand in securing their own salvation. Such attempts smacked of the "papist" heresies she had come to the New World to escape. Hutchinson and her followers rejected the notion that individuals could earn their way to heaven. The human role, they insisted, was utterly passive. Further, humans could not look to their ability to conform to God's law as evidence of their salvation. John Cotton, Hutchinson's mentor, had asserted that in certain cases a man might be totally degenerate yet be assured of election. Hutchinson's followers went even further; they seemed at times to indicate that works should not even be urged upon the unregenerate. This, according to John Wheelwright, brother-in-law of Anne's husband, William, and an Antinomian minister, would kill the soul of man and result in the added evil of hypocrisy. "Brethren," he admonished, "those under a covenant of works [the] more holy they are, the greater enimyes they are to Christ."⁷

At a time when many Puritan leaders were insisting that God used natural means to bring regenerative grace to man and the minister's role as the bearer of the spoken word was being exalted as never before in the Bay community, Hutchinson and her supporters sought to diminish the importance of the spoken and written word and pushed inexorably

⁵See Emory Batts, *Saints and Sectaries: Anne Hutchinson and the Antinomian Controversy in the Massachusetts Bay Colony* (Chapel Hill, 1962); and Bernard Bailyn, *The New England Merchants in the Seventeenth Century* (New York, 1955).

⁶John Winthrop, *A Short Story of the Rise, Reign and Ruin of the Antinomians of New England* . . . (London, 1644), 31.

⁷John Wheelwright, "A Fast Day Sermon, January 1636," in Charles H. Bell, ed., *John Wheelwright Writings* (Boston, 1876), 163-166.

⁸"The Elders Reply," in David D. Hall, *The Antinomian Controversy, 1636-1638: A Documentary History* (Middletown, CT, 1968), 66.

⁹Wheelwright, "A Fast Day Sermon," 161; Winthrop, *Journal*, I, 209.

¹⁰Winthrop *Papers*, IV, 9.

toward a greater reliance on the immediate union of the individual with Christ. Assurance came only through spiritual witness, a witness that was absolute, immediate, and ultimately mystical.

Hutchinson's theology created a furor in Massachusetts Bay, where its practical implications were grasped immediately. Many saw it as a factious religious movement that would lead to spiritual and civil disorder, as well as the breakdown of ties between civil authority and religious doctrine. Antinomianism, they said, led logically to the assertions that church attendance and prayer were unnecessary and that the law was efficacious only for the elect. Hutchinson's religious beliefs seemed "to open a wide door of temptation as unto Sin with less fear, so unto a bold continuance and slight healing of sin and breaches thereby."⁸ Moreover, the controversy caused religious belief to be questioned and debated, ultimately leading to the creation of religious diversity with each group claiming to be based on the witness of the indwelling spirit. Nor did Bostonians lack proof for their fears. As leaders like Wheelwright called for his supporters to "prepare for battell and come out against the enemyes of the Lord," church members publicly questioned their ministers. Some, mostly women, simply walked out of the church when "objectionable" sermons were preached. Fratricidal controversy threatened to tear apart the Bay community, "and it began to be as common . . . to distinguish between men by being under a covenant of Grace or a covenant of works, as in other countries between Protestants and papists."⁹

Winthrop saw Antinomianism as an anarchistic and subversive movement aimed at destroying all ties between civil and religious authority. He insisted that the opinions of Hutchinson's followers could not "stand with externall peace" and would necessarily lead people to "looke at their magistrates, ministers and brethren as enemies to Christ and Antichrists."¹⁰ The policy of religious freedom adopted at Aquidneck in 1641 was, to him, the logical result of Hutchinson's theology. Yet there is little evidence to support Winthrop's conclusions. Some aspects of Antinomianism were obviously conducive to the notion of individual interpretation of religious truth and could logically lead to religious infighting. But the first settlers of Rhode Island were not aware of this possibility, nor did they condone it. They refused to countenance religious diversity while they resided in Massachusetts, and were even less willing to accept dissension after they had created their own colony. For Hutchinson and her followers were not relativists, any more than were the first Puritans who arrived on America's shores. Like those first Puritans, the Aquidneck settlers imagined that their willingness to listen to the word of God instead of the admonitions of man would lead to religious agreement. People whose spirits were in harmony with God would, they assumed, harmonize with one another.

Indeed, the records indicate that Aquidneck's settlers intended to establish a settlement based on traditional foundations. Admittedly, the existing evidence is rather slim, for the colony's settlers never addressed the question of church-state relations until *after* the policy of religious

freedom was instituted. But the very fact that they did not discuss the issue might in itself indicate that they contemplated no great alterations in the church's position. Roger Williams, in Providence, had certainly outlined and defended in great detail his plans for a new colony. Moreover, the actions of the first colonists on Aquidneck strongly suggest that the little colony's founders envisioned a state-supported church in their new-found home.

The first concern of the Aquidneck settlers was to build a stable government that would assure community order. This desire implied the need for a government in which religious matters were viewed with one accord, one where "different understandings and consciences" would not trouble the community. To Anne Hutchinson, as well as to John Winthrop, the notion that competing religions could coexist in an orderly and stable community was inconceivable. Order was based on uniformity, not diversity, in seventeenth-century America.¹¹

In most respects, the settlers of Aquidneck created a society that did not differ markedly from other New England communities. Its members were a basically conservative and hard-headed lot who planned to establish a society that valued class distinctions, property rights, and respect for the law, and would encourage all inhabitants to conform to the same beliefs. They managed their secular affairs with as much ease as could be expected from a frontier settlement existing beyond the bounds of legitimate society. When they formed their colony at Pocasset (later Portsmouth), the settlers chose as their leaders men who, had they remained in the Bay colony, would have been, in time, "the first characters in Massachusetts." They did not turn to John Wheelwright or to any of the other members of the Hutchinson clan to guide them through the difficult period of adjustment. They trusted successful planters, merchants, and artisans: men like William Coddington, William Brenton, John Coggeshall, and Nicholas Easton, all of whom had been respected leaders at Massachusetts Bay.

The traditionalism of Aquidneck's first settlers did not end with their choice of leaders. With Pocasset's first land divisions, the community laid the basis for a stratified social order. In addition to the town lots of roughly six acres granted to each of the original proprietors, William Hutchinson was awarded "six lots for himself and his children layed out at the Great Cove," and both he and Coddington received extra acreage for plowing.¹² The second land division allowed newcomers only half the land reserved for the first settlers. There was, in the first few years of settlement, no attack upon this undemocratic mode of division.

In their economic policies the Aquidneck settlers were also in basic accord, and again those policies were not at all new, much less revolutionary. The Pocasset settlers quickly guaranteed the right of each freeman to "rightly possess and enjoy his own property" and the government at Newport did the same in 1639. Both communities strictly regulated their economies in an effort to assure that the social organism would function in a fair and orderly manner. Merchants like Coddington



John Winthrop, governor of the Massachusetts Bay colony at the time of Anne Hutchinson's trial, later described Aquidneck Island as "Rogue's Island." The artist of this painting (c. 1629) is unknown. Courtesy of the American Antiquarian Society.

¹¹ John Clarke, *Ill News*, 23, 24. This inability has also been noted by Isaac Backus who claimed that Rhode Island settlers did not really have an adequate conception of the nature, rationale, or justification of liberty of conscience in their first years of settlement. Isaac Backus, *History of New England with Particular Reference to the Denomination of Christians called Baptists*, 2 vols. (Newton, Mass., 1871), I, 97.

¹² Coddington received ten acres of plowing ground; Hutchinson received six. John R. Bartlett, ed., *Records of the Colony of Rhode Island and Providence Plantations in New England*, 10 vols. (Providence, 1856-1865), I, 53, 55, 56. In Newport, Coddington again was given special recognition when he received an extra six acres to plant an orchard. See *Ibid.*, I, 89.



Governor William Coddington's Newport residence was built in the 1640s during the town's earliest years. The Coddington House was torn down in 1835. This engraving appeared in Scribner's Popular History of the United States (1897). Reprinted courtesy of the Pawtucket Public Library.

¹³ *Ibid.*, 55, 58, 59, 66, 90, 113, 117; Howard M. Chapin, *Documentary History of Rhode Island*, 2 vols. [Providence, 1916], II, 142, 143.

¹⁴ Winthrop, *A Short Story*, viii. John Wheelwright himself admonished his followers to be particularly careful of their moral posture so as to give their detractors no excuse to malign them or impune their motives. See Wheelwright, "A Fast Day Sermon," 174, 175.

¹⁵ Roger Williams to John Winthrop, Aug., 1638, in J. R. Bartlett, ed., "The Letters of Roger Williams, 1632-1682," *Publications of the Narragansett Club*, 6 vols. [Providence, 1874], VI, 110-114.

and Coggeshall may, as Bailyn suggests, have chafed at the restrictions imposed by the Puritan oligarchy, but they were hardly prepared to institute a society where free trade predominated. Thus permission had to be granted when settlers wanted to set up taverns or bakeries, and town authorities encouraged freemen in their efforts to develop mills or to engage in the venison trade with the Indians. Prices and profits were strictly regulated. Indeed, no one in either Pocasset or Newport, be he farmer, artisan, or tradesman, escaped governmental control.¹³

The economic policies that Aquidneck's new inhabitants chose to give shape to their community succeeded. The settlers quickly abandoned their first crude tents and bark-covered Indian dwellings and moved into more comfortable houses. Some members of the community took advantage of their initially superior position to amass extensive property holdings, thus escaping the life of subsistence farming that characterized the lot of most of Aquidneck's early residents. And, while the island's economy was based on farming, the beginnings of small-scale trading activity quickly appeared. By the early 1640s, both Pocasset and Newport were economically diversified communities that maintained a social structure complete with merchants, artisans, laborers, and farmers. From a purely material perspective, it appeared that the little colony would survive.

The Pocasset and Newport inhabitants also endeavored to keep the peace and preserve a basic sense of civil order. They did not, as their critics claimed, champion a society that prospered the "casting down of all ordinances as carnall," or allow their members to grow "very loose and degenerate in their practices."¹⁴ Buttressed by no legal authority, possessing no prison in which to incarcerate undesirables, and surrounded by a huge "wilderness" into which even a convicted criminal could flee, their ability to maintain order was limited. Yet Aquidneck's leaders stubbornly opposed tendencies toward lawlessness with all the force they could muster.

In Pocasset, lawlessness was an immediate problem, exacerbated by the flood of new settlers who inundated the settlement. Freemen often refused to attend town meetings, and criminals from other colonies fled to the island, hoping perhaps to find a refuge in the much maligned settlement. Less than one month after a pair of stocks and a whipping post were installed, three men were fined and ordered to sit in the stocks for engaging in a "Riott of Drunkenesse," while four of their companions were fined for their part in the affair.¹⁵

As in Pocasset, Newport's leaders were quick to provide bulwarks against possible chaos. Respect for the authority of the court was earnestly inculcated, and recalcitrant types were taken care of summarily. In spite of an occasional "riott of drunkenesse" in Pocasset, or the presence of a "lude fellow" or two in Newport, neither town ever completely lost its ability to secure civil obedience from its inhabitants. In Newport, in fact, it was not even deemed necessary to build a prison during this period, although a pair of stocks and a whipping post were

constructed in December 1639 to deal with occasional breaches of the peace.¹⁶

In religious matters, as well, the settlers at Pocasset and Newport were deeply traditional. When Pocasset's settlers devised their government in March 1636/37, they submitted to a "covenant" between themselves and their rulers. While this covenant had English precedent, it was explicitly religious in orientation. Incorporating themselves into a "Bodie Politick," community members promised, "in the presence of Jehovah" to submit their "persons, lives, and estates unto our Lord Jesus Christ and to all those perfect and most absolute laws of his given us in his holy word of truth" and "to be guided and judged thereby." Modeling their government on the "first government after Israel came into Canaan," they created the unmistakably Hebraic office of "judge," appointed William Coddington to fill this position, and agreed to yield all obedience to him inasmuch as the laws of God permitted. He was, apparently, to hold his position permanently, unless he violated either the fundamental rights of the partakers of the covenant or the laws of God. Furthermore, no one would be received as an inhabitant or freeman of the island community unless they submitted to the established government "according to the word of God."¹⁷

There are other signs that the Aquidneck settlers maintained a traditional relationship between church and state. One of the first orders of business for the Pocasset Assembly was to appoint a committee to lay out land and choose a site for the meeting house, an indication that religious worship was a top priority for these early settlers. This indicates, too, that they meant to worship in a unified manner, in a church formed and supported by their own government. As late as January 7, 1639/40, long after they had apparently abandoned their ambitious plans to build a common meeting house, the government was still trying to express its support for religion. The "Particular Courte" of that date decided that, as the next General Court was scheduled to fall on February 2, a Sunday, it should be moved to January 29. Later, even after Rhode Island's inhabitants had come to accept the necessity for religious liberty, the Hutchinson faction continued to send envoys to Boston to "advise and debate" with the church there and, of course, to be imprisoned for their troubles.¹⁸

Almost from the beginning, dissension, not conformity, characterized the pattern of religious life on Rhode Island, a fact that did not go unnoticed by critics in Boston. Winthrop reported with obvious relish that in Pocasset, Nicholas Easton was preaching that the elect had both the Holy Ghost and devil dwelling within them. And "one Hearne" preached that women had no souls and Adam had not been created in true holiness. Edward Johnson, one of the island's severest critics, noted that many who were drawn to it were "very ignorant and easily perverted" by such blasphemous doctrines and claimed that Aquidneck's settlers were "very diverse in their opinion, and glad, where they could gain most Disciples to hear them." These accounts of Pocasset's reli-

¹⁶ Chapin, *Documentary History*, II, 139, 142, 150; *Recs. of R.I.*, I, 60; Coddington to Winthrop, May 22, 1640, *Winthrop Papers*, IV, 247. Only William Coddington appeared to be disturbed by the conspicuous absence of a prison in Newport. See Coddington to Winthrop, June 12, 1643, *Winthrop Papers*, IV, 393; and *Recs. of R.I.*, I, 94, 96.

¹⁷ *Recs. of R.I.*, I, 52, 53; Backus, *History of New England*, I, 78. This same procedure was also followed in Newport. See *Recs. of R.I.*, I, 87.

¹⁸ *Recs. of R.I.*, I, 54; Chapin, *Documentary History*, II, 82; Samuel Gorton, *Simplicities Defence Against Seven-headed Policy* (London, 1646), 7, 8.

¹⁹See Winthrop, *Journal*, I, 284, and Johnson, *Wonder-Working Providence*, 185, 186. To Winthrop, even a natural disaster such as a mild earthquake occasioned gleeful reports of God's displeasure with the Rhode Island settlers. See Winthrop, *Journal*, I, 270, 271.

²⁰Gorton, *Simplicities Defence*, 26, 67, 236; Winthrop, *Journal*, II, 145, 147, 148.

²¹*Recs. of R.I.*, I, 63, 64.

gious heterodoxy were secondhand and hyperbolic. Nevertheless, in that remote little settlement, completely free from the jurisdiction of other colonial governments, it is hardly astonishing that diverse religious opinions seemed to spring up almost overnight, or that proponents of other religious beliefs found their way to Rhode Island at a very early date.¹⁹

The most significant threat to conformity and harmony came with Samuel Gorton's arrival at Pocasset in 1638. Gorton's presence appeared to challenge the very existence of the settlement. While he was not the ignorant and illiterate individual John Winthrop claimed him to be, the strange religious views attributed to Gorton—his attacks on the ministry, its sermons, baptism, and communion ("your dished up dainties turning the juice of a silly grape that perisheth into the blood of Christ by the cunning skill of your magicians")—were not such as would make him a welcome member of any Puritan community. Gorton seemed most dangerous when he insisted that Pocasset's authority was illegal, that its members were hypocrites who had gone to Rhode Island "to establish themselves in ways to maintain their own precious lusts," and that once there, they "denied in their public courts that the laws of our native country should be named amongst them." These accusations played directly into the hands of the town's enemies.²⁰

Anne Hutchinson was evidently not concerned about the threat posed by Gorton. William Coddington, however, found Gorton's religious beliefs, as well as their possible political consequences, anathema. After Gorton's arrival, Hutchinson, Gorton, and their supporters appeared united in their opposition to his position, making the situation, from Coddington's perspective, intolerable. He had already left Boston due to the storms of religious debate, and had hoped to find in Rhode Island a place of peace among a group of like-minded people who would worship together without controversy. The appearance of Samuel Gorton helped make a shambles of his dream.

Coddington did his best to resist the threat posed by Gorton and to impose a semblance of order in Pocasset. In a skillful attempt to head off further conflict, he called a special meeting of the assembly on January 2, 1638/39. His faction controlled the meeting, as none of the Hutchinsons and only a minority of their supporters attended. At this meeting Coddington appeared to relinquish some of his authority, but in actuality he strengthened his position. He consented to the selection of three elders (Easton, Coggeshall, and Brenton, all his supporters) to assist him in carrying out his duties. Their combined actions would be reviewed quarterly by the body politic, which could repeal any regulation that "the Lord shall be pleased to dispense light to the contrary of." This, it was hoped, would destroy the influence of the Hutchinson-Gorton faction, solidify Coddington's hold on the political process, broaden his political base, and by drawing more people into the government, make open rebellion less probable.²¹

The account of the January meeting reveals no ambivalence concerning the role of the state in religious affairs. The judge and elders were

instructed to draw up all "Rules and Laws as shall be according to God," and to "Rule and Govern according to the General Rule of the Word of God." When the freemen assembled quarterly to review their leaders' actions, they were to judge them "by the word of Christ." In effect, while the meeting created a limited government, it was to be inhibited not by the will of the people but by the "light" of God.²²

Just three weeks later, however, on January 24, the freemen appeared to be having their first small doubts concerning enforced religious conformity. The meeting was entirely devoted to the issue of law and order, an indication that disorder continued to plague the community despite the governmental reforms enacted earlier. In response, the freemen created two new offices, a constable (Samuel Wilbore) and sergeant (Henry Bull). These officials were instructed to halt civil disorders and enforce a ban against unlawful (seditious?) meetings. At the same time, William Brenton was ordered to proceed with the building of a new prison. Perhaps more significantly, the meeting ordered both new officers to "informe in General of all *manifest* Breaches of the Law of God that tend to Civil disturbances."²³ Apparently private attacks on God's authority were to be ignored. Coddington and his supporters were beginning to realize, however imperfectly, that enforced conformity did not always breed order and stability.

Indeed, chaos continued to characterize the affairs of Pocasset, and it became clear that Coddington's attempt to improve the government's hold over the community was abortive. More important, religious acrimony continued to spill over into the secular arena, threatening to destroy political as well as spiritual harmony. By March, Hutchinson and her followers were declaring that they "would have no magistracy" and in April, when Coddington was temporarily out of the village, "the people grew very tumultuous and put out Mr. Coddington and the other three magistrates."²⁴ The precise cause or causes of the final split and the consequent decision by Coddington and his supporters to leave Pocasset remain a mystery. Subsequent events indicate that Coddington's own considerable ambition may well have impelled him to sanction the move. No doubt, as Stephen Hopkins pointed out much later, the physical attractiveness of the Newport area had much to do with the decision. That William Brenton, one of the principal signers of the Newport compact, remained in Pocasset, coupled with the fact that Coddington continued on good terms with many of the little community's residents, indicates that the rift between the two settlements was never unbreachable.²⁵

Those who chose to remain in Pocasset quickly formed a new government that deviated in several significant ways from the one headed by Coddington. Perhaps due to Gorton's influence, they acknowledged for the first time their fidelity to King Charles I. Moreover, they resolved to bind themselves into a "civil body politicke" and to make laws, not according to the light of God but "according to matters of justice." They went on to select a "ruler or judge" whose tenure was limited to a one-year term, and appointed William Hutchinson to fill the

²² *Ibid.*

²³ *Ibid.*, 65, 66. Emphasis mine.

²⁴ Winthrop, *Journal*, I, 297, 299.

²⁵ Stephen Hopkins, "Planting and Growth of Providence," in Rhode Island Historical Society, *Collections*, VII (1885), 35; Coddington to Winthrop, December 9, 1639, *Winthrop Papers*, IV, 161.

²⁶ *Recs. of R.I.*, I, 70; Winthrop, *Journal*, I, 299.

²⁷ *Recs. of R.I.*, I, 87.

²⁸ Irving B. Richman, *Rhode Island: Its Making and Meaning*, 2 vols., (New York, 1902), I, 127, 135.

²⁹ Coddington to Winthrop, December 9, 1639, *Winthrop Papers*, IV, 161; *Recs. of R.I.*, I, 93, 94, 98.

³⁰ *Recs. of R.I.*, I, 100, 101.

position. While no reference was made to religious freedom, the new government certainly went a long way toward establishing a secular state. The "revolution" of April 1639 did much more than eject a few unpopular faces from Pocasset. It acknowledged a wholly new basis for governmental authority and altered the complexion of its leadership.²⁶

The government at Newport reflected a few minor changes in direction, as the new compact omitted all references to a government based on the authority of God. Still, its inhabitants did not proclaim their fealty to the king, and they continued to have a government composed of judges and elders who held office indefinitely. The judge, William Coddington, was in a stronger position than ever, having secured a "double voice" for himself in all government determinations.²⁷

It was not long before Pocasset and Newport reconciled their differences. The Coddington faction had taken all the official records to Newport, thus hastening the unification of the two quarreling communities. Moreover, the title to the Aquidneck lands belonged to a corporation, of which some members lived in Newport while others resided in Pocasset. For practical reasons alone, it was imperative that the parties involved come to some agreement.²⁸ Soon many Pocasset families who "had revolted from their own act" followed the original settlers to Newport. And by November 1639, the Coddington government took some important steps toward uniting the two communities. On November 25, in a move obviously calculated to diffuse some of Gorton's criticisms, as well as to give themselves a semblance of legitimacy, "the Body Politicke in the Ile of Aquidnec" proclaimed its members to be "natural subjects" of the English crown and placed themselves formally under British law. At the same time, delegates were sent to Pocasset to discuss terms of a possible reunion. The group also instructed Nicholas Easton and John Clarke to write to Sir Henry Vane, former governor of Massachusetts and a supporter of the Antinomian cause while he was in Boston, to ask his aid in procuring a royal patent for the island. Two months later the Coddington faction further exhibited good faith by agreeing to the annual election of officers by all the freemen.²⁹

Finally, on March 12, 1639/40, the two communities agreed to unify and create a government that was more secular—and more English—than any yet formed on the island. The chief officer, now called simply the Governor, was aided by four assistants, two chosen from each town. All were elected for a one-year term. At the same time, Pocasset rejected its Indian name, choosing to be known henceforth as Portsmouth.³⁰

Once again the town governments on Aquidneck were free to deal with the task of achieving stability for their inhabitants. But Newport's settlers, in particular, soon discovered that the political resolution of their problems had done nothing to halt the spread of religious diversity. Indeed, Newport, like Pocasset before it, was quickly beset by a wide variety of religious proselytizers; religious opinion again threatened to become a dominant issue. The community was visited almost immediately by three new spiritual leaders: Robert Lenthall, the Reverend Francis Doughty, and Ezekiel Holliman. Holliman had baptized

Roger Williams and was, in 1640, the only Baptist on the island. Both Lenthall (who had "fallen out" from the church covenant in Weymouth and had been censured by the annual meeting of the general court) and Doughty (who created religious disturbances in Massachusetts, Rhode Island, and New York before finally moving to Virginia) contributed their own peculiar religious views to the assortment already thriving on the island. At the same time, Nicholas Easton, professing distaste for the consequences of his own findings, was proclaiming that man had no free will, and that God was the direct cause of all earthly action, and of logical necessity, the author of sin. The controversy over Easton's theological insights culminated in a schism: Coddington and Coggeshall aligned themselves with Easton; Harding, Clarke, and Lenthall opposed him. New churches were established, even though many Rhode Island settlers had never been released from their ties to the Boston church. An "irregular" Congregational church existed in Newport as early as 1640, and a Baptist church was founded there by John Clarke in 1644. Even individual churches were not able to contain the divisive tendencies in their midst, and at least one church was dissolved due to quarrels that erupted within its own membership.³¹

It was becoming increasingly obvious that the cause of order and stability could best be served if the colony's affairs were conducted on a secular basis, if residents could be judged solely on the basis of their loyalty and obedience to the government. As John Clarke pointed out,

... this outward forcing of men in matters of conscience towards God to believe as others believe, and to practice and worship as others do, cannot stand with the Peace, Liberty, Prosperity, and safety of a Place, Commonwealth, or nation.

And so, on March 16, 1641, three years after the settlement of Portsmouth and two years after the founding of Newport, Aquidneck finally proclaimed its belief in the concept of religious liberty.³²

This attempt to remove the government from involvement in religious controversy was still tentative, and by no means represented a policy approaching complete separation of church and state. Indeed, the General Court's first decision required a religious oath for newly elected officers. The government also ordered that "none be accounted a Delinquent for *Doctrine*" but quickly qualified this resolution by excluding from such protection any doctrine "directly repugnant to ye Government of Lawes established." While this proviso would have little practical effect, it surely indicated that its supporters were reluctant to accept the full consequences of their own actions.³³

Aquidneck's treatment of Samuel Gorton and his followers also suggests that its members were reluctant to countenance all shades of religious belief. In 1641, Gorton was whipped and imprisoned by the court at Newport, while his closest followers were all disenfranchised. Gorton subsequently left the island, but when he returned to his sanctuary in 1644, the government did not welcome him with open arms. Instead Coddington assured Winthrop that Gorton was "here against my mind,

³¹ Thomas Lechford, *Plain Dealing: Or News from New England* (New York, 1969), 91, 92n, 94; Chapin, *Documentary History*, II, 85; Winthrop, *Journal*, II, 39, 41; *Recs. of R.I.*, I, 104; Coddington to Henry Vane, August 24, 1640, Coddington to William Bradford, June 30, 1640, *Itineraries and Correspondence of Ezra Stiles, 1775-1794*, Franklin B. Dexter, ed. (New Haven, 1916), 134, 368; Rev. Morgan Edwards, "Materials for a History of the Baptists in Rhode Island," *R.I. Hist. Soc., Colls.*, VI (1867), 324.

³² Clarke, *Ill Newes*, 108; *Recs. of R.I.*, I, 113.

³³ *Recs. of R.I.*, I, 111, 113. That the General Court, in 1641, found it necessary to declare that the "Law of the last court concerning libertie of conscience in point of Doctrine is perpetuated" further indicates this hesitance. *Ibid.*, 118.

³⁴Coddington to Winthrop, August 1641, in Stiles, *Itineraries*, p. 373; Lechford, *Plain Dealing*, p. 95; Gorton, *Simpli-cityes Defence*, 235.

³⁵Lechford, *Plain Dealing*, 95.

³⁶*Recs. of R.I.*, I, 233.

³⁷*Ibid.*, 273, 327, 329, 343, 344, 361, 364.

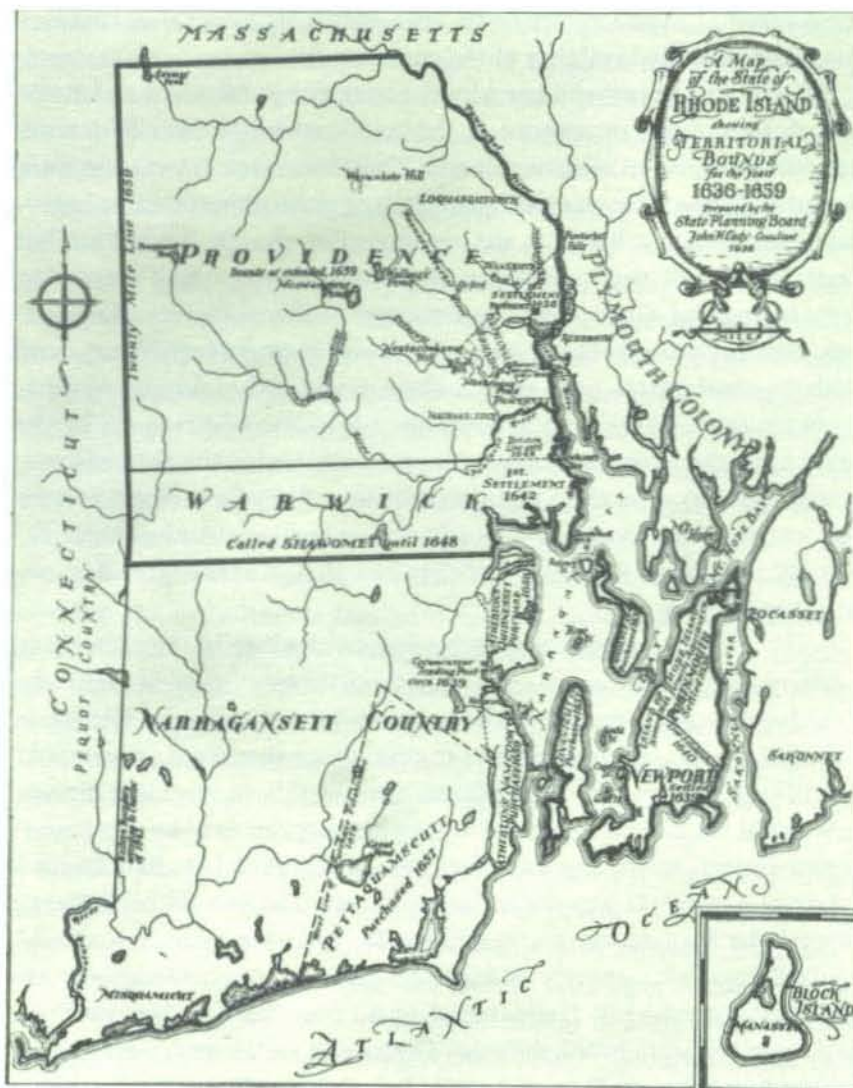
³⁸*Ibid.*, 374–377.

so shall he not by me be protected," and still later he told the Governor that Gorton and his followers "are to me as ever they have been, their freedom of the Island is denied and was when I accepted of the place I now bear."³⁴ In part, Coddington's objections to Gorton were politically motivated. He feared the consequences of Gorton's attack on the authority of the Rhode Island government, and felt that his presence might well exacerbate the colony's already tenuous relations with Massachusetts Bay. But there is little doubt that underlying the more pragmatic rationalizations Rhode Island authorities had for persecuting Gorton, their antipathy toward his religious beliefs influenced their response to his presence.³⁵

It was not until the island had been united with the mainland by the 1644 patent, creating "the Island of Rhode Island and Providence Plantations," that the settlers of Portsmouth and Newport began to evidence any real commitment to their affirmed policy of religious liberty. Ironically, religion was almost the only matter about which the colonists did *not* quarrel during the interregnum period. In secular affairs the picture was bleak. William Coddington, for reasons that remain mysterious, quickly opposed the patent and obtained a separate one for himself; and by November 1651, Newport and Portsmouth had "fallen off" from the original patent. Whatever Coddington's motives might have been—a desire for power or his continued dislike of Samuel Gorton, who took an active part in the new government, are both possibilities—religion seems to have had nothing to do with his quarrels with the mainland or his distaste for the 1644 patent.³⁶ By 1654, Portsmouth and Newport had reunited with the mainland and by 1656 even Coddington was willing to accept the united government. But the colony's troubles were by no means at an end. Ongoing quarrels with Massachusetts and Connecticut over boundary lines and Indian policy continued to trouble both the mainland and the island, and the colony's own inhabitants, particularly William Harris of Providence, became embroiled over questions of property rights and land claims.³⁷

Religious freedom was put to its first real test with the arrival of the Quakers in the mid-1650s. The Quakers did not give the Rhode Island government much cause for alarm, but they used the colony to launch missionary forays into Massachusetts, causing that colony untold grief. Massachusetts pressured Rhode Island in every way imaginable in its efforts to drive the Quaker menace from America's shores, even threatening to cut off all trade until the Friends were pushed out of the area. But Rhode Island's inhabitants stood firm. They would, they said, do what they could "in all honest and contentious manner, to prevent the bad effects of [the Quakers'] doctrines and endeavors," and to make sure that they obeyed the civil authorities in all matters that affected the good order of the community. But they refused to do anything that would compromise the liberty of conscience of the Society of Friends.³⁸

Their response to the Bay Colony's request is revealing. They did not defend the righteousness of their policy of religious liberty but rather spoke to its practicality. Explaining that they had no law "whereby to



Detail from John Hutchins Cady's "A Map of the State of Rhode Island, showing Territorial Bounds for the Years 1636-1659," highlights the early development of Aquidneck Island. Courtesy of the Rhode Island Historical Society Library (RHi x3 855).

punish any for only declaring by words etc., their minds and understandings concerning the things and ways of God," they affirmed the folly of a policy of persecution:

We . . . finde, that in those places where these people afore said, in this colony, are most of all suffered to declare themselves freely, and are only opposed by arguments in discourse, there they least of all desire to come, and we are informed that they begin to loath this place, for that they are not opposed by the civil authority, but with all patience and meekness are suffered to say over their pretended revelations and admonitions, nor are they like or able to gain many here to their way; surely they delight to be persecuted by civil powers, and when they are so, they are like to gain more adherents by the conseyte of their patient sufferings, than by consent to their pernicious sayings.³⁹

Religious liberty was good because it helped keep the peace, while the

³⁹ *Ibid.*, 377.

⁴⁰Lechford, *Plain Dealing*, 94. J. C. Hurd noted, "their acknowledgement even if morally and politically justifiable, being in some sort a usurpation had no original foundation in public law." See John Codman Hurd, *The Law of Freedom and Bondage in the United States*, 2 vols. (Boston, 1858), I, 120n.

intolerance of Massachusetts was obviously instrumental in breaking down the order and stability of the community.

It is difficult to say when or why the colonists in Newport and Portsmouth fully came to approve of the implications of their first tenuous commitment to religious liberty. Their increased association with Roger Williams after 1644 was certainly of great importance in hurrying them toward a belief in the separation of church and state. That their policy, not the intolerance of Massachusetts, found increasing favor in England, where even Quakers were "suffered to live in England; yea, even in the heart of the nation" was surely important. The quarrel with Massachusetts over the Quakers was another factor allowing them to see the value of their new policy. Whatever the reasons, by the mid 1650s, the island colonists were as committed to the policy of religious liberty as were their mainland cousins. They had arrived at their commitment in a slower and more hesitant fashion than had "true believers" like Roger Williams, but they had arrived at the same destination nonetheless.

In the end, it was not the Hutchinsonian ideology of the indwelling spirit or Roger Williams's tracts on "soul liberty" that brought the Aquidneck settlers to accept the policy of religious liberty. Rather, it provided a pragmatic solution to the problems that would eventually face all the settlers who found themselves in this increasingly diverse new world. That such a solution was so quickly achieved by the Aquidneck settlers is not surprising. Until 1644, it was as close to John Locke's "state of nature" as any American settlement ever would be. Existing beyond the boundaries of any other colony, having claims to no recognized basis of authority, holding no grant or charter from any established government, lawmakers had no legal right to impose their will upon the island's inhabitants. Theirs was, as Thomas Lechford so contemptuously put it, a "pretended civil government of their own erection."⁴⁰

Because the state could not legitimately demand obedience, it had to rely almost completely on a consensus of opinion from its members, agreement that could be achieved only in matters dealing with land divisions or economic policy, not in the area of religion. At Pocasset and again at Newport religious conflicts appeared from the start, quickly invading the political scene (as they had so recently done at Boston) and threatening to destroy the entire social order. As religious diversity proliferated, neither the state nor any one church could assume leadership or command conformity. Diversity appeared earlier on Aquidneck than it did elsewhere, and its consequences had to be dealt with quickly and decisively if the settlements were to survive.

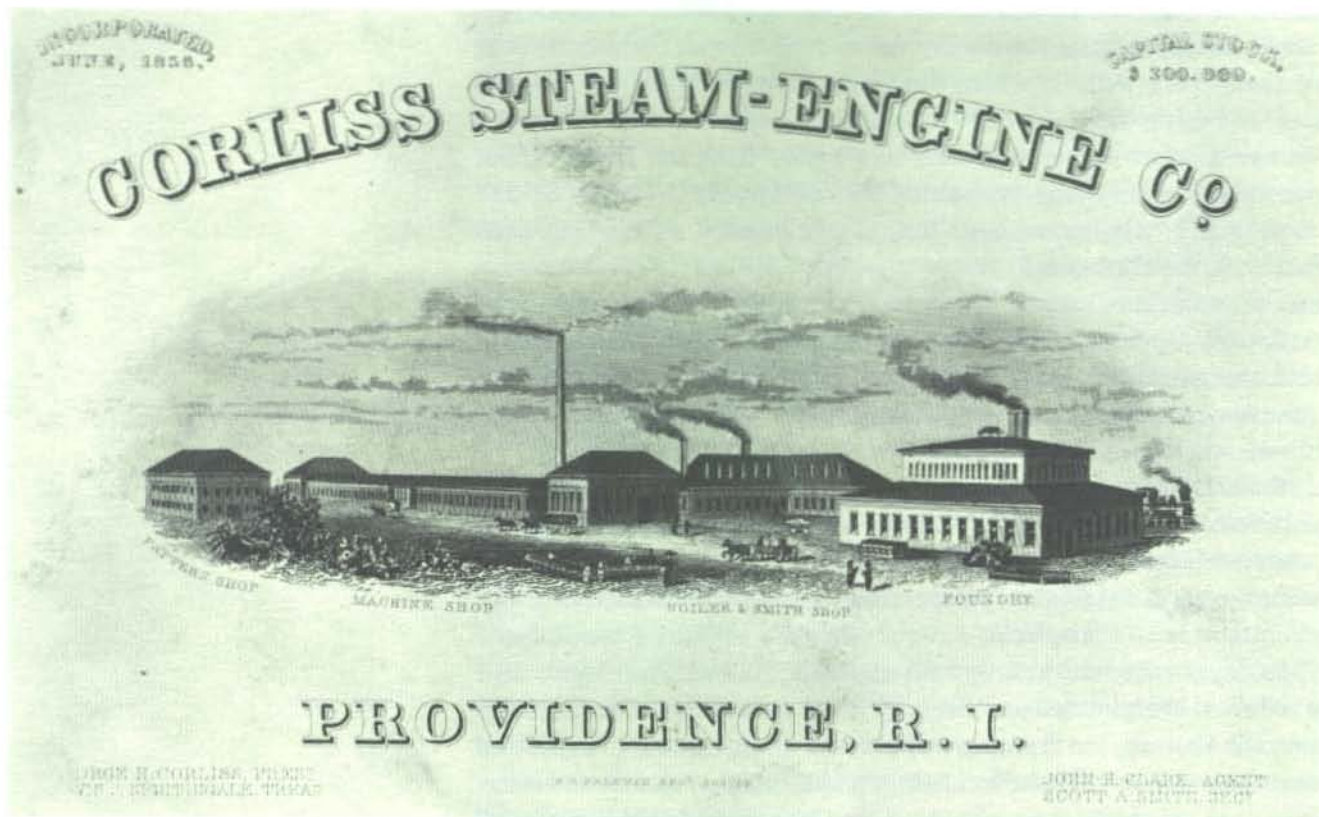
Survival really was at the heart of the problem. By the time they had arrived at Newport, many of the town's inhabitants had already been driven out of two communities, two apparently secure environments, at least partly because of religious controversy. Now a third promising community was being threatened by strife. The only way to halt what

seemed to be a perpetual process of disintegration was to remove governmental interference in matters of religious opinion, leaving it free to concentrate on obtaining the outward obedience and loyalty of its inhabitants. Only then could social control, order, and peace be maintained.

Reverend John Clarke stated the case well when he insisted that religious liberty was the only policy conducive to the "prosperity and safety of a State or Nation." By guaranteeing each person the security in which to worship God as his conscience dictated, it became possible to secure the willing support for the government from the holders of all shades of opinion. "By this means," Clarke maintained, "shall all parties be deeply obligated to the utmost of their lives and estates, to bear up that power, without which they cannot expect to enjoy peace, liberty, and safety themselves." Government's responsibility was to the "outward man." It has to protect its peoples' lives and property, and punish any person who threatened the community's security by disobeying any "wholesome law." But, Clarke insisted, it was "inconsistent with the civil peace, liberty, prosperity, and safety" of a community to attempt to control the consciences of its citizens. And so the settlers of Aquidneck joined hands with the inhabitants of the mainland and embarked upon "a lively experiment, that a flourishing civil State may stand, yea, and best be maintained" when it provided "a full liberty in religious concernments."⁴¹

Rhode Island was vilified for this experiment, for it was hardly acting as befitted the Puritan view of a godly community. The freemen of the island settlement were sacrificing sacredly held religious practice in the interests of a stable and prosperous city. They were discovering that a common religious opinion was not necessary to unify a community. Their experience foreshadowed the conditions of the future more than it reflected their immediate past, and it was a future that the Coddingtons and Eastons, the Brentons and Clarkes would no doubt have found unattractive. For, with the erection of a wall between church and state, they were preparing the way for a society where it would become increasingly possible to subjugate religion to secular interests. Those pious leaders of Rhode Island knew not what they had done. Their actions belied their words, even their intentions, as they took a long step from the medieval to the modern world.

⁴¹Clarke, *Illl Newes*, 5, 108, 112, 113.



This engraving of Corliss's manufacturing facilities was featured on a company trade card. Courtesy of the Rhode Island Historical Society Library (RHi x3 5079).

From Watt to Allen to Corliss: One Hundred Years of Letting Off Steam

Charles Hoffmann and Tess Hoffmann

The President [Ulysses S. Grant] having taken hold of the valve-lever of one engine and the Emperor [Dom Pedro] of Brazil of that of the other, both gave the turn simultaneously; steam was on; the great walking-beams began to ascend and descend; the engine was in motion; eight miles of shafting and hundreds of machines of all descriptions were in operation, and the International Exhibition of 1876 was at that instant thrown open to the world.¹

The apex of the upstroke for the age of steam occurred shortly after 1 P.M. on May 10, 1876, in Philadelphia when the Corliss steam engine, manufactured in Providence, began operation in Machinery Hall. It had been a little over one hundred years since Scottish inventor James Watt obtained his first patent on a steam engine in 1769. It was a century of phenomenal progress in the efficiency and performance of steam engines. For example, the horsepower of Watt's larger commercial engines was measured only in the hundreds. The Corliss engine at the International Exposition stood forty feet high, weighed seven hundred tons, and was capable of fourteen hundred nominal horsepower and twenty-five hundred maximum. The horsepower of steam engines in the largest steamships of the mid-nineteenth century was measured in the tens of thousands.

For the inventors, it was also a century of litigation regarding the patent rights and credit for each new breakthrough in steam technology. Claims and counterclaims reached their apex in 1870 when George Henry Corliss (1817–1888), inventor and president of the Corliss Steam Engine Company, received the American Academy of Arts and Sciences' Rumford medals for "the abolition of the throttle valve of the steam engine and the transference of the regulation by the governor to a system of induction valves of your own invention."² Zachariah Allen (1795–1882), Rhode Island textile manufacturer and inventor who considered himself the originator of a method to abolish the throttle valve, publicly denounced Corliss for accepting the honor and thus taking credit for "the success of others who preceded you in actually achieving what the President [of the Academy, Dr. Asa Gray] ascribed solely to your skill."³ This dispute was part of a simmering battle between the two inventors for the right to join James Watt as an innovator of the first magnitude, one who, in Gray's words, had contributed to the "material good of mankind." Rhode Island figured prominently in both the devel-

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¹J. S. Ingram, *The Centennial Exposition* (Philadelphia, 1876), 97.

²Dr. Asa Gray, "Address of the President," American Academy of Arts and Sciences meeting, Boston, January 11, 1870. Two medals, one of gold and a duplicate of silver, as specified in Count Rumford's bequest of 1796, were given to the recipient of the award. Only four others before Corliss had been awarded the medals.

³Zachariah Allen, letter to George Corliss dated February 3, 1870, and published in the *Providence Journal*, February 10, 1870.

⁴Watt's patent application as quoted in Robert H. Thurston, *A History of the Growth of the Steam Engine*, (1878. Reprint ed.; Ithaca, N.Y., 1939), 100.

⁵*Ibid.*, 137-138.

opment of steam technology and this sometimes acrimonious debate concerning patents and credit for the inventions that fueled the age of steam.

Unlike his later inventions, James Watt's original plan for "lessening the consumption of steam, and consequently fuel, in fire engines" was a patent of principle, couched in general terms rather than as a specific apparatus with working drawings. The heart of Watt's original steam engine was the separate condenser, which achieved a considerable increase in efficiency, and consequently a lessening of the fuel consumption, over the best "fire engine" of his day, the Newcomen engine. Watt's design, however, despite its improvements over any previous engine, did not use high-pressure steam even though his patent application claimed as one of the principles of his method that "I intend in many cases to employ the expansive force of steam to press on the pistons, or whatever may be used instead of them, in the same manner as the pressure of the atmosphere is now employed in common fire engines."⁴

More vexing to Watt was that despite his knowledge of its general principles, which gave him a virtual monopoly on the commercial exploitation of the steam engine, his patent did not specify a method by which the reciprocating motion of the engine could be converted into a rotating one. He returned again and again to the idea of a circular steam engine (it seemed to haunt him), but he never succeeded. In 1780, Matthew Wasborough and his associate James Pickard obtained a patent for such a method by the simple device of a crank, gear wheels, and counterweight. Although convinced that the idea had been stolen from him by an employee, Watt never challenged Wasborough and Pickard, dissuaded by the vulnerability of his own patent monopoly and because the principle, if not the use, was commonly known from the potter's wheel and foot lathe. Watt later acknowledged that Wasborough had recognized the *importance* of using a flywheel to convert reciprocal motion into rotating motion, and he paid Wasborough a royalty to use it in his own device, an epicyclical gear method patented in 1781.

Watt was proudest of his invention of the double-action or parallel motion steam engine in which the steam acted on both the upper and lower sides of the piston alternately, doubling the engine's power. Yet even this triumph was tainted because he believed that he had been driven to taking out the patent to prevent "plagiarists and pirates" from profiting from his inventions. Watt successfully prosecuted Jonathan Hornblower by claiming that the second cylinder of Hornblower's "compound" engine was actually a separate condenser and, therefore, an infringement on his early patent. Hornblower was imprisoned because he could not pay the fine and royalties.⁵

James Watt died in 1819 and was enshrined in Westminster Abbey as an original genius who, in the words of the epitaph inscribed on the pedestal of his monument, "enlarged the resources of his country, increased the power of man, and rose to an eminent place among the most illustrious followers of science and the real benefactors of the

world." In the early decades of the nineteenth century, a new generation took up the quest for greater steam efficiency, but only Richard Trevithick's high-pressure steam engine, based on Watt's previously patented principle, could be considered a major step forward.⁶

No successor to Watt would emerge until later in the century when Allen and Corliss battled to be admitted into the pantheon of inventors. Their battleground would be the throttle valve upon which Watt's and all steam engines prior to 1833 depended. This valve literally throttled or choked off steam from the boiler in order to regulate the steam pressure acting upon the piston and thereby preventing it from being driven too fast and hard at the end of the stroke. Watt had discovered that the most efficient cutoff point occurred when the piston was half-way through its stroke; this halved the steam consumption of previous engines, but it still wasted potential power because of the need to choke off the boiler's steam pressure.

Although Zachariah Allen was not a builder of steam engines, he had been trained as a scientist and engineer. Allen was a dilettante only in the best sense and sought constantly to improve the machinery in his Rhode Island textile mills. He was one of the first manufacturers in the United States to introduce the power loom in woolen mills, and he developed a system known as "The American System of High-Speed Belting" which increased the velocity of the shafts and bands from 80 to 160 and, later, to greater than 600 revolutions per minute. As part of his investigation for *The Science of Mechanics* (1829), a technical manual for mechanics and manufacturers which included a chapter on "the original invention and improvements of the steam engine," Allen travelled to the Boulton and Watt steam works at Soho, Birmingham, England. His investigation made him an authority on steam technology, and in 1833, while preparing a public lecture on the invention and improvements of the steam engine, he conceived of a variable cutoff valve controlled by the governor.⁷

This idea seemed to Allen to be so important that he took time off from his manufacturing business to work on transforming it from theory to practice. To open the valve at the beginning of each stroke, Allen attached an iron cam to each side of the steam engine's main shaft. These wedge-shaped cams allowed the valve to open only for an instant as steam passed through to the piston. By connecting the action of the cams to that of the governor, Allen achieved the desired full pressure of steam acting on the piston "through a longer or shorter portion of each stroke, perfectly regulated by the centrifugal force of the revolving balls."⁸

It is one of the ironies of Allen's participation in the development of the steam engine that he and New England's textile manufacturers remained committed to water energy rather than steam to power their mills. In fact, Allen's experiments with the variable cutoff valve were conducted at the Wadsworth Steam Engine Company in Providence, for he had no steam engines at his own facilities. Despite the greater effi-

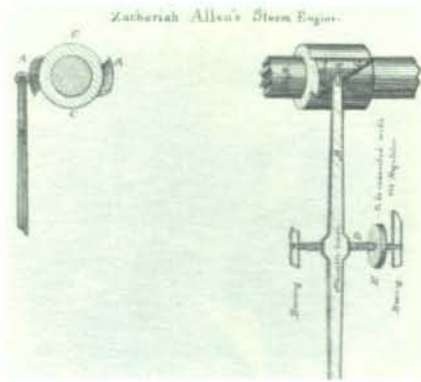


Zachariah Allen, 1795–1882.
Courtesy of the Rhode Island
Historical Society Library (RHi
x3 5079).

⁶Richard Trevithick (1771–1833), an English inventor, developed an engine in 1802 capable of utilizing steam pressure at one hundred pounds to the square inch. Cf. L. T. C. Rolt, *James Watt* (London, 1962), 27. Also Thurston, *Growth of the Steam Engine*, 159–160.

⁷Zachariah Allen, "Sketch of the life of Zachariah Allen written at the special request, and for the gratification of his dear daughter, Anna C. Allen, now Mrs. Ely," *Zachariah Allen Papers*, Rhode Island Historical Society, 37.

⁸*Ibid.*, 40.



This line drawing provides details of Zachariah Allen's innovations. Courtesy of the Rhode Island Historical Society Library (RHi x3 5084).

⁹*Dictionary of American Biography*, ed. Allen Johnson and Dumas Malone, 20 vols. (New York, 1928–1936), iv, 441.

ciency that Allen achieved, water power remained less expensive than the coal needed to heat steam engines. While Allen's cutoff valve was, in a sense, before its time, Corliss's innovations came at the right moment, during the 1850s and 1860s when New England's demand for steam power was at its height. The Wadsworth Steam Engine Company went bankrupt; Corliss, Nightingale and Company and its successor, the Corliss Steam Engine Company, flourished. Significantly, Allen's patent on the cutoff valve expired in 1848, the year Corliss began his successful career as a steam engine manufacturer.

George Corliss was born in Easton, New York, the son of a country doctor. Unlike Allen, Corliss was not a college graduate learned in science and mechanics, and the closest he came to textile manufacturing was working in a factory store in Greenwich, New York. Yet he came to Providence in 1844 to secure financial backing for a machine to sew heavy harness and boot leather, which he had invented in his spare time and patented in 1843, three years before Elias Howe's domestic sewing machine. Corliss did not obtain the capital that he sought, but despite his lack of training in either the theory or practical development of the steam engine, he was offered the job of draftsman for steam engines in the machine shop of Fairbanks, Bancroft and Company. In three years he was head of his own firm, Corliss, Nightingale and Company, and, in 1848, Corliss built the first steam engines embodying his improvements, which were patented in the following year. This patent led Corliss to be castigated as a pirate of the inventions of others and, at the same time, praised as one who "is ranked equally with Watt in the development of the steam engine" by the "technical world."⁹

The truth lies somewhere between the steam and exhaust port of these assertions. Corliss's accomplishment was to modify and combine successfully inventions by Allen and another inventor, Frederick E. Sickels. According to the patent, his method of regulating the motion of steam engines was essentially the same as Allen's except that the latter's drawings did not show the kind of regulator he had in mind. Corliss refined the cam arrangement in relation to the regulator and combined this feature with the method of operating the slide valves. He also modified the drop cutoff or poppet valve, also known as the detachable valve gear, developed by Sickels in 1841. Sickels had devised a set of steam valves in combination with the "beam motion" which detached at any desired point in the piston's stroke. The "detached" valve fell into its cushioned seat to cut off the flow of steam. Corliss adapted Sickels' detached cutoff valve to the slide valve (fixed or hinged at one end rather than detachable), and eventually improved the slide valve arrangement by making its motion circular. Corliss adapted other Sickels innovations as well. To prevent the detached valve from slamming into its seat, Sickels used a water dashpot; Corliss employed an air dashpot to cushion the weight that dropped to close the valve. In effect, Corliss combined the best features of the improvements made by Allen and Sickels, refined them, and claimed them as his own. In a legal sense

they were his, for no one had brought together these innovations in the same steam engine before.

The long legal war over the patent rights (Corliss did most of the suing, claiming patent infringements) came to a climax in September 1860 at the United States District Court in Hartford. Corliss claimed that Wheeler and Wilson Manufacturing Company, located in Bridgeport, Connecticut, had infringed on his patent rights. Both Zachariah Allen and Frederick Sickels appeared as witnesses for the defendant. Although Allen and Sickels sought acknowledgment for their contributions, it was not a confrontation from which an *Inherit the Steam* could be fashioned. This legal case would be decided on narrow grounds in light of various decisions in the courts during the previous ten years, some of which had been decided in Corliss's favor, and some not. Depending on the judge's interpretation of Corliss's patent, the defense would either deny the validity of the patent itself or, if it was ruled valid, its infringement. The testimony was highly technical, focusing on who dropped what valve first. For example, at the very beginning of his testimony, Sickels was asked by defense counsel about the air dashpot:

Well, I would say that in constructing these machines and getting them in shape, the directions I gave was to grind the plungers in. That is not necessary for the use of water, to grind them in, but it is for the purpose of insuring that the fitting is not had by the workman—as a sufficient direction to insure an accurate fit for the water. When so fitted they would then be sufficiently tight to work on air. It was my custom, when I saw them in that shape, to try them. If they worked on air, I knew they were tight enough for water, and I used to expect to use water in them.¹⁰

To Zachariah Allen the opportunity to testify was nothing less than a chance to vindicate himself as the original inventor of the automatic

¹⁰Circuit Court of the United States in Equity, "Defendant's Testimony," George H. Corliss vs. The Wheeler & Wilson Manufacturing Company (New York, 1860), 11.



**CORLISS' STEAM-ENGINE
PATENT.**

Saves from 30 to 50 per cent of fuel.
Combines Regulator with Cut-off.
Uses entire Boiler pressure.
Gives perfect speed under all
possible variations of resistance.
Provides for free exit of steam.
Has been in successful operation since 1842.

These Engines of 300 H.P. have
been built to order in 60 days.

Improved BOILERS.

*GEARING cut with Corliss'
patented Machinery.*

SHAFTING &c.

Another trade card extols the efficiency of the company's products. Courtesy of the Rhode Island Historical Society Library (RHi x3 5080).

¹¹Zachariah Allen Diary, September 25, 1860, Zachariah Allen Papers, Rhode Island Historical Society.

¹²*Ibid.*

¹³Cross Examination of Zachariah Allen, "Defendant's Testimony," 144–146.

cutoff valve connected to the regulator. On September 25, 1860, having testified earlier in the day, Allen recorded in his diary: "Although this invention proved profitless from being about 20 years ahead of the demand for Steam Engines, yet this very fact entitled the early inventor to assume credit for anticipating this great improvement in the operation of the Steam Engine." The way in which he had become a witness seemed dramatic and fortuitous:

The defendants in this suit were unable to find any account of this application of the Regulator in any published work in England and France, and were in despair, when a lawyer in Boston sent them information that a previous Patent to Z. Allen in 1834 covered the whole case. Their lawyer came to me in extacy at this unexpected discovery, as he said, that a person in his own town [Providence] had accomplished what he had been seeking every where else.¹¹

Such last minute discoveries form the stuff of courtroom drama. Indeed, Allen wrote in his diary that "the production of this old Patent, signed by General Jackson [Andrew Jackson, then President] produced considerable sensation in Court, and the Judge took the document to see the autograph of Gen. Jackson as did some of the lawyers also." It seemed to Allen a moment of triumph and vindication: "To me it was some little satisfaction finally to find an invention that had cost me considerable time and money finally appreciated as one of the most important improvements made in the Steam Engine since the time of Boulton & Watt."¹² However, cross-examination under oath produced a different result than that envisioned by the disgruntled inventor. Allen, himself a lawyer (although he never practiced), answered the plaintiff's lawyer cautiously:

Q. When did Mr. Corliss' partner [Nightingale] borrow your patent?
A. Probably two or three years ago [1857 or 1858]—a short time ago. . . .

Q. Could you have got along without using steam-valves in that plan?

A. Yes, sir.

Q. Could you have thrown them away and still used your engine?

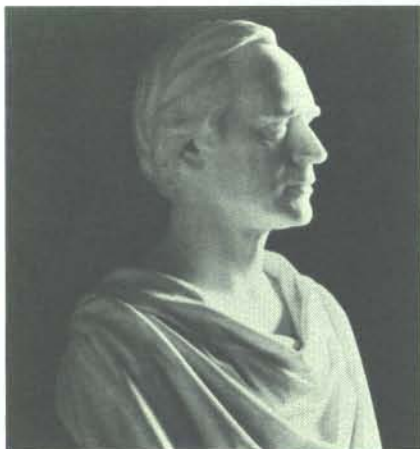
A. It was used without it.

Q. Do you mean to say your steam-valves were always left open, and never at any time closed?

A. They were opened and closed, but they did not regulate the admission of steam. They gave full expansion of steam to the cylinder, as if not there. . . .

Q. As I understand the description, you say the difference between that arrangement and the one reduced to practice on the machine was, you threw away the intermediate screw, by means of which you screwed the valve-toe on the cam?

A. Yes, sir.¹³



George Henry Corliss, 1817–1888. Courtesy of the Rhode Island Historical Society Library (RHi x3 5081).

Whatever patriotic or political thoughts ran through the minds of the sitting justices at the moment they saw Andrew Jackson's signature on Allen's patent, they were not impressed by the defense counsel's arguments or the testimony of its star witnesses. On August 13, 1861, the court upheld the validity of all of Corliss's patents, including number 763 which pertained to Allen's patent. The judges decreed "THAT THE DEFENDANTS [Wheeler & Wilson Manufacturing Company] HAVE INFRINGED SAID FOUR SEVERAL LETTERS PATENT . . . AND THAT THE COMPLAINANT [George H. Corliss] IS ENTITLED TO HAVE A PERPETUAL INJUNCTION TO RESTRAIN THE DEFENDANTS."¹⁴ Allen did not mention the decree in his diary, but obviously his sense of injustice was not appeased. The whole matter simmered for ten years and came to a head in February 1870, when Corliss received the Rumford medals because "no one invention since Watt's time has so enhanced the efficiency of the steam engine, as this for which the Rumford medal is now presented to you."¹⁵

Allen's throttle valve of pride was wide open and the pent-up grievance rushed out forcefully. He wrote a letter to Corliss and published it in the *Providence Journal* on February 10, 1870, "expostulating with him for accepting the honorary presentation of the Rumford Gold Medal for the improvement of the Steam Engine which I accomplished 15 years before his patented claim." This letter, according to Allen, "excited much comment on his [Corliss's] shameless acceptance of an honor he is not entitled to."¹⁶ It also excited a response from Francis C. Sewell of Boston, a member of the Academy's committee that had awarded Corliss the Rumford medals. Having read Allen's letter in the paper, he requested "any statements I wished to have laid before the Committee of the Academy of Arts and Sciences, and proposing to see that they were duly considered so that no injustice should be done in the attempt of the President of the Society to honor the invention."¹⁷

According to Allen, Asa Gray, "has become uneasy for having hastily conferred the honorary Medal without a due examination, and has manifested a disposition to make amends for his error by some fresh action."¹⁸ Allen's diary indicates that the Academy's only action was to request more information: "March 4th, 1870. Mr. Francis C. Sewell and Asa Gray, President of the Academy of Arts & Sciences write me to day, in relation to the injustice of ascribing the abolition of the throttle valve to Mr. Corliss, and requesting further particulars of the invention." It was the last mention Allen made of the matter in the diary except to record at the end of the entry for that day that "for all future time this improvement [the abolition of the throttle valve] will connect my name and memory with the history of the Steam Engine."¹⁹ The Rumford gold medal was never returned by Corliss or rescinded.

Nonetheless, Allen had cause for confidence that day because at the same time a congressional committee on patents rejected Corliss's petition for a seven-year extension of his already renewed patent. Although Allen was not a remonstrant, his published letter figured prominently

¹⁴ Circuit Court of the United States for the District of Connecticut, George H. Corliss Complainant in Equity vs. The Wheeler & Wilson Manufacturing Company, Defendants, *Opinion of the Court*, August 13, 1861, 7. Capitalized in original.

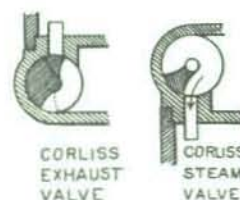
¹⁵ Dr. Asa Gray, "Address of the President."

¹⁶ Allen diary, February 10, 1870.

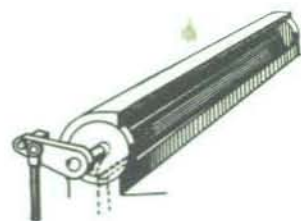
¹⁷ *Ibid.*, February 20, 1870.

¹⁸ *Ibid.*

¹⁹ *Ibid.*, March 4, 1870.



The Corliss steam engine: cross section of valves. From The Life and Works of George Henry Corliss (New York, 1930). Courtesy of the Rhode Island Historical Society Library (RHi x3 5086).

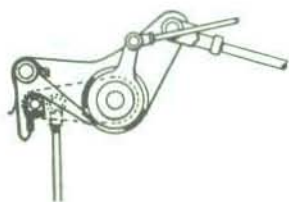


The Corliss steam engine: admission valve in its housing. From The Life and Works of George Henry Corliss (New York, 1930). Courtesy of the Rhode Island Historical Society Library (RHi x3 5086).

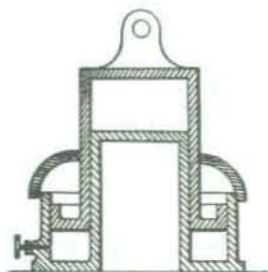
²⁰George H. Corliss, *Relative to the Extension of his Patent for Improvements in Steam Engines*, "Argument of the Remonstrants against the extension of the Monopoly. . . ." (Washington, 1870), 5–23. Capitalized in original. Renewal of patents was under the jurisdiction of the Senate Committee on Patents. Corliss was applying for an extension of his 1849 patent which had already been renewed twice (1851, 1859).

²¹"Zachariah Allen and the Corliss Patent, Extracts, Relating to the Claims of Zachariah Allen, Taken from the Reply of George H. Corliss to the Printed Argument of Benj. F. Thurston, Counsel for the Remonstrants, Before the Senate Committee on Patents," Corliss Papers, Box 7, n. d., John Hay Library. Italics are in original.

²²*Ibid.*



The Corliss steam engine: crank arm attached to the admission valve-stem. From The Life and Works of George Henry Corliss (New York, 1930). Courtesy of the Rhode Island Historical Society Library (RHi x3 5086).



The Corliss steam engine: a common form of the dash pot. From The Life and Works of George Henry Corliss (New York, 1930). Courtesy of the Rhode Island Historical Society Library (RHi x3 5086).

in the argument against Corliss's continued monopoly. The niceties of legal language were dropped in the political infighting: "ABSURD CLAIM. . . . GROSS ERRORS. . . . PREPOSTEROUS ASSUMPTIONS PIRATED ALLEN'S AND SICKELS' INVENTIONS, AND . . . STOLE THEIR BRAINS. . . . CORLISS' RUMFORD MEDALS REALLY BELONG TO ZACHARIAH ALLEN—WILL CORLISS TRANSMIT THEM TO HIM?"²⁰

In response, Corliss ridiculed Allen by turning the latter's sworn testimony from ten years earlier against the remonstrants, other steam engine builders who obviously would have a vested interest in denying Corliss an extension of his patent rights. They claimed he had pirated Allen's invention back in 1847 when "he had before his eyes the Zachariah Allen patent" while working on his first engine. Under oath, however, Allen had admitted at the 1860 trial that he had given a copy of the patent to Corliss's partner in 1857 or 1858, not ten years earlier, and certainly long after Allen's patent had run out and Corliss had built his first engine. Corliss claimed "the recent letter of the said Allen, the tone of which is so insulting in its arrogance, so puerile in its attacks upon my personal reputation, and so disrespectful to the American Academy of Arts and Sciences, whose history and fame are beyond the reach of such vulgar detraction" is proved false by the fact "there is a structure known as the 'Corliss Engine' in all parts of the world where manufacturing industries are known" whereas Allen's attempt to control the power of steam without wasting its strength was "utterly abortive." The "abstract idea of applying the regulator to the steam valves" was an old one that even "the immortal Watt" had tried to solve and couldn't even though he tries "in a more complete and practical manner than was done by this crude affair of Allen's." The Rumford medals were awarded him for his invention "not as an *abstract theory*, but as a *practical improvement* in steam engines."²¹

The self-educated, practical engineer's scorn for the college-educated, theoretical man of science; the self-made inventor-capitalist's pent-up resentment against the dilettante whose inherited wealth had enabled him to dabble in the science of mechanics; all the successful outsider's inverted snobbery against the native-born New Englander who was a bankrupt businessman at the time of the trial, but who was old family; it was all out in the open. Corliss combined ridicule, scorn, and resentment in his final statement: when Allen needed a steam engine for his cotton mill in 1866, "Instead of building an engine containing his alleged invention, he imported one from England. And what is its mode of regulation? It is simply by the old *throttle-valve* attached to the 'ball regulator.' We thus have his *recent* appreciation of the value of the *invention* which has practically effected 'the abolition of the throttle-valve.'"²²

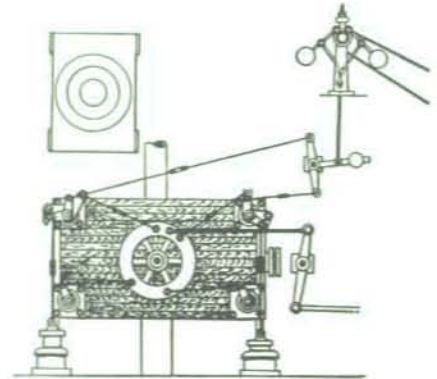
The patent's expiration profited Corliss's fame, if not his business. The "Corliss valve" and the "Corliss Engine" were copied and sold all over the industrial world. Although Corliss's contribution to the improvement of the steam engine was substantial, it was not exclusive,

any more than Watt's contributions. Yet it is fitting that Corliss was awarded the Rumford medals. Even Allen in his letter admitted that Corliss had "originated a rotary valve" to effect the abolition of the throttle-valve; all he asked was that the contribution of others also be acknowledged. In the end Corliss's engine, not any other, became the symbol of the age at the Philadelphia Centennial Exposition.

Zachariah Allen was among the nearly ten million visitors to Philadelphia, and when he returned to Providence, he reported his observations to members of the local Franklin Society, fittingly, the same organization he had addressed in 1833. Although civic pride in Rhode Island's role in the development of the Corliss engine required laudatory comments, Allen did note that its forty-inch cylinders and ten-foot stroke were less than that of the great engines of the steamers *Providence* and *Bristol*. Still, Allen and Corliss shared the prevailing belief that progress runs by machinery and, as Allen noted, "without the aid of the steam engine, electric telegraph and printing press, this grand celebration could not have been accomplished. The old castles would still have retained their piratical barons and petty tyrants, and the dark ages would still have continued the abject servitude of boors and vassals."²³

Even as Allen spoke, the apex of the age of steam was passing, its down-stroke begun. Thomas Edison opened his first industrial research laboratory at almost the same moment that President Grant and Emperor Dom Pedro were turning the valve levers to start the Corliss Engine. The accolades and litigation were passing to a new generation of inventors.

²³"Ten Days at the Centennial Exhibition," report of a paper read to the Providence Franklin Society, May 30, 1876, *Providence Journal*, pasted in Allen's diary.



The Corliss steam engine: Corliss valve gear. From The Life and Works of George Henry Corliss (New York, 1930). Courtesy of the Rhode Island Historical Society Library (RHi x3 5086).

Book Reviews

The Coming of Industrial Order: Town and Factory Life in Rural Massachusetts, 1810-1860. By JONATHAN PRUDE. (New York: Cambridge University Press, 1983. xvii + 364 pp. \$34.50.)

Jonathan Prude's *The Coming of Industrial Order* is paradigmatic "new social history"—an approach that looks not to prominent men and institutions to rediscover the quotidian realities of life but to the experiences of ordinary men and women. Scholars who practice this sort of history have broadened the traditional focus upon trade unions and strikes by exploring workers' experiences within and outside the workplace. Some of them, inheriting a sociological tradition, have succumbed to the quantifiers' obsession with geographical or occupational mobility into, out of, across, and beyond the working class, and—while contributing to our empirical knowledge—have remained willfully ignorant of motives, causes, and the cultural implications of their data. Prude is not one of them. No single chapter of his book is devoted exclusively to a study of mobility. Rather he works in the tradition of those influenced by E. P. Thompson's subtle and powerful portrayal of class as a historical relationship and process in *The Making of the English Working Class*.

Prude examines the antebellum history of Dudley, Oxford, and Webster, three small Massachusetts communities that totalled about 5,000 people in the early 1800s and that began as typical early nineteenth-century textile mill towns. Hence his study does the unusual: it neglects the familiar Lowell, Waltham, Holyoke factory scene upon which scholars have lavished so much attention. Manufacturing in Prude's three factory villages was unlike these later mill cities: it first emerged in isolated areas around 1812; the owners were on the scene, not absentee overlords living in Boston; their manufacturing was not the integrated spinning-weaving process of the later mills. Nor did they employ unmarried daughters of Yankee farmers who were billeted in large boarding houses. Rather these early entrepreneurs drew upon entire families (with child labor prominent) and upon an extensive out-work system in which part-time pickers, usually farm women, prepared the raw cotton for spinning and handloom weavers, often skilled men, transformed mechanically spun woolen yarn into cloth. Both types of operatives, working in their homes, were essential to mill operations.

That the "Rhode-Island style"—the family style—organization of work remained dominant, at least until 1810, is understandable, given Samuel Slater's centrality to Southern Massachusetts textile mills. Slater's background is familiar and Prude offers sufficient details of his

English experience—the English system of education and apprenticeship, the paternalism of early Lancashire employers, the major features of these mills, and especially their industrial discipline—to explain practices and institutions that developed in early nineteenth-century American textile operations. Slater developed a far-reaching putting-out system, until he abandoned the outworking weavers in favor of the Waltham system of full-time operatives (mainly young women) working under the factory roof; his outwork cotton pickers would follow them. Thus did the process of early industrialization emerge, and with it the new technology, a semi-skilled machine workforce, permanent wage labor, the gradual erosion of employer paternalism, and employer-employee tensions, owing primarily to management's desire to maximize profits. Parallel developments occurred at the interstices of society itself, as a result of these economic changes: the waning of community cohesion owing to the growth of religious pluralism; residential dispersal, as population increased; a high rate of geographical mobility; a decline in the size of farm holdings; and a high rate of transiency among farmers' sons, as the emergence of new, non-agricultural enterprise pulled them from husbandry.

The entire narrative reflects a mastery of the material one cannot but envy. The nuances are never neglected, nor are complexities ignored. Emphasizing change, however glacial, as the only constant in the social fabric of both farm life and town society, Prude considers population shifts, occupational developments, and the industrial discipline encouraged by churchmen and sought by mill owners. And, for once, a labor historian does not give employers short shift. He describes how workers responded to the new regimen by blending obedience and deference with efforts to resist the managers and the rules that they made. Not pervasive militancy or solidarity, to be sure. But there was individualistic restlessness and protest—stealing, absenteeism, slowdowns, even sabotage on occasion, and at least one strike of skilled workers—as employees balanced continual employment with resistance to the "extra" demands made upon them.

Prude is hardly the complete convert to the Thompsonians and their emphasis upon cultural values. The values, perceptions, family life, community associations, cognitive systems of these textile workers are only noted incidentally. He does not seek to uncover the networks and socializing institutions of the Irish and French-Canadian immigrants, or to determine whether the bitter intra-Catholic divisions that appeared in other mill towns (as well as the widespread anti-Catholic nativism) occurred in his three communities. Nor does he speculate, as Thompson so richly does, on Methodist chapels as meeting places and spawning grounds for worker resistance, or the ideology of native-born craftsmen, or the practices and ideology of artisanal organizations, or their rituals and ceremonies—the symbolic content of "ideas" and "beliefs" and how these are woven into the very fabric of everyday life. He is more preoccupied with the morphology of early nineteenth-century mill villages, changes in the skills and the material conditions of labor.

But these are cavils. Prude has deepened our understanding of the powerful historical forces transforming the working-class world, their impact on husbandry, the entrepreneur, the skilled and unskilled, and their communities. He has brought us closer to an understanding of why a more militant and class-conscious labor movement did not emerge. And he has placed an important, richly detailed book before his professional colleagues and all interested readers—one so elegant, so readable, so richly detailed that we owe him a debt of gratitude.

University of Massachusetts, Amherst

MILTON CANTOR

Rhode Island: A Bibliography of its History. Edited by ROGER N. PARKS. *Bibliographies of New England History*, volume 5. (Hanover, N.H.: University Press of New England. 1983. xxxiv, 229 pp. \$30.00.)

Rhode Island: A Bibliography of Its History is intended to be a comprehensive inventory of the state's history for a wide range of uses and points of view. It lists 4,125 scholarly and popular works, primarily books, pamphlets, and articles, organized alphabetically by geographical divisions—state, county, and city or town. There is a comprehensive index that includes, with entry numbers, all authors, editors, compilers, subjects, and places. The placement of these entry numbers at the top of each page makes the work easy to use.

The decision to limit the bibliography to printed works written as history was a serious mistake. Several categories of works not included could have been useful to researchers: firsthand or eyewitness accounts, guide and travel books, and gazetteers. Noteworthy examples of what is missing include Mariana Tallman's *Pleasant Places in Rhode Island* (1893), Webb's *Railroad Gazetteer of 1869*, and S. S. Foss's *Statistics of Businesses on the Woonsocket Union Railroad* (1852). Two important diaries missing from the entries are Church's *Diary of King Philip's War* and *Two Quaker Sisters*, from the original diaries of Elizabeth Buffum Chace, one of Rhode Island's most important women, and Lucy Buffum Lovell, her sister.

A second category of omissions concerns Rhode Island's unique political history—boundary changes covering more than three centuries, from New England's settlement to the creation of West Warwick in 1913. It is likely that not all researchers are aware that certain Rhode Island towns are included in "out-of-state" works, particularly Massachusetts histories. Parts of Rhode Island were included, at various times, in the Plymouth Colony and in the towns of Rehoboth, Attleboro, and Mendon, and much of today's Fall River was part of Tiverton. Several works in this category include Fenner's, Fowler's, and Phillips's histories of Fall River, each with sections of Tiverton's early history; John Daggett's *History of Attleboro* (1894); John Metcalf's history of Mendon (1880); and Jewett's history of Worcester County (1879).

Many interesting and important accounts are also found in another category that has been overlooked; works on New England and beyond that feature specific accounts of Rhode Island, usually as a separate chapter. Such works as Alice Lockwood's *Gardens of Colony and State* (1931), the recently published *New England Mill Village*, Drake's *New England Coast*, and Wood's *The Turnpikes of New England* contain information about Rhode Island that is not found elsewhere.

Although newspapers are generally not included in the bibliography because they have never been completely indexed, several newspaper articles are cited in this work. There appears, however, to be a lack of judgment; in Tiverton, for example, the only newspaper article noted is a recollection of the 1938 hurricane, while important articles on Tiverton Heights, the menhaden industry, and several Sakonnet River bridges are not included.

Other works missed by the editor include Henry Adams's lengthy account of the Narragansett Planters in an 1886 Johns Hopkins series, *Rhode Island Yearbook* articles on "The Hudson Collection and Rhode Island's Prehistory," by Carol Barnes (1972) and Laurence Tilley's "The Red Bridge" (1971), and Theodore Sande's published thesis on the architecture of the Rhode Island textile industry. Oliver H. Stedman, South County's most prolific writer in recent years, is also given short shrift. Only a few of his many works are included and no reference is made to his five-volume collected works which date from 1978.

Because of Rhode Island's complex political geography and the lack of topical headings (agriculture, industry, religion, etc.), an introductory paragraph for each town, including a brief history and other political associations, could have been included. Also, cross-indexing, even in a simplified manner, would have been useful; directing Newport researchers, for example, to Portsmouth's settlement and Narragansett Bay, and including Pawtuxet valley entries in the town of West Warwick. Noah J. Arnold's work on the Pawtuxet valley is included under the broad state category, yet his material is largely within Kent County, particularly the town of West Warwick. The same is true for Mathias Harpin's several books. Cole's history of Kent and Washington Counties is included under the state and absent from either county or the many towns included. The "Entries for Rhode Island" is simply too long and cumbersome, a potpourri ranging from general to specific articles. Some attempt should have been made to subdivide this section, listing general state histories separately.

Another valuable service to researchers would have been the inclusion of a list of selected Rhode Island magazines, with dates of publication, relating to the state's history. Good sources of information include the *Narragansett Historic Register*, the Newport and Rhode Island historical societies' newsletters and periodical publications, the short-lived *Rhode Island Yearbook*, and publications of local historical societies. Newspapers, with dates, would also lead researchers to other sources of information. The several Rhode Island atlases and major

maps of the state, such as those done by Henry F. Walling, would have been another useful addition.

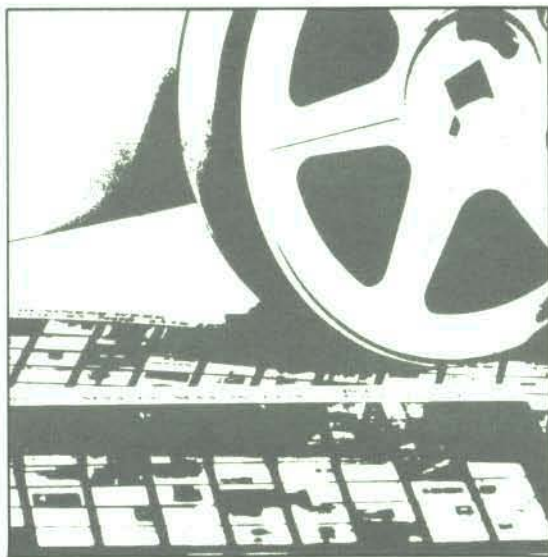
Overall, the bibliography is relatively comprehensive. The simple division of the book into three political divisions, however, raises questions regarding ease of use and for whom the bibliography is intended. A beginning researcher may not know whether "Some old Rhode Island grist mills" (entry 200) includes mills from his town. Items of this nature could—and should—have been cross-indexed for individual towns. Still, *Rhode Island: A Bibliography of its History* is a useful tool to assist researchers. It should be in all Rhode Island libraries.

Rhode Island Historical Commission

WALTER NEBIKER

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