

THE BEGINNING OF A REVOLUTION:
WALTHAM AND THE BOSTON
MANUFACTURING COMPANY

Kenton Beerman

In the United States, the Industrial Revolution marked the beginning of America's transition from a weak, agrarian nation to a global, industrial superpower. Some maintain that this Revolution started in 1813 in Waltham, a small, rural village in Eastern Massachusetts. The Boston Manufacturing Company (BMC) built a cotton mill there which, in less than a decade, would overcome all domestic and foreign competition, expand faster than any textile company before or after it, and be the direct inspiration for the Lowell mills in Northern Massachusetts, some of the most productive mills ever built. Under the shrewd guidance of Francis Cabot Lowell and Paul Moody, the BMC invented new machinery, discovered new methods with which to use the machinery, employed hardworking farm girls as cheap labor, built an idealistic utopian milltown to become the envy of the nation, and served as the prototype of the modern American corporation. The town of Lowell claims and is popularly recognized as the

Kenton Beerman was born in Hong Kong, and is a Senior at Buckingham Browne & Nichols School in Cambridge, Massachusetts, where he wrote this paper for Mr. Robert Porter's AP United States History course during the 1992/1993 academic year.

founder of all the above. Yet Waltham, not Lowell, initiated this crucial phase of the American Industrial Revolution.

Looking at New England around the turn of the nineteenth century, it would have been hard to believe that in less than fifteen years, an Industrial Revolution would be underway there. New England was predominantly rural. Ninety-four percent of the people lived in the countryside, tilling their land and tending their farms as their forefathers had for not quite two centuries.¹

However, there were minor signs that times were changing. Around ten cotton mills had begun operation throughout New England. These mills worked on a very small scale, usually employing no more than 30 to 40 laborers. The machinery they used was primitive, the best they could afford with their limited capital.²

In addition, these mills met stiff competition from imported English cloth. India, an English colony, grew huge amounts of cotton. From India the cotton was shipped to England, where it was processed into cloth using the most advanced technology in the world. The cloth was then exported to America. The English cloth's quality was very high and its price very cheap. American textile businesses, with their inferior, more expensive product, floundered severely.³

Into the struggling American mill scene came Francis Cabot Lowell. Lowell was a wealthy Boston merchant who, because of bad health, traveled to England in 1810 to recuperate. While there, he hit upon the idea of touring the British factories to learn the secrets of their industrial technology and bring them back to America.

In the late 1700s, the Industrial Revolution had begun in England. Through the discovery of such inventions as the power loom, the spinning jenny and the dressing machine, Britain had become the most powerful industrial nation on earth.⁴

The factories jealously guarded their machinery and technology from one another, but welcomed Lowell with open arms,

not considering an American one of their rivals. Endowed with a superb memory, Lowell remembered every piece of every machine he saw.⁵ In 1812, just as the War of 1812 was beginning, he returned to Boston, having “without doubt, a better knowledge of the manufacturing operations of Great Britain than was possessed by any American....”⁶

With such knowledge of British operations, Lowell began to plan how to build an American factory with English technology. He started to think of ways to raise money for such an adventurous project.⁷

Lowell had conceived of this idea at just the right time. The War of 1812 had caused an interruption of Anglo-American trade. As Britain was by far America’s biggest trading partner, the American economy was severely retarded. During the war much American capital was shifted from the trade with Britain to manufacturing ventures, like Lowell’s, in New England. However, Lowell’s project had a substantial edge over the competition: he knew about the British technology.⁸

Lowell approached four rich and powerful men to join in his manufacturing venture: his brothers-in-law Patrick Jackson and Uriah Cotting, and his friends Benjamin Gorham and Nathan Appleton.⁹ Together, they asked the state of Massachusetts for a charter of incorporation with which to begin a new company. Because of the men’s financial stature and social position, they were granted it within a week. On February 23, 1813, they incorporated the Boston Manufacturing Company (BMC), “granted a corporation for the purpose of manufacturing cotton, woolen and linen goods.”¹⁰

Having incorporated, Lowell now needed capital to finance the construction of his mill. He needed a lot of money, more than he had, as this venture would cost a lot. Lowell soon devised a unique money-raising scheme which would make the Boston Manufacturing Company the original American corporation.¹¹

Lowell solicited eleven men, including Jackson, Cotting, Gorham and Appleton. These men were asked to raise capital for

the BMC, in exchange for receiving BMC stock. Each of them could contribute any amount of money he wished. For every \$1,000 he gave, he received a BMC share in return. As the BMC grew, the value of these shares would also grow and the shareholder would make money.¹² Lowell described the venture as having “considerable risque, as there is no precedence to it, but there is even more considerable benefit in the results.”¹³

Lowell and Jackson were the biggest buyers of shares, investing \$20,000 each. Appleton, Gorham and Cotting each invested \$5,000 to \$10,000. The seven other BMC members purchased fewer shares. In total, 100 shares were bought, bringing the BMC’s initial capitalization to \$100,000—one of the largest amounts of capital for any company up to that time.¹⁴

Lowell’s idea of shareholding companies dated from the seventeenth century and joint-stock companies, in which people pooled their resources to start a company. However, the practice of buying shares to gain the capital needed to build an industrial corporation had never been done before.¹⁵ In England, which had a larger upper class than America did, the factories were solely or dually owned.¹⁶

Before the BMC, American mills had had initial capitalizations of less than \$10,000. But with increasingly large corporations such as the BMC being formed, shareholding became the easiest and most efficient way to start. Sharing costs and reaping benefits together were ideas which caught on quickly.

The basic new ideas behind the BMC corporation were the following: the concept of limited liability, where the shareholder could not lose more money than the amount he had invested, share transferability, where one investor could easily transfer his shares to another investor, and indefinite duration, where the shares could continue to exist after the original investor had died.

All these points combined to create the corporation, an idea which caught on immediately among Lowell’s investors and other manufacturers setting up factories. Within twenty years, the shareholding corporation was the most popular method with which to start a company in America.¹⁷

Following the BMC's incorporation and capitalization, the twelve men (who now called themselves the Boston Associates) searched for a suitable site for their mill. Cotting had been born in Waltham, and he suggested that BMC buy the Boies Paper Mill, which was for sale.¹⁸ The mill's optimum location—along the Charles River and next to a ten-foot waterfall from which power could be harnessed—convinced the BMC to buy it in late 1813.¹⁹

The BMC hired Paul Moody to remodel the mill. He was a mechanic who had built his own little textile mill in 1798. Moody finished the renovations a few months later. The mill building stood 90 feet by 40 feet and was four stories high, taller than most buildings of the day. The design of the mill was inventive: it was the first American mill built of brick and one of the tallest mills constructed in the world up to that time.²⁰

The mill did not begin operation until March, 1815. During 1814, Moody and Lowell painstakingly recreated all the machinery which Lowell had seen back in England.²¹ In this regard, the two men proved to be an ideal partnership.²² As Appleton described the two, "Lowell had a retentive memory, inventive ability and was very intelligent in mathematics; while Moody was excellent with his hands, a skilled workman, and with considerable inventive ability."²³ Lowell would simply tell Moody about a machine he had seen in England, then Moody would go home and invent a working model of it.

Much important and innovative machinery resulted from this partnership. Often, Moody's ingenuity enabled him to make a better American machine from the English ideas Lowell gave him.²⁴ An example of this was the dressing machine. The English dressers were able to wind the cotton on the beams rather efficiently for weaving. Through some complicated math, Lowell devised a solution to double the efficiency of the dresser. Moody translated these calculations into reality, even correcting a slight computational error of Lowell's, and the result was the Waltham dressing machine which was in use until the Civil War.²⁵

In addition to the dressing machine, Lowell and Moody discovered improvements on hundreds of British inventions, like

making the stop-motion and the spool-changer more efficient.²⁶ After Moody had constructed the spool-changer, which automatically changed spools at a rapid speed, Lowell realized that he couldn't find enough cheap-spun cotton to keep up with the spool-changer's increased capacity. Lowell simply decided to incorporate spinning and carding his own yarn into mill activities.²⁷ The Waltham mill became the first mill to spin, card and weave cotton under the same roof.²⁸

Despite all these achievements, the recreation of the water-powered power loom was by far the most important result of the Lowell/Moody collaboration. The English power loom could weave cloth at a much faster rate than its predecessor, the hand loom, which most New England mills were using.²⁹

Moody was able to improve on Lowell's memories of the loom and construct a machine superior to the British model. For example, the English loom rotated in a cam (eccentric, ovular motion). Moody constructed a loom which rotated in a crank, non-eccentric motion, giving the US loom increased speed and, thus, increased productivity over the British loom.³⁰

The Waltham power loom was put into use in late 1814.³¹ On February 2, 1815, BMC log books recorded the first time ever in the United States when cotton was manufactured into cloth by machinery: the entry reading "1,242 yards wide 4-4, 36 inches wide."³²

The cloth became a success almost immediately in Boston. At 25¢ a yard, the cloth was somewhat more expensive than its British equivalent, (15¢ a yard), which was flooding the American market in the wake of the lifting of wartime trade restrictions.³³ However, the Waltham cloth was higher quality, and within three months it was almost immediately sold out wherever it was marketed.³⁴ Appleton once remarked with confidence, "There was never the slightest hesitation or doubt about the success of this manufacture."³⁵ The Waltham mill was the first of the American mills to become successful.

Without the Moody/Lowell partnership, Waltham would have been just like the other American mills: unsuccessful. The

BMC had to rely on some industrial espionage in order to get started, but once Moody and Lowell began brainstorming, nothing would stop them from churning out inventions. The Waltham Industrial Revolution had begun.

It was not only in the technological field where Waltham made an impact. In the BMC mill, a solution to a labor problem was reached; a solution which would change gender roles in workforces forever.

In the beginning, the Waltham mill was suffering from high costs and low revenue—the dilemma of most New England mills. To cut costs, Lowell wanted to find workers “who were not necessarily strong, but who were dexterous and intelligent enough to work the mill’s complicated machinery.”³⁶ His answer was to find a group of workers who both fit the bill and allowed him to pay the bill. Lowell decided to use country girls.

Country girls were an ideal choice for workers. They were intelligent, easily trained and had experience weaving yarn and spinning cloth on their family farms. Compared to their male counterparts, they were willing to work relatively cheap.³⁷

The conditions in America during the period induced the recruitment of “mill girls.” They were economic burdens to their families back on the farms, not being able to work in the fields. By working in a mill, they could enjoy a new, adventurous experience rather than being relegated to the farmhouse.³⁸

To convince the girls’ fathers to let them leave home and work in an alien environment, Lowell and Jackson set about to create an ideal factory community. Jackson said, “One of the fundamentals of the mills would be that they were morally and intellectually upright.”³⁹ The houses where the girls were to reside were strictly supervised by chaperones. Religious services and moral instruction were mandatory. All the amenities worked: the fathers were impressed and comforted by the mills’ good morals.⁴⁰

The BMC kept its promises to be virtuous and moral for the employees. In fact, the girls received many benefits which most companies of the time did not offer.

Long blocks of boardinghouses were built next to the mills for the girls to live in. While not exactly comfortable, the spartan boardinghouses were clean and adequate. The girls also received wages for their work. They were able to spend this money anywhere: a novel idea, for most companies at the time paid their workers “wage credit,” which forced them to buy their things at the company store.⁴¹ In other words, “wage credit” was just another way to take money from the worker.

BMC official Alfred Gooddale said, “workers were paid in cash, not in company credit. Lowell believed this to be fairer to the worker.”⁴² The girls could have easily been exploited by the BMC, and made to work long hours for mere “wage credit.” The girls were naive, and did not know how they were supposed to be paid.

Yet Lowell believed in the importance of keeping promises, and thus did not take advantage of the girls. In terms of an employer’s consideration for his workers, the BMC was way ahead of its time—perhaps even ahead of today’s time.

Giving the girls these benefits was also advantageous to the BMC. Contented workers made productive workers. So in the long run, the BMC probably profited from this approach, seeing production increase while at the same time improving their public relations.

The BMC was also generous concerning the town of Waltham. In 1816, the BMC established two schools, allocated \$500 for a library (now the Waltham Public Library),⁴³ expanded Waltham’s meeting house, built one church and enlarged another. It built Waltham’s first fire engine in 1817, and in response to public demand, built Waltham’s first fire station a year later.⁴⁴ In 1819, the BMC organized the Waltham Savings Bank.⁴⁵ By 1820, the BMC had helped to construct or renovate almost every public building in Waltham.

The BMC had transformed Waltham from a sleepy village to a modern community, without placing the town under its thumb. Waltham’s problems were ameliorated without having to sacrifice anything.⁴⁶ Waltham’s public works were helped im-

mensely, its citizens were satisfied, and the BMC received continued public support. This is similar to the mill girls' situation, where the presence of the BMC benefited all parties involved. Again the company's treatment of Waltham was a result of Lowell's business philosophies. Appleton said about Lowell, "In the very best sense he was a reformer of the homes and lives around him, being controlled by humane, not mercenary motives."⁴⁷

The presence of the BMC greatly changed Waltham demographics. From 1805 to 1815 Waltham saw an 8% population increase. In the following decade the town's inhabitants increased by 65%. The influx of mill girls was reflected in the 1820 census: there were 147 females for each 100 males.⁴⁸

However, the numerical effect of the mill girls on Waltham was less than might be expected. The girls were transient labor, working in the mills for two to three years before moving on.⁴⁹ They thus remained a transient part of Waltham, not being able to spend enough time there really to assimilate to town life. Even if they had wanted to, the strict rules and curfews of the mill prevented them from dallying or socializing.

In 1820, mill employees numbered around 350, and Waltham's total population was 1,677: meaning that only around 21% of Waltham residents were employed by the BMC.⁵⁰ Most Waltham inhabitants were still farmers, tilling their land, drinking in the pubs, and living their lives without really noticing the mill by the river.

The BMC intervened in Waltham's economic matters, but remained apart from Waltham's social life. The mill's policy of economic intervention but social isolation was known as the paternalistic system.⁵¹

The various practices of the BMC regarding mill girls, "wage credit" and social services were all innovative for the time. For the first time in American history, a company sponsored housing for its employees, young women were the predominant workforce, and employees were paid cash, not wage credit, for their labor.⁵² Future planned communities such as Lowell and Manchester would be based on the paternalistic system concept.⁵³

The paternalistic system was focused on enriching the community as much as possible, but not hindering or disrupting its life. The social and economic conditions created by the BMC were never really ever successfully recreated anywhere else in the world, not even in the city of Lowell, which directly followed Waltham. Perhaps it is due to the unusual qualities found in Lowell, the man—he was so caring, so intelligent, so shrewd, that there may never have been another company leader like him. When he succumbed to illness and died in 1817 at age 42,⁵⁴ Appleton said, “He impressed on his colleagues the necessity of providing means for improving the education and morals of the employees....It was Mr. Lowell who was the informing soul in introducing the new system of cotton manufacture.”⁵⁵

Lowell’s death was an incalculable loss to the BMC. It was uncertain how it would fare with its chief inventor, leader and mentor gone. Jackson took over as head of the BMC after Lowell’s death. He faithfully adhered to many of Lowell’s policies, including the use of mill girls and the paternalistic system, partly because Lowell’s formulas worked and partly because Jackson was not imaginative enough to think up any new methods. In any case, the mills’ production exploded in 1816 and 1817.⁵⁶ Even when a depression hit in late 1817, the BMC’s business continued to expand. Ironically, the BMC achieved its greatest growth and expansion in the midst of this depression, due to shrewd maneuvering of capital.⁵⁷

After the War of 1812 ended, patriotic fervor was high and American industries enjoyed a boom.⁵⁸ Most New England textile manufacturers took out large loans for expansion. When the boom abruptly ended and a depression set in during 1816, these companies were suddenly stuck with no money and huge debt. Most of them folded.⁵⁹

However, the BMC managed to make it through the depression unscathed, because of the large reserve of capital it had accumulated over the years. During the boom, the BMC had stayed cautious, preferring to build its reserves slowly by gradually adding stockholders, rather than rashly seeking loans.⁶⁰ So when

the depression hit, the BMC proved their shrewd corporate strategies to be a success. While most companies were in bankruptcy court, the Associates were rich, comfortable and aggressively planning new ways to expand.⁶¹

In 1818, the BMC built a second mill, adjacent to the original. After completion of the mill, the BMC's production increased from around 100,000 yards per year to more than 250,000 yards. In 1819 it bought the nearby Waltham Cotton and Wool Factory, as well as the 100-foot strip of land between it and the BMC's two other mills. A fourth mill was then built upon this land.⁶²

All the time, the shareholders were multiplying in number, and the BMC was becoming more and more powerful. By 1820, after the fourth mill opened for production, more than 500,000 yards of cloth were being produced each year, compared with around 4,000 yards just five short years earlier. Share dividends were 19.25% a year in 1820, increasing to 27.5% in 1821, an extremely high profit margin which is almost unattainable even today.⁶³ In addition, prices of Waltham cloth were steadily going down, while output, revenue, and production were increasing and technology was continually improving. For example, in 1816, Waltham cloth was priced at 30¢ per yard; in 1819 this figure dropped to 21¢ and by 1823 it was a mere 13¢, a 57% decrease in seven years.⁶⁴ The BMC was one of the most successful companies out of the gate in the history of industry.⁶⁵

Ironically, the good fortune Waltham was experiencing soon led to its downfall. The river's water power had been exhausted by the four mills, and further expansion in Waltham was impossible. The Associates needed a new place to work.⁶⁶

They looked at several expansion site possibilities, and in 1822 decided upon a sparsely populated place on the Merrimack River in Northeast Massachusetts. A city was quickly built and named Lowell. The Boston Associates regrouped and formed the Merrimack Manufacturing Company (MMC). In a couple of years Lowell's production surpassed that of Waltham.⁶⁷ Concurrently,

Waltham lapsed into obscurity, and Lowell became renowned as the place where the American Industrial Revolution began.

However, Harvard historian Alfred Chandler has said, “Waltham was more important to US history than Lowell. It is merely because the Merrimack afforded more wheel turning power than the Charles, that Lowell became more productive and, ultimately, more famous than Waltham.”⁶⁸

Lowell is indebted to Waltham in many important areas. Most of Waltham’s skilled workers, including Moody, left for Lowell in 1822.⁶⁹ All of Lowell’s early machinery was inherited and transported from Waltham. Even after Lowell started to make its own machinery a couple of years later, the technology used was the same that Francis Cabot Lowell and Paul Moody had developed.⁷⁰ For example, the basic structure of the power loom and the dressing machine remained unchanged until the late 1840s.⁷¹

Culling mill girls from the countryside, building an utopian milltown, adhering to the corporation system and relying on reserve capital to stay immune from depression—all were Waltham ideas. While it is true that Lowell did not follow Waltham’s paternalistic system—Lowell was completely dominated economically *and* socially by the MMC—much of what happened in Lowell was directly related to the Waltham experience.⁷² The various technological, sociological and economic innovations perfected in Waltham soon became known as the “Waltham System,” a successful way of running an industrial enterprise.⁷³

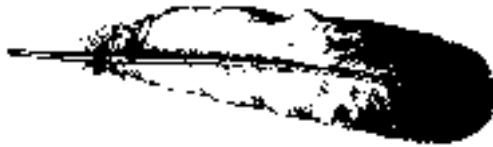
By the late 1820s, other New England companies had begun to follow the “Waltham system.” From then until the outbreak of the Civil War in 1861, “Waltham system” companies were recognized as being the most morally upright, most dedicated to quality products, most profitable and most efficient of all United States companies.⁷⁴

The “Waltham system” drastically affected all classes of people. Following the lead of Francis Cabot Lowell, merchants went from being importers of Indian fabrics to manufacturers of domestic fabrics. The planter, who had hitherto struggled to sell

his cotton, now found new, profitable domestic markets for his crop.⁷⁵ And all across America, skilled workers, people adept at one skill such as stitching or weaving, lost their jobs as technological advances swept the country.

When the Waltham mill began operating in 1814, no one took notice. It was just another mill making small quantities of crude cloth, feebly competing against British and Indian products. From these humble beginnings rose a factory which would serve as a model for the American industrial and corporate systems. Because of the inventive minds of Lowell and Moody, the use of the paternalistic system and the Boston Associates' shrewd corporate maneuverings, the BMC was the catalyst of the American Industrial Revolution.

The most amazing aspect of the Waltham mill is the timelessness of its ideas. Many of the concepts and technology first thought up in the "little mill along the Charles"⁷⁶ have survived the test of almost two hundred years. Today, there still exist in operation such Waltham ideals as continually improving technology, employing women in the factory, and trying to benefit the local community. Waltham and the BMC left the old Boies paper mill behind a long time ago, but some things that happened inside it will never be left behind.



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- ² John W. Cox, Waltham's Industrial Heritage (Waltham: L. Michael Kaye Co., 1983) p. 11
- ³ Kenneth Mailloux, The Boston Manufacturing Company of Waltham (Ann Arbor, MI: University Microfilms International, 1953) p. 26
- ⁴ *Ibid.*, p. 35
- ⁵ Cox, p. 17
- ⁶ Samuel Batchelder, Introduction and Early Progress of the Cotton Manufacture of the United States (Boston: Little, Brown and Co., 1863) p. 60
- ⁷ Steve Dunwell, The Run of the Mill (Dartmouth: Godine Publishing, Inc., 1978)
- ⁸ Nathan Appleton, Introduction to the Power Loom (Lowell: B.H. Penhallow, 1858) p. 10
- ⁹ Edmund Sanderson, Waltham Industries (Lunenburg, VT: Waltham Historical Society, Inc., 1957) p. 119
- ¹⁰ Mailloux, pp. 48-50
- ¹¹ Robert Dalzell, Enterprising Elite (Cambridge: Harvard University Press, 1987) pp. 26-36
- ¹² *Ibid.*, p. 45
- ¹³ Mailloux, p. 51
- ¹⁴ Dalzell, p. 29
- ¹⁵ "The Charles River Museum of Industry First Fact Sheet," Charles River Museum of Industry: 1
- ¹⁶ Louise G. McCullough, The Golden Door (Waltham: Waltham Publishing Company, 1959) p. 19
- ¹⁷ Dalzell, pp. 26-45
- ¹⁸ Sanderson, p. 119
- ¹⁹ Dunwell, p. 30
- ²⁰ Sanderson, p. 120
- ²¹ Ephraim Barry, ed., Proceedings at the Celebration of the Sesqui-Centennial of the Town of Waltham (1888) (Waltham: Ephraim Barry Press, 1893) p. 53
- ²² Appleton, p. 10
- ²³ Sanderson, p. 121
- ²⁴ Appleton, p. 9
- ²⁵ *Ibid.*, p. 9
- ²⁶ *Ibid.*, p. 9
- ²⁷ Barry, Proceedings, p. 53
- ²⁸ Museum Fact Sheet
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- ³⁰ Appleton, p. 9
- ³¹ Barry, Proceedings, p. 53
- ³² Ephraim Barry, The City of Waltham—Its Advantages to Manufacturers and as a Place of Residence (Waltham: Waltham Board of Trade, 1887) p. 69
- ³³ Ferris Greenslet, The Lowells and their Seven Worlds (Boston: Houghton Mifflin Company, 1946) p. 158
- ³⁴ Barry, Advantages, p. 69
- ³⁵ Dalzell, p. 26
- ³⁶ Dunwell, p. 32
- ³⁷ Greenslet, p. 159
- ³⁸ Howard Gitelman, Workingmen of Waltham (Baltimore: Johns Hopkins University Press, 1975) p. 3
- ³⁹ Barry, Advantages, p. 56
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- ⁴¹ Museum Fact Sheet
- ⁴² Kristen Petersen, Waltham Rediscovered (Portsmouth: Peter E. Randall Publishing, 1988) p. 90
- ⁴³ Barry, Advantages, p. 70
- ⁴⁴ Petersen, p. 16
- ⁴⁵ Barry, Advantages, p. 70
- ⁴⁶ Barry, Proceedings, p. 53
- ⁴⁷ Sanderson, p. 122
- ⁴⁸ Gitelman, pp. 6-8
- ⁴⁹ *Ibid.*, p. 3
- ⁵⁰ *Ibid.*, p. 8
- ⁵¹ Greenslet, p. 159
- ⁵² Museum Fact Sheet
- ⁵³ Greenslet, p. 159
- ⁵⁴ Sanderson, p. 122
- ⁵⁵ Appleton, p. 15
- ⁵⁶ Cox, p. 19
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- ⁵⁸ Compton's p. 174
- ⁵⁹ Appleton, p. 13
- ⁶⁰ Dunwell, p. 39
- ⁶¹ Dalzell, p. 38
- ⁶² Barry, Advantages, p. 69
- ⁶³ Dalzell, p. 38
- ⁶⁴ Appleton, p. 16
- ⁶⁵ Dunwell, p. 34
- ⁶⁶ Dalzell, p. 39
- ⁶⁷ Barry, Advantages, p. 70

- ⁶⁸ Max Hall, The Charles—The People's River (Boston: David Godine Publishing, 1986) p. 21
- ⁶⁹ Barry, Advantages, p. 70
- ⁷⁰ Barry, Proceedings, p. 57
- ⁷¹ *Ibid.*, p. 57
- ⁷² Gitelman, p. 5
- ⁷³ McCullough, p. 15
- ⁷⁴ Edward Wilson, The Lowells and their Institute (Boston: Atlantic Monthly Press, 1966) p. 47
- ⁷⁵ *Ibid.*, p. 47
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