

CHAPTER 9

Industrial Transformation in the North, 1800–1850



Figure 9.1 *Five Points* (1827), by George Catlin, depicts the infamous Five Points neighborhood of New York City, so called because it was centered at the intersection of five streets. Five Points was home to a polyglot mix of recent immigrants, freed slaves, and other members of the working class.

Chapter Outline

- 9.1 Early Industrialization in the Northeast
- 9.2 A Vibrant Capitalist Republic
- 9.3 On the Move: The Transportation Revolution
- 9.4 A New Social Order: Class Divisions

Introduction

By the 1830s, the United States had developed a thriving industrial and commercial sector in the Northeast. Farmers embraced regional and distant markets as the primary destination for their products. Artisans witnessed the methodical division of the labor process in factories. Wage labor became an increasingly common experience. These industrial and market revolutions, combined with advances in transportation, transformed the economic and social landscape. Americans could now quickly produce larger amounts of goods for a nationwide, and sometimes an international, market and rely less on foreign imports than in colonial times.

As American economic life shifted rapidly and modes of production changed, new class divisions emerged and solidified, resulting in previously unknown economic and social inequalities. This image of the Five Points district in New York City captures the turbulence of the time (**Figure 9.1**). Five Points began as a settlement for freed slaves, but it soon became a crowded urban world of American day laborers and low-wage workers who lived a precarious existence that the economic benefits of the new economy largely bypassed. An influx of immigrant workers swelled and diversified an already crowded urban population. By the 1830s, the area had become a slum, home to widespread poverty, crime, and disease. Advances in industrialization and the market revolution came at a human price.

9.1 Early Industrialization in the Northeast

By the end of this section, you will be able to:

- Explain the role of the putting-out system in the rise of industrialization
- Understand industrialization's impact on the nature of production and work
- Describe the effect of industrialization on consumption
- Identify the goals of workers' organizations like the Working Men's Party

Northern industrialization expanded rapidly following the War of 1812. Industrialized manufacturing began in New England, where wealthy merchants built water-powered textile mills (and mill towns to support them) along the rivers of the Northeast. These mills introduced new modes of production centralized within the confines of the mill itself. As never before, production relied on mechanized sources with water power, and later steam, to provide the force necessary to drive machines. In addition to the mechanization and centralization of work in the mills, specialized, repetitive tasks assigned to wage laborers replaced earlier modes of handicraft production done by artisans at home. The operations of these mills irrevocably changed the nature of work by deskilling tasks, breaking down the process of production to its most basic, elemental parts. In return for their labor, the workers, who at first were young women from rural New England farming families, received wages. From its origin in New England, manufacturing soon spread to other regions of the United States.

FROM ARTISANS TO WAGE WORKERS

During the seventeenth and eighteenth centuries, **artisans**—skilled, experienced craft workers—produced goods by hand. The production of shoes provides a good example. In colonial times, people bought their shoes from master shoemakers, who achieved their status by living and working as apprentices under the rule of an older master artisan. An apprenticeship would be followed by work as a journeyman (a skilled worker without his own shop). After sufficient time as a journeyman, a shoemaker could at last set up his own shop as a master artisan. People came to the shop, usually attached to the back of the master artisan's house, and there the shoemaker measured their feet in order to cut and stitch together an individualized product for each customer.

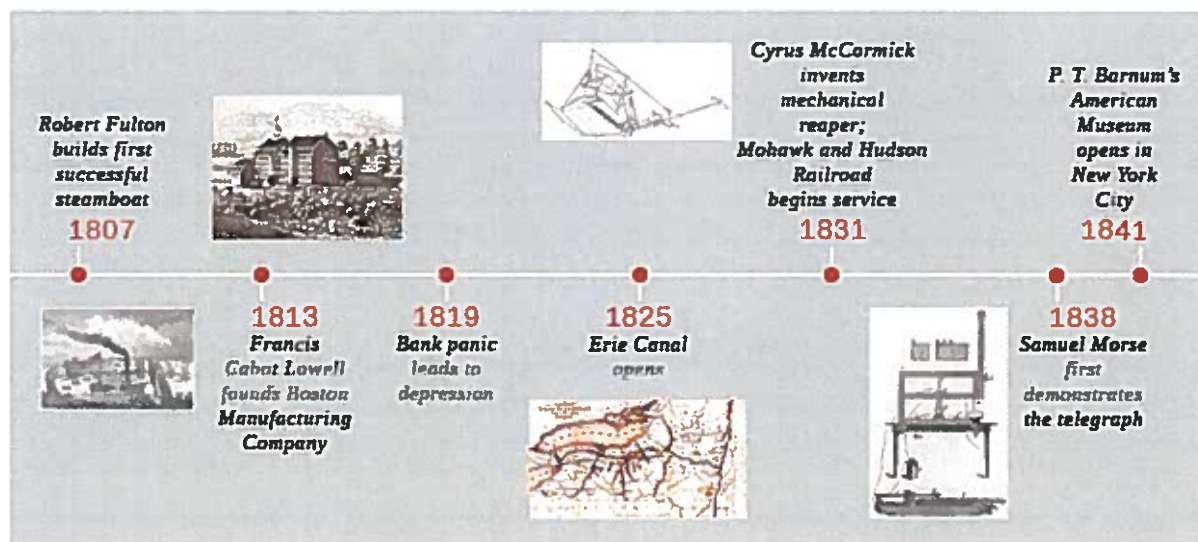


Figure 9.2 (credit "1807 photo": Project Gutenberg Archives)

In the late eighteenth and early nineteenth century, merchants in the Northeast and elsewhere turned their attention as never before to the benefits of using unskilled wage labor to make a greater profit by reducing labor costs. They used the **putting-out system**, which the British had employed at the beginning of their own Industrial Revolution, whereby they hired farming families to perform specific tasks in the production process for a set wage. In the case of shoes, for instance, American merchants hired one group of workers to cut soles into standardized sizes. A different group of families cut pieces of leather for the uppers, while still another was employed to stitch the standardized parts together.

This process proved attractive because it whittled production costs. The families who participated in the putting-out system were not skilled artisans. They had not spent years learning and perfecting their craft and did not have ambitious journeymen to pay. Therefore, they could not demand—and did not receive—high wages. Most of the year they tended fields and orchards, ate the food that they produced, and sold the surplus. Putting-out work proved a welcome source of extra income for New England farm families who saw their profits dwindle from new competition from midwestern farms with higher-yield lands.

Much of this part-time production was done under contract to merchants. Some farming families engaged in shoemaking (or shoe assemblage), as noted above. Many made brooms, plaited hats from straw or palm leaves (which merchants imported from Cuba and the West Indies), crafted furniture, made pottery, or wove baskets. Some, especially those who lived in Connecticut, made parts for clocks. The most common part-time occupation, however, was the manufacture of textiles. Farm women spun woolen thread and wove fabric. They also wove blankets, made rugs, and knit stockings. All this manufacturing took place on the farm, giving farmers and their wives control over the timing and pace of their labor. Their domestic productivity increased the quantity of goods available for sale in country towns and nearby cities.

THE RISE OF MANUFACTURING

In the late 1790s and early 1800s, Great Britain boasted the most advanced textile mills and machines in the world, and the United States continued to rely on Great Britain for finished goods. Great Britain hoped to maintain its economic advantage over its former colonies in North America. So, in an effort to prevent the knowledge of advanced manufacturing from leaving the Empire, the British banned the emigration of mechanics, skilled workers who knew how to build and repair the latest textile machines.

Some skilled British mechanics, including Samuel Slater, managed to travel to the United States in the hopes of profiting from their knowledge and experience with advanced textile manufacturing. Slater (Figure 9.3) understood the workings of the latest water-powered textile mills, which British industrialist Richard Arkwright had pioneered. In the 1790s in Pawtucket, Rhode Island, Slater convinced several American merchants, including the wealthy Providence industrialist Moses Brown, to finance and build a water-powered cotton mill based on the British models. Slater's knowledge of both technology and mill organization made him the founder of the first truly successful cotton mill in the United States.



(a)



(b)

Figure 9.3 Samuel Slater (a) was a British migrant who brought plans for English textile mills to the United States and built the nation's first successful water-powered mill in Pawtucket, Massachusetts (b).

The success of Slater and his partners Smith Brown and William Almy, relatives of Moses Brown, inspired others to build additional mills in Rhode Island and Massachusetts. By 1807, thirteen more mills had been established. President Jefferson's embargo on British manufactured goods from late 1807 to early 1809 (discussed in a previous chapter) spurred more New England merchants to invest in industrial enterprises. By 1812, seventy-eight new textile mills had been built in rural New England towns. More than half turned out woolen goods, while the rest produced cotton cloth.

Slater's mills and those built in imitation of his were fairly small, employing only seventy people on average. Workers were organized the way that they had been in English factories, in family units. Under the "Rhode Island system," families were hired. The father was placed in charge of the family unit, and he directed the labor of his wife and children. Instead of being paid in cash, the father was given "credit" equal to the extent of his family's labor that could be redeemed in the form of rent (of company-owned housing) or goods from the company-owned store.

The Embargo of 1807 and the War of 1812 played a pivotal role in spurring industrial development in the United States. Jefferson's embargo prevented American merchants from engaging in the Atlantic trade, severely cutting into their profits. The War of 1812 further compounded the financial woes of American merchants. The acute economic problems led some New England merchants, including Francis Cabot Lowell, to cast their gaze on manufacturing. Lowell had toured English mills during a stay in Great Britain. He returned to Massachusetts having memorized the designs for the advanced textile machines he had seen in his travels, especially the power loom, which replaced individual hand weavers. Lowell convinced other wealthy merchant families to invest in the creation of new mill towns. In 1813, Lowell and these wealthy investors, known as the Boston Associates, created the Boston Manufacturing Company. Together they raised \$400,000 and, in 1814, established a textile mill in Waltham and a second one in the same town shortly thereafter (**Figure 9.4**).



Figure 9.4 The Boston Manufacturing Company, shown in this engraving made in 1813–1816, was headquartered in Waltham, Massachusetts. The company started the northeastern textile industry by building water-powered textile mills along suitable rivers and developing mill towns around them.

At Waltham, cotton was carded and drawn into coarse strands of cotton fibers called rovings. The rovings were then spun into yarn, and the yarn woven into cotton cloth. Yarn no longer had to be put out to farm families for further processing. All the work was now performed at a central location—the factory.

The work in Lowell's mills was both mechanized and specialized. Specialization meant the work was broken down into specific tasks, and workers repeatedly did the one task assigned to them in the course of a day. As machines took over labor from humans and people increasingly found themselves confined to the same repetitive step, the process of **deskilling** began.

The Boston Associates' mills, which each employed hundreds of workers, were located in company towns, where the factories and worker housing were owned by a single company. This gave the owners and their agents control over their workers. The most famous of these company towns was Lowell, Massachusetts. The new town was built on land the Boston Associates purchased in 1821 from the village of East Chelmsford at the falls of the Merrimack River, north of Boston. The mill buildings themselves were constructed of red brick with large windows to let in light. Company-owned boarding houses to shelter employees were constructed near the mills. The mill owners planted flowers and trees to maintain the appearance of a rural New England town and to forestall arguments, made by many, that factory work was unnatural and unwholesome.

In contrast to many smaller mills, the Boston Associates' enterprises avoided the Rhode Island system, preferring individual workers to families. These employees were not difficult to find. The competition New England farmers faced from farmers now settling in the West, and the growing scarcity of land in population-dense New England, had important implications for farmers' children. Realizing their chances of inheriting a large farm or receiving a substantial dowry were remote, these teenagers sought other employment opportunities, often at the urging of their parents. While young men could work at a variety of occupations, young women had more limited options. The textile mills provided suitable employment for the daughters of Yankee farm families.

Needing to reassure anxious parents that their daughters' virtue would be protected and hoping to avoid what they viewed as the problems of industrialization—filth and vice—the Boston Associates established strict rules governing the lives of these young workers. The women lived in company-owned boarding houses to which they paid a portion of their wages. They woke early at the sound of a bell and worked a twelve-hour day during which talking was forbidden. They could not swear or drink alcohol, and they were required to attend church on Sunday. Overseers at the mills and boarding-house keepers kept a close eye on the young women's behavior; workers who associated with people of questionable reputation or acted in ways that called their virtue into question lost their jobs and were evicted.

DEFINING "AMERICAN"

Michel Chevalier on Mill Worker Rules and Wages

In the 1830s, the French government sent engineer and economist Michel Chevalier to study industrial and financial affairs in Mexico and the United States. In 1839, he published *Society, Manners, and Politics in the United States*, in which he recorded his impressions of the Lowell textile mills. In the excerpt below, Chevalier describes the rules and wages of the Lawrence Company in 1833.

All persons employed by the Company must devote themselves assiduously to their duty during working-hours. They must be capable of doing the work which they undertake, or use all their efforts to this effect. They must on all occasions, both in their words and in their actions, show that they are penetrated by a laudable love of temperance and virtue, and animated by a sense of their moral and social obligations. The Agent of the Company shall endeavour to set to all a good example in this respect. Every individual who shall be notoriously dissolute, idle, dishonest, or intemperate, who shall be in the practice of absenting himself from divine service, or shall violate the Sabbath, or shall be addicted to gaming, shall be dismissed from the service of the Company. . . . All ardent spirits are banished from the Company's grounds, except when prescribed by a physician. All games of hazard and cards are prohibited within their limits and in the boarding-houses.

Weekly wages were as follows:

For picking and carding, \$2.78 to \$3.10

For spinning, \$3.00

For weaving, \$3.10 to \$3.12

For warping and sizing, \$3.45 to \$4.00

For measuring and folding, \$3.12

What kind of world were the factory owners trying to create with these rules? How do you think those who believed all white people were born free and equal would react to them?

Click and Explore



Visit the **Textile Industry History** (<http://openstaxcollege.org/l/15textHistory>) site to explore the mills of New England through its collection of history, images, and ephemera.

The mechanization of formerly handcrafted goods, and the removal of production from the home to the factory, dramatically increased output of goods. For example, in one nine-month period, the numerous Rhode Island women who spun yarn into cloth on hand looms in their homes produced a total of thirty-four thousand yards of fabrics of different types. In 1855, the women working in just one of Lowell's mechanized mills produced more than forty-three thousand yards.

The Boston Associates' cotton mills quickly gained a competitive edge over the smaller mills established by Samuel Slater and those who had imitated him. Their success prompted the Boston Associates to expand. In Massachusetts, in addition to Lowell, they built new mill towns in Chicopee, Lawrence, and Holyoke. In New Hampshire, they built them in Manchester, Dover, and Nashua. And in Maine, they built a large mill in Saco on the Saco River. Other entrepreneurs copied them. By the time of the Civil War, 878 textile factories had been built in New England. All together, these factories employed more than 100,000 people

and produced more than 940 million yards of cloth.

Success in New England was repeated elsewhere. Small mills, more like those in Rhode Island than those in northern Massachusetts, New Hampshire, and Maine, were built in New York, Delaware, and Pennsylvania. By midcentury, three hundred textile mills were located in and near Philadelphia. Many produced specialty goods, such as silks and printed fabrics, and employed skilled workers, including people working in their own homes. Even in the South, the region that otherwise relied on slave labor to produce the very cotton that fed the northern factory movement, more than two hundred textile mills were built. Most textiles, however, continued to be produced in New England before the Civil War.

Alongside the production of cotton and woolen cloth, which formed the backbone of the Industrial Revolution in the United States as in Britain, other crafts increasingly became mechanized and centralized in factories in the first half of the nineteenth century. Shoe making, leather tanning, papermaking, hat making, clock making, and gun making had all become mechanized to one degree or another by the time of the Civil War. Flour milling, because of the inventions of Oliver Evans (Figure 9.5), had become almost completely automated and centralized by the early decades of the nineteenth century. So efficient were Evans-style mills that two employees were able to do work that had originally required five, and mills using Evans's system spread throughout the mid-Atlantic states.

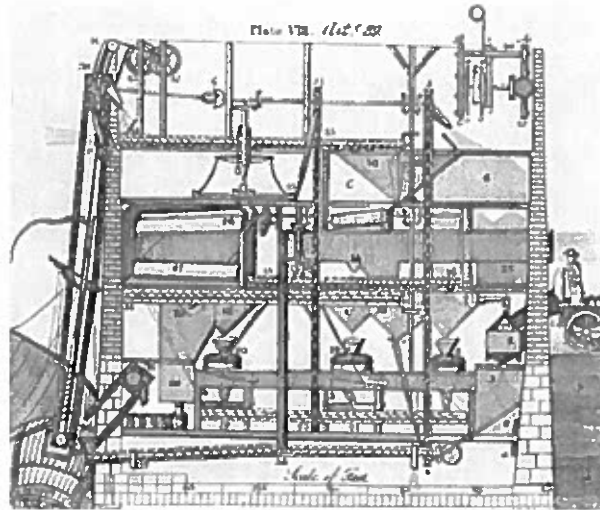


Figure 9.5 Oliver Evans was an American engineer and inventor, best known for developing ways to automate the flour milling process, which is illustrated here in a drawing from a 1785 instructional book called *The Young Mill-Wright & Miller's Guide*.

THE RISE OF CONSUMERISM

At the end of the eighteenth century, most American families lived in candlelit homes with bare floors and unadorned walls, cooked and warmed themselves over fireplaces, and owned few changes of clothing. All manufactured goods were made by hand and, as a result, were usually scarce and fairly expensive.

The automation of the manufacturing process changed that, making consumer goods that had once been thought of as luxury items widely available for the first time. Now all but the very poor could afford the necessities and some of the small luxuries of life. Rooms were lit by oil lamps, which gave brighter light than candles. Homes were heated by parlor stoves, which allowed for more privacy; people no longer needed to huddle together around the hearth. Iron cookstoves with multiple burners made it possible for housewives to prepare more elaborate meals. Many people could afford carpets and upholstered furniture, and even farmers could decorate their homes with curtains and wallpaper. Clocks, which had once been quite expensive, were now within the reach of most ordinary people.

THE WORK EXPERIENCE TRANSFORMED

As production became mechanized and relocated to factories, the experience of workers underwent significant changes. Farmers and artisans had controlled the pace of their labor and the order in which things were done. If an artisan wanted to take the afternoon off, he could. If a farmer wished to rebuild his fence on Thursday instead of on Wednesday, he could. They conversed and often drank during the workday. Indeed, journeymen were often promised alcohol as part of their wages. One member of the group might be asked to read a book or a newspaper aloud to the others. In the warm weather, doors and windows might be opened to the outside, and work stopped when it was too dark to see.

Work in factories proved to be quite different. Employees were expected to report at a certain time, usually early in the morning, and to work all day. They could not leave when they were tired or take breaks other than at designated times. Those who arrived late found their pay docked; five minutes' tardiness could result in several hours' worth of lost pay, and repeated tardiness could result in dismissal. The monotony of repetitive tasks made days particularly long. Hours varied according to the factory, but most factory employees toiled ten to twelve hours a day, six days a week. In the winter, when the sun set early, oil lamps were used to light the factory floor, and employees strained their eyes to see their work and coughed as the rooms filled with smoke from the lamps. In the spring, as the days began to grow longer, factories held "blowing-out" celebrations to mark the extinguishing of the oil lamps. These "blow-outs" often featured processions and dancing.

Freedom within factories was limited. Drinking was prohibited. Some factories did not allow employees to sit down. Doors and windows were kept closed, especially in textile factories where fibers could be easily disturbed by incoming breezes, and mills were often unbearably hot and humid in the summer. In the winter, workers often shivered in the cold. In such environments, workers' health suffered.

The workplace posed other dangers as well. The presence of cotton bales alongside the oil used to lubricate machines made fire a common problem in textile factories. Workplace injuries were also common. Workers' hands and fingers were maimed or severed when they were caught in machines; in some cases, their limbs or entire bodies were crushed. Workers who didn't die from such injuries almost certainly lost their jobs, and with them, their income. Corporal punishment of both children and adults was common in factories; where abuse was most extreme, children sometimes died as a result of injuries suffered at the hands of an overseer.

As the decades passed, working conditions deteriorated in many mills. Workers were assigned more machines to tend, and the owners increased the speed at which the machines operated. Wages were cut in many factories, and employees who had once labored for an hourly wage now found themselves reduced to piecework, paid for the amount they produced and not for the hours they toiled. Owners also reduced compensation for piecework. Low wages combined with regular periods of unemployment to make the lives of workers difficult, especially for those with families to support. In New York City in 1850, for example, the average male worker earned \$300 a year; it cost approximately \$600 a year to support a family of five.

WORKERS AND THE LABOR MOVEMENT

Many workers undoubtedly enjoyed some of the new wage opportunities factory work presented. For many of the young New England women who ran the machines in Waltham, Lowell, and elsewhere, the experience of being away from the family was exhilarating and provided a sense of solidarity among them. Though most sent a large portion of their wages home, having even a small amount of money of their own was a liberating experience, and many used their earnings to purchase clothes, ribbons, and other consumer goods for themselves.

The long hours, strict discipline, and low wages, however, soon led workers to organize to protest their working conditions and pay. In 1821, the young women employed by the Boston Manufacturing Company in Waltham went on strike for two days when their wages were cut. In 1824, workers in Pawtucket struck to protest reduced pay rates and longer hours, the latter of which had been achieved by cutting back the

amount of time allowed for meals. Similar strikes occurred at Lowell and in other mill towns like Dover, New Hampshire, where the women employed by the Cocheco Manufacturing Company ceased working in December 1828 after their wages were reduced. In the 1830s, female mill operatives in Lowell formed the Lowell Factory Girls Association to organize strike activities in the face of wage cuts (Figure 9.6) and, later, established the Lowell Female Labor Reform Association to protest the twelve-hour workday. Even though strikes were rarely successful and workers usually were forced to accept reduced wages and increased hours, work stoppages as a form of labor protest represented the beginnings of the labor movement in the United States.



(a)



(b)

Figure 9.6 New England mill workers were often young women, as seen in this early tintype made ca. 1870 (a). When management proposed rent increases for those living in company boarding houses, female textile workers in Lowell responded by forming the Lowell Factory Girls Association—its constitution is shown in image (b)—in 1836 and organizing a “turn-out” or strike.

Critics of industrialization blamed it for the increased concentration of wealth in the hands of the few: the factory owners made vast profits while the workers received only a small fraction of the revenue from what they produced. Under the **labor theory of value**, said critics, the value of a product should accurately reflect the labor needed to produce it. Profits from the sale of goods produced by workers should be distributed so laborers recovered in the form of wages the value their effort had added to the finished product. While factory owners, who contributed the workspace, the machinery, and the raw materials needed to create a product, should receive a share of the profits, their share should not be greater than the value of their contribution. Workers should thus receive a much larger portion of the profits than they currently did, and factory owners should receive less.

In Philadelphia, New York, and Boston—all cities that experienced dizzying industrial growth during the nineteenth century—workers united to form political parties. Thomas Skidmore, from Connecticut, was the outspoken organizer of the **Working Men’s Party**, which lodged a radical protest against the exploitation of workers that accompanied industrialization. Skidmore took his cue from Thomas Paine and the American Revolution to challenge the growing inequity in the United States. He argued that inequality originated in the unequal distribution of property through inheritance laws. In his 1829 treatise, *The Rights of Man to Property*, Skidmore called for the abolition of inheritance and the redistribution of property. The Working Men’s Party also advocated the end of imprisonment for debt, a common practice whereby the

debtor who could not pay was put in jail and his tools and property, if any, were confiscated. Skidmore's vision of radical equality extended to all; women and men, no matter their race, should be allowed to vote and receive property, he believed. Skidmore died in 1832 when a cholera epidemic swept New York City, but the state of New York did away with imprisonment for debt in the same year.

Worker activism became less common in the late 1840s and 1850s. As German and Irish immigrants poured into the United States in the decades preceding the Civil War, native-born laborers found themselves competing for jobs with new arrivals who were willing to work longer hours for less pay. In Lowell, Massachusetts, for example, the daughters of New England farmers encountered competition from the daughters of Irish farmers suffering the effects of the potato famine; these immigrant women were willing to work for far less and endure worse conditions than native-born women. Many of these native-born "daughters of freemen," as they referred to themselves, left the factories and returned to their families. Not all wage workers had this luxury, however. Widows with children to support and girls from destitute families had no choice but to stay and accept the faster pace and lower pay. Male German and Irish immigrants competed with native-born men. Germans, many of whom were skilled workers, took jobs in furniture making. The Irish provided a ready source of unskilled labor needed to lay railroad track and dig canals. American men with families to support grudgingly accepted low wages in order to keep their jobs. As work became increasingly deskilled, no worker was irreplaceable, and no one's job was safe.

9.2 A Vibrant Capitalist Republic

By the end of this section, you will be able to:

- Explain the process of selling western land
- Discuss the causes of the Panic of 1819
- Identify key American innovators and inventors

By the 1840s, the United States economy bore little resemblance to the import-and-export economy of colonial days. It was now a market economy, one in which the production of goods, and their prices, were unregulated by the government. Commercial centers, to which job seekers flocked, mushroomed. New York City's population skyrocketed. In 1790, it was 33,000; by 1820, it had reached 200,000; and by 1825, it had swelled to 270,000. New opportunities for wealth appeared to be available to anyone.

However, the expansion of the American economy made it prone to the boom-and-bust cycle. Market economies involve fluctuating prices for labor, raw materials, and consumer goods and depend on credit and financial instruments—any one of which can be the source of an imbalance and an economic downturn in which businesses and farmers default, wage workers lose their employment, and investors lose their assets. This happened for the first time in the United States in 1819, when waves of enthusiastic speculation (expectations of rapidly rising prices) in land and commodities gave way to drops in prices.

THE LAND OFFICE BUSINESS

In the early nineteenth century, people poured into the territories west of the long-settled eastern seaboard. Among them were speculators seeking to buy cheap parcels from the federal government in anticipation of a rise in prices. The Ohio Country in the Northwest Territory appeared to offer the best prospects for many in the East, especially New Englanders. The result was "Ohio fever," as thousands traveled there to reap the benefits of settling in this newly available territory (**Figure 9.7**).



Figure 9.7 Cartographer John Cary drew this map “exhibiting The Western Territory, Kentucky, Pennsylvania, Maryland, Virginia &c” for his 1808 atlas; it depicted the huge western territory that fascinated settlers in the early nineteenth century.

The federal government oversaw the orderly transfer of public land to citizens at public auctions. The Land Law of 1796 applied to the territory of Ohio after it had been wrested from Indians. Under this law, the United States would sell a minimum parcel of 640 acres for \$2 an acre. The Land Law of 1800 further encouraged land sales in the Northwest Territory by reducing the minimum parcel size by half and enabling sales on credit, with the goal of stimulating settlement by ordinary farmers. The government created land offices to handle these sales and established them in the West within easy reach of prospective landowners. They could thus purchase land directly from the government, at the price the government had set. Buyers were given low interest rates, with payments that could be spread over four years. Surveyors marked off the parcels in straight lines, creating a landscape of checkerboard squares.

The future looked bright for those who turned their gaze on the land in the West. Surveying, settling, and farming, turning the wilderness into a profitable commodity, gave purchasers a sense of progress. A uniquely American story of settling the land developed: hardy individuals wielding an axe cleared it, built a log cabin, and turned the frontier into a farm that paved the way for mills and towns (**Figure 9.8**).



Figure 9.8 Thomas Cole, who painted *Home in the Woods* in 1847, was an American artist. Cole founded the Hudson River School, a style renowned for portrayals of landscapes and wilderness influenced by the emotional aesthetic known as romanticism. In what ways is this image realistic, and how is it idealized or romanticized?

MY STORY

✿ *A New Englander Heads West*

A native of Vermont, Gershom Flagg was one of thousands of New Englanders who caught “Ohio fever.” In this letter to his brother, Azariah Flagg, dated August 3, 1817, he describes the hustle and bustle of the emerging commercial town of Cincinnati.

DEAR BROTHER,

Cincinnati is an incorporated City. It contained in 1815, 1,100 buildings of different descriptions among which are above 20 of Stone 250 of brick & 800 of Wood. The population in 1815 was 6,500. There are about 60 Mercantile stores several of which are wholesale. Here are a great share of Mechanics of all kinds.

Here is one Woolen Factory four Cotton factories but not now in operation. A most stupendously large building of Stone is likewise erected immediately on the bank of the River for a steam Mill. It is nine stories high at the Waters edge & is 87 by 62 feet. It drives four pair of Stones besides various other Machinery as Wool carding &c &c. There is also a valuable Steam Saw Mill driving four saws also an inclined Wheel or Saw Mill with two saws, one Glass Factory. The town is Rapidly increasing in Wealth & population. Here is a Branch of the United States Bank and three other banks & two Printing offices. The country around is rich. .

That you may all be prospered in the world is the anxious wish of your affectionate Brother
GERSHOM FLAGG

What caught Flagg's attention? From your reading of this letter and study of the engraving below (Figure 9.9), what impression can you take away of Cincinnati in 1817?



Figure 9.9 This engraving from *A Topographical Description of the State of Ohio, Indiana Territory, and Louisiana* (1812), by Jervis Cutler, presents a view of Cincinnati as it may have looked to Gershom Flagg.

Click and Explore



Learn more about settlement of and immigration to the Northwest Territory by exploring the National Park Service's **Historic Resource Study** (<http://openstaxcollege.org//15LincMemorial>) related to the Lincoln Boyhood National Memorial. According to the guide's maps, what lands were available for purchase?

THE PANIC OF 1819

The first major economic crisis in the United States after the War of 1812 was due, in large measure, to factors in the larger Atlantic economy. It was made worse, however, by land speculation and poor banking practices at home. British textile mills voraciously consumed American cotton, and the devastation of the Napoleonic Wars made Europe reliant on other American agricultural commodities such as wheat. This drove up both the price of American agricultural products and the value of the land on which staples such as cotton, wheat, corn, and tobacco were grown.

Many Americans were struck with “land fever.” Farmers strove to expand their acreage, and those who lived in areas where unoccupied land was scarce sought holdings in the West. They needed money to purchase this land, however. Small merchants and factory owners, hoping to take advantage of this boom time, also sought to borrow money to expand their businesses. When existing banks refused to lend money to small farmers and others without a credit history, state legislatures chartered new banks to meet the demand. In one legislative session, Kentucky chartered forty-six. As loans increased, paper money from new state banks flooded the country, creating inflation that drove the price of land and goods still higher. This, in turn, encouraged even more people to borrow money with which to purchase land or to expand or start their own businesses. Speculators took advantage of this boom in the sale of land by purchasing property not to live on, but to buy cheaply and resell at exorbitant prices.

During the War of 1812, the Bank of the United States had suspended payments in specie, “hard money” usually in the form of gold and silver coins. When the war ended, the bank continued to issue only paper banknotes and to redeem notes issued by state banks with paper only. The newly chartered banks also adopted this practice, issuing banknotes in excess of the amount of specie in their vaults. This shaky economic scheme worked only so long as people were content to conduct business with paper money and refrain from demanding that banks instead give them the gold and silver that was supposed to back it. If large numbers of people, or banks that had loaned money to other banks, began to demand specie payments, the banking system would collapse, because there was no longer enough specie to support the amount of paper money the banks had put into circulation. So terrified were bankers that customers would demand gold and silver that an irate bank employee in Ohio stabbed a customer who had the audacity to ask for specie in exchange for the banknotes he held.

In an effort to bring stability to the nation’s banking system, Congress chartered the Second Bank of the United States (a revival of Alexander Hamilton’s national bank) in 1816. But this new institution only compounded the problem by making risky loans, opening branches in the South and West where land fever was highest, and issuing a steady stream of Bank of the United States notes, a move that increased inflation and speculation.

The inflated economic bubble burst in 1819, resulting in a prolonged economic depression or severe downturn in the economy called the Panic of 1819. It was the first economic depression experienced by the American public, who panicked as they saw the prices of agricultural products fall and businesses fail. Prices had already begun falling in 1815, at the end of the Napoleonic Wars, when Britain began to

“dump” its surplus manufactured goods, the result of wartime overproduction, in American ports, where they were sold for low prices and competed with American-manufactured goods. In 1818, to make the economic situation worse, prices for American agricultural products began to fall both in the United States and in Europe; the overproduction of staples such as wheat and cotton coincided with the recovery of European agriculture, which reduced demand for American crops. Crop prices tumbled by as much 75 percent.

This dramatic decrease in the value of agricultural goods left farmers unable to pay their debts. As they defaulted on their loans, banks seized their property. However, because the drastic fall in agricultural prices had greatly reduced the value of land, the banks were left with farms they were unable to sell. Land speculators lost the value of their investments. As the countryside suffered, hard-hit farmers ceased to purchase manufactured goods. Factories responded by cutting wages or firing employees.

In 1818, the Second Bank of the United States needed specie to pay foreign investors who had loaned money to the United States to enable the country to purchase Louisiana. The bank began to call in the loans it had made and required that state banks pay their debts in gold and silver. State banks that could not collect loan payments from hard-pressed farmers could not, in turn, meet their obligations to the Second Bank of the United States. Severe consequences followed as banks closed their doors and businesses failed. Three-quarters of the work force in Philadelphia was unemployed, and charities were swamped by thousands of newly destitute people needing assistance. In states with imprisonment for debt, the prison population swelled. As a result, many states drafted laws to provide relief for debtors. Even those at the top of the social ladder were affected by the Panic of 1819. Thomas Jefferson, who had cosigned a loan for a friend, nearly lost Monticello when his acquaintance defaulted, leaving Jefferson responsible for the debt.

In an effort to stimulate the economy in the midst of the economic depression, Congress passed several acts modifying land sales. The Land Law of 1820 lowered the price of land to \$1.25 per acre and allowed small parcels of eighty acres to be sold. The Relief Act of 1821 allowed Ohioans to return land to the government if they could not afford to keep it. The money they received in return was credited toward their debt. The act also extended the credit period to eight years. States, too, attempted to aid those faced with economic hard times by passing laws to prevent mortgage foreclosures so buyers could keep their homes. Americans made the best of the opportunities presented in business, in farming, or on the frontier, and by 1823 the Panic of 1819 had ended. The recovery provided ample evidence of the vibrant and resilient nature of the American people.

ENTREPRENEURS AND INVENTORS

The volatility of the U.S. economy did nothing to dampen the creative energies of its citizens in the years before the Civil War. In the 1800s, a frenzy of entrepreneurship and invention yielded many new products and machines. The republic seemed to be a laboratory of innovation, and technological advances appeared unlimited.

One of the most influential advancements of the early nineteenth century was the cotton engine or gin, invented by Eli Whitney and patented in 1794. Whitney, who was born in Massachusetts, had spent time in the South and knew that a device to speed up the production of cotton was desperately needed so cotton farmers could meet the growing demand for their crop. He hoped the cotton gin would render slavery obsolete. Whitney’s seemingly simple invention cleaned the seeds from the raw cotton far more quickly and efficiently than could slaves working by hand (Figure 9.10). The raw cotton with seeds was placed in the cotton gin, and with the use of a hand crank, the seeds were extracted through a carding device that aligned the cotton fibers in strands for spinning.



Figure 9.10 *The First Cotton-Gin*, an 1869 drawing by William L. Sheppard, shows the first use of a cotton gin “at the close of the last century.” African American slaves handle the gin while white men conduct business in the background. What do you think the artist was trying to convey with this image? (credit: Library of Congress)

Whitney also worked on machine tools, devices that cut and shaped metal to make standardized, interchangeable parts for other mechanical devices like clocks and guns. Whitney’s machine tools to manufacture parts for muskets enabled guns to be manufactured and repaired by people other than skilled gunsmiths. His creative genius served as a source of inspiration for many other American inventors.

Another influential new technology of the early 1800s was the steamship engine, invented by Robert Fulton in 1807. Fulton’s first steamship, the *Clermont*, used paddle wheels to travel the 150 miles from New York City to Albany in a record time of only thirty-two hours (Figure 9.11). Soon, a fleet of steamboats was traversing the Hudson River and New York Harbor, later expanding to travel every major American river including the mighty Mississippi. By the 1830s there were over one thousand of these vessels, radically changing water transportation by ending its dependence on the wind. Steamboats could travel faster and more cheaply than sailing vessels or keelboats, which floated downriver and had to be poled or towed upriver on the return voyage. Steamboats also arrived with much greater dependability. The steamboat facilitated the rapid economic development of the massive Mississippi River Valley and the settlement of the West.

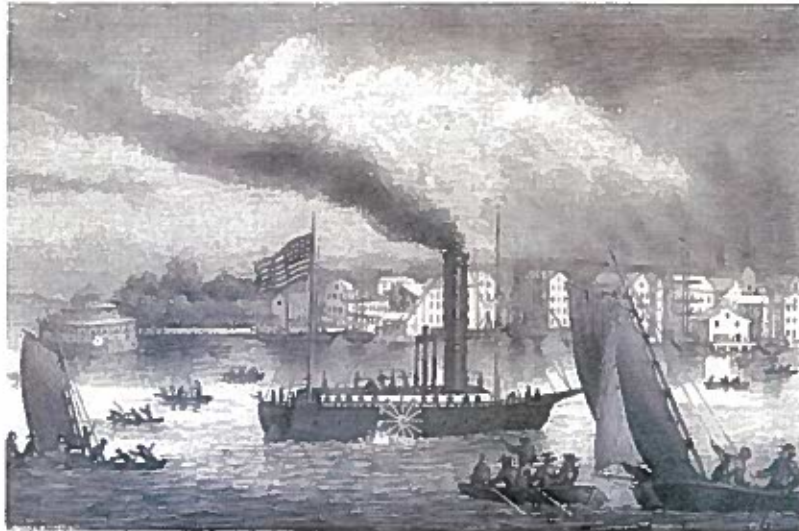


Figure 9.11 Fulton's steamboat the *Clermont* transformed the speed, cost, and dependability of water transportation in the United States. (credit: Project Gutenberg Archives)

Virginia-born Cyrus McCormick wanted to replace the laborious process of using a scythe to cut and gather wheat for harvest. In 1831, he and the slaves on his family's plantation tested a horse-drawn mechanical reaper, and over the next several decades, he made constant improvements to it (**Figure 9.12**). More farmers began using it in the 1840s, and greater demand for the McCormick reaper led McCormick and his brother to establish the McCormick Harvesting Machine Company in Chicago, where labor was more readily available. By the 1850s, McCormick's mechanical reaper had enabled farmers to vastly increase their output. McCormick—and also John Deere, who improved on the design of plows—opened the prairies to agriculture. McCormick's bigger machine could harvest grain faster, and Deere's plow could cut through the thick prairie sod. Agriculture north of the Ohio River became the pantry that would lower food prices and feed the major cities in the East. In short order, Ohio, Indiana, and Illinois all become major agricultural states.

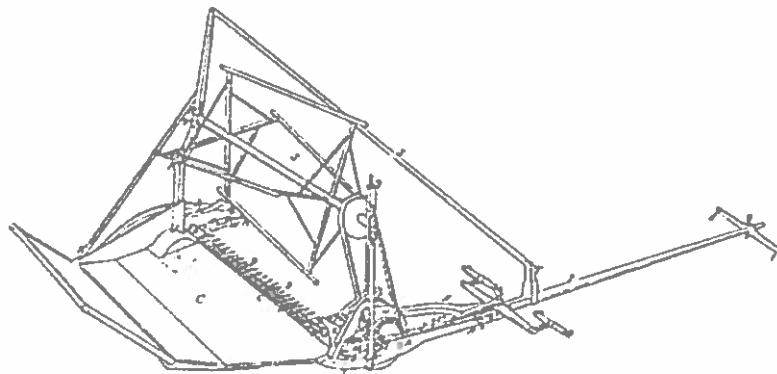


Figure 9.12 This sketch is from the 1845 patent for an improved grain reaper invented by Cyrus Hall McCormick. The reaper mechanized the labor-intensive use of scythes to harvest wheat.

Samuel Morse added the telegraph to the list of American innovations introduced in the years before the Civil War. Born in Massachusetts in 1791, Morse first gained renown as a painter before turning his attention to the development of a method of rapid communication in the 1830s. In 1838, he gave the first public demonstration of his method of conveying electric pulses over a wire, using the basis of what became known as Morse code. In 1843, Congress agreed to help fund the new technology by allocating

\$30,000 for a telegraph line to connect Washington, DC, and Baltimore along the route of the Baltimore and Ohio Railroad. In 1844, Morse sent the first telegraph message on the new link. Improved communication systems fostered the development of business, economics, and politics by allowing for dissemination of news at a speed previously unknown.

9.3 On the Move: The Transportation Revolution

By the end of this section, you will be able to:

- Describe the development of improved methods of nineteenth-century domestic transportation
- Identify the ways in which roads, canals, and railroads impacted Americans' lives in the nineteenth century

Americans in the early 1800s were a people on the move, as thousands left the eastern coastal states for opportunities in the West. Unlike their predecessors, who traveled by foot or wagon train, these settlers had new transport options. Their trek was made possible by the construction of roads, canals, and railroads, projects that required the funding of the federal government and the states.

New technologies, like the steamship and railroad lines, had brought about what historians call the transportation revolution. States competed for the honor of having the most advanced transport systems. People celebrated the transformation of the wilderness into an orderly world of improvement demonstrating the steady march of progress and the greatness of the republic. In 1817, John C. Calhoun of South Carolina looked to a future of rapid internal improvements, declaring, "Let us . . . bind the Republic together with a perfect system of roads and canals." Americans agreed that internal transportation routes would promote progress. By the eve of the Civil War, the United States had moved beyond roads and canals to a well-established and extensive system of railroads.

ROADS AND CANALS

One key part of the transportation revolution was the widespread building of roads and turnpikes. In 1811, construction began on the **Cumberland Road**, a national highway that provided thousands with a route from Maryland to Illinois. The federal government funded this important artery to the West, beginning the creation of a transportation infrastructure for the benefit of settlers and farmers. Other entities built turnpikes, which (as today) charged fees for use. New York State, for instance, chartered turnpike companies that dramatically increased the miles of state roads from one thousand in 1810 to four thousand by 1820. New York led the way in building turnpikes.

Canal mania swept the United States in the first half of the nineteenth century. Promoters knew these artificial rivers could save travelers immense amounts of time and money. Even short waterways, such as the two-and-a-half-mile canal going around the rapids of the Ohio River near Louisville, Kentucky, proved a huge leap forward, in this case by opening a water route from Pittsburgh to New Orleans. The preeminent example was the **Erie Canal (Figure 9.13)**, which linked the Hudson River, and thus New York City and the Atlantic seaboard, to the Great Lakes and the Mississippi River Valley.

With its central location, large harbor, and access to the hinterland via the Hudson River, New York City already commanded the lion's share of commerce. Still, the city's merchants worried about losing ground to their competitors in Philadelphia and Baltimore. Their search for commercial advantage led to the dream of creating a water highway connecting the city's Hudson River to Lake Erie and markets in the West. The result was the Erie Canal. Chartered in 1817 by the state of New York, the canal took seven years to complete. When it opened in 1825, it dramatically decreased the cost of shipping while reducing the time to travel to the West. Soon \$15 million worth of goods (more than \$200 million in today's money)

was being transported on the 363-mile waterway every year.



Figure 9.13 Although the Erie Canal was primarily used for commerce and trade, in *Pittsford on the Erie Canal* (1837), George Harvey portrays it in a pastoral, natural setting. Why do you think the painter chose to portray the canal this way?

Click and Explore



Explore the Erie Canal on [ErieCanal.org](http://eriecanal.org) (<http://openstaxcollege.org//15ErieCanal>) via an interactive map. Click throughout the map for images of and artifacts from this historic waterway.

The success of the Erie Canal led to other, similar projects. The Wabash and Erie Canal, which opened in the early 1840s, stretched over 450 miles, making it the longest canal in North America (**Figure 9.14**). Canals added immensely to the country's sense of progress. Indeed, they appeared to be the logical next step in the process of transforming wilderness into civilization.

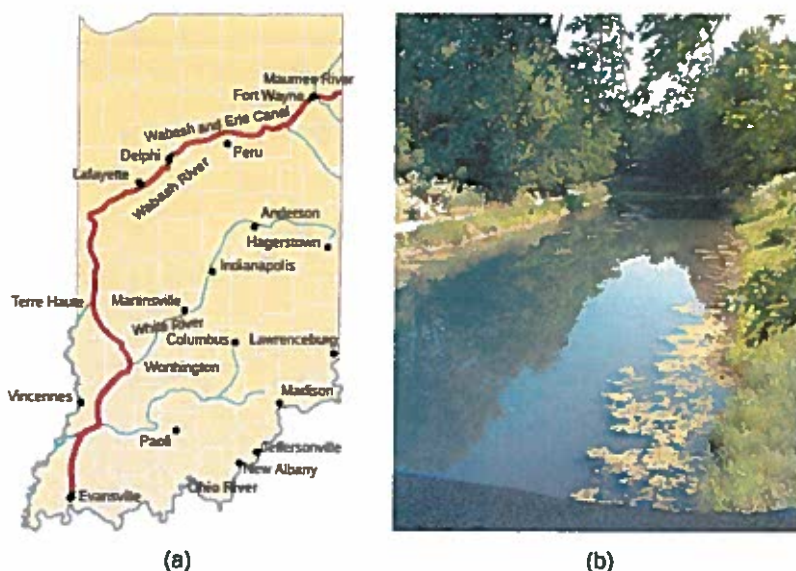


Figure 9.14 This map (a) shows the route taken by the Wabash and Erie Canal through the state of Indiana. The canal began operation in 1843 and boats operated on it until the 1870s. Sections have since been restored, as shown in this 2007 photo (b) from Delphi, Indiana.

Click and Explore



Visit **Southern Indiana Trails** (<http://openstaxcollege.org/l/15WabashEire>) to see historic photographs of the Wabash and Erie Canal.

As with highway projects such as the Cumberland Road, many canals were federally sponsored, especially during the presidency of John Quincy Adams in the late 1820s. Adams, along with Secretary of State Henry Clay, championed what was known as the American System, part of which included plans for a broad range of internal transportation improvements. Adams endorsed the creation of roads and canals to facilitate commerce and develop markets for agriculture as well as to advance settlement in the West.

RAILROADS

Starting in the late 1820s, steam locomotives began to compete with horse-drawn locomotives. The railroads with steam locomotives offered a new mode of transportation that fascinated citizens, buoying their optimistic view of the possibilities of technological progress. The **Mohawk and Hudson Railroad** was the first to begin service with a steam locomotive. Its inaugural train ran in 1831 on a track outside Albany and covered twelve miles in twenty-five minutes. Soon it was traveling regularly between Albany and Schenectady.

Toward the middle of the century, railroad construction kicked into high gear, and eager investors quickly formed a number of railroad companies. As a railroad grid began to take shape, it stimulated a greater demand for coal, iron, and steel. Soon, both railroads and canals crisscrossed the states (**Figure**

9.15), providing a transportation infrastructure that fueled the growth of American commerce. Indeed, the transportation revolution led to development in the coal, iron, and steel industries, providing many Americans with new job opportunities.

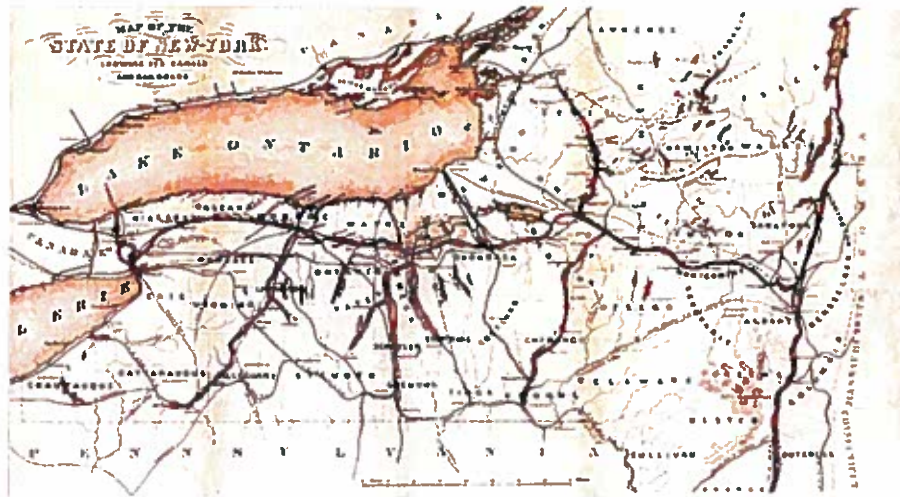


Figure 9.15 This 1853 map of the "Empire State" shows the extent of New York's canal and railroad networks. The entire country's transportation infrastructure grew dramatically during the first half of the nineteenth century.

AMERICANS ON THE MOVE

The expansion of roads, canals, and railroads changed people's lives. In 1786, it had taken a minimum of four days to travel from Boston, Massachusetts, to Providence, Rhode Island. By 1840, the trip took half a day on a train. In the twenty-first century, this may seem intolerably slow, but people at the time were amazed by the railroad's speed. Its average of twenty miles per hour was twice as fast as other available modes of transportation.

By 1840, more than three thousand miles of canals had been dug in the United States, and thirty thousand miles of railroad track had been laid by the beginning of the Civil War. Together with the hundreds of steamboats that plied American rivers, these advances in transportation made it easier and less expensive to ship agricultural products from the West to feed people in eastern cities, and to send manufactured goods from the East to people in the West. Without this ability to transport goods, the market revolution would not have been possible. Rural families also became less isolated as a result of the transportation revolution. Traveling circuses, menageries, peddlers, and itinerant painters could now more easily make their way into rural districts, and people in search of work found cities and mill towns within their reach.

9.4 A New Social Order: Class Divisions

By the end of this section, you will be able to:

- Identify the shared perceptions and ideals of each social class
- Assess different social classes' views of slavery

The profound economic changes sweeping the United States led to equally important social and cultural transformations. The formation of distinct classes, especially in the rapidly industrializing North, was one of the most striking developments. The unequal distribution of newly created wealth spurred new divisions along class lines. Each class had its own specific culture and views on the issue of slavery.

THE ECONOMIC ELITE

Economic elites gained further social and political ascendance in the United States due to a fast-growing economy that enhanced their wealth and allowed distinctive social and cultural characteristics to develop among different economic groups. In the major northern cities of Boston, New York, and Philadelphia, leading merchants formed an industrial capitalist elite. Many came from families that had been deeply engaged in colonial trade in tea, sugar, pepper, slaves, and other commodities and that were familiar with trade networks connecting the United States with Europe, the West Indies, and the Far East. These colonial merchants had passed their wealth to their children.

After the War of 1812, the new generation of merchants expanded their economic activities. They began to specialize in specific types of industry, spearheading the development of industrial capitalism based on factories they owned and on specific commercial services such as banking, insurance, and shipping. Junius Spencer Morgan (Figure 9.16), for example, rose to prominence as a banker. His success began in Boston, where he worked in the import business in the 1830s. He then formed a partnership with a London banker, George Peabody, and created Peabody, Morgan & Co. In 1864, he renamed the enterprise J. S. Morgan & Co. His son, J. P. Morgan, became a noted financier in the later nineteenth and early twentieth century.



Figure 9.16 Junius Spencer Morgan of Boston was one of the fathers of the American private banking system. (credit: Project Gutenberg Archives)

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Visit the **Internet Archive** (<http://openstaxcollege.org/l/15Hunts>) to see scanned pages from *Hunt's Merchant's Magazine and Commercial Review*. This monthly business review provided the business elite with important information about issues pertaining to trade and finance: commodity prices, new laws affecting business, statistics regarding imports and exports, and similar content. Choose three articles and decide how they might have been important to the northern business elite.

Members of the northern business elite forged close ties with each other to protect and expand their

economic interests. Marriages between leading families formed a crucial strategy to advance economic advantage, and the homes of the northern elite became important venues for solidifying social bonds. Exclusive neighborhoods started to develop as the wealthy distanced themselves from the poorer urban residents, and cities soon became segregated by class.

Industrial elites created chambers of commerce to advance their interests; by 1858 there were ten in the United States. These networking organizations allowed top bankers and merchants to stay current on the economic activities of their peers and further strengthen the bonds among themselves. The elite also established social clubs to forge and maintain ties. The first of these, the Philadelphia Club, came into being in 1834. Similar clubs soon formed in other cities and hosted a range of social activities designed to further bind together the leading economic families. Many northern elites worked hard to ensure the transmission of their inherited wealth from one generation to the next. Politically, they exercised considerable power in local and state elections. Most also had ties to the cotton trade, so they were strong supporters of slavery.

The Industrial Revolution led some former artisans to reinvent themselves as manufacturers. These enterprising leaders of manufacturing differed from the established commercial elite in the North and South because they did not inherit wealth. Instead, many came from very humble working-class origins and embodied the dream of achieving upward social mobility through hard work and discipline. As the beneficiaries of the economic transformations sweeping the republic, these newly established manufacturers formed a new economic elite that thrived in the cities and cultivated its own distinct sensibilities. They created a culture that celebrated hard work, a position that put them at odds with southern planter elites who prized leisure and with other elite northerners who had largely inherited their wealth and status.

Peter Cooper provides one example of the new northern manufacturing class. Ever inventive, Cooper dabbled in many different moneymaking enterprises before gaining success in the glue business. He opened his Manhattan glue factory in the 1820s and was soon using his profits to expand into a host of other activities, including iron production. One of his innovations was the steam locomotive, which he invented in 1827 (Figure 9.17). Despite becoming one of the wealthiest men in New York City, Cooper lived simply. Rather than buying an ornate bed, for example, he built his own. He believed respectability came through hard work, not family pedigree.

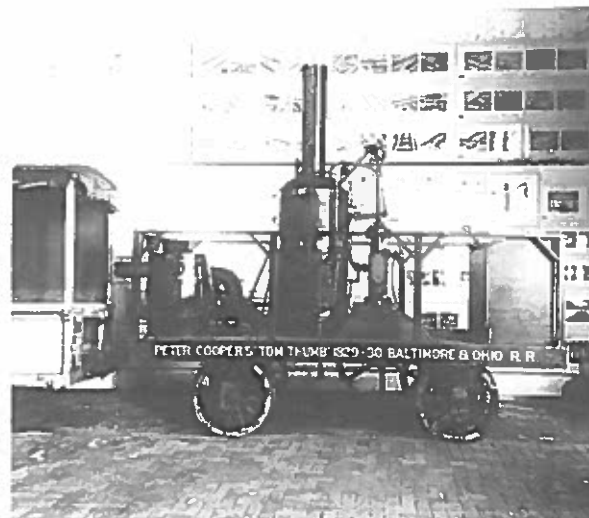


Figure 9.17 Peter Cooper, who would go on to found the Cooper Union for the Advancement of Science and Art in New York City, designed and built the Tom Thumb, the first American-built steam locomotive, a replica of which is shown here.

Those who had inherited their wealth derided self-made men like Cooper, and he and others like him

were excluded from the social clubs established by the merchant and financial elite of New York City. Self-made northern manufacturers, however, created their own organizations that aimed to promote upward mobility. The Providence Association of Mechanics and Manufacturers was formed in 1789 and promoted both industrial arts and education as a pathway to economic success. In 1859, Peter Cooper established the Cooper Union for the Advancement of Science and Art, a school in New York City dedicated to providing education in technology. Merit, not wealth, mattered most according to Cooper, and admission to the school was based solely on ability; race, sex, and family connections had no place. The best and brightest could attend Cooper Union tuition-free, a policy that remained in place until 2014.

THE MIDDLE CLASS

Not all enterprising artisans were so successful that they could rise to the level of the elite. However, many artisans and small merchants, who owned small factories and stores, did manage to achieve and maintain respectability in an emerging middle class. Lacking the protection of great wealth, members of the middle class agonized over the fear that they might slip into the ranks of wage laborers; thus they strove to maintain or improve their middle-class status and that of their children.

To this end, the middle class valued cleanliness, discipline, morality, hard work, education, and good manners. Hard work and education enabled them to rise in life. Middle-class children, therefore, did not work in factories. Instead they attended school and in their free time engaged in “self-improving” activities, such as reading or playing the piano, or they played with toys and games that would teach them the skills and values they needed to succeed in life. In the early nineteenth century, members of the middle class began to limit the number of children they had. Children no longer contributed economically to the household, and raising them “correctly” required money and attention. It therefore made sense to have fewer of them.

Middle-class women did not work for wages. Their job was to care for the children and to keep the house in a state of order and cleanliness, often with the help of a servant. They also performed the important tasks of cultivating good manners among their children and their husbands and of purchasing consumer goods; both activities proclaimed to neighbors and prospective business partners that their families were educated, cultured, and financially successful.

Northern business elites, many of whom owned or had invested in businesses like cotton mills that profited from slave labor, often viewed the institution of slavery with ambivalence. Most members of the middle class took a dim view of it, however, since it promoted a culture of leisure. Slavery stood as the antithesis of the middle-class view that dignity and respectability were achieved through work, and many members of this class became active in efforts to end it.

This class of upwardly mobile citizens promoted temperance, or abstinence from alcohol. They also gave their support to Protestant ministers like George Grandison Finney, who preached that all people possessed **free moral agency**, meaning they could change their lives and bring about their own salvation, a message that resonated with members of the middle class, who already believed their worldly efforts had led to their economic success.

THE WORKING CLASS

The Industrial Revolution in the United States created a new class of wage workers, and this working class also developed its own culture. They formed their own neighborhoods, living away from the oversight of bosses and managers. While industrialization and the market revolution brought some improvements to the lives of the working class, these sweeping changes did not benefit laborers as much as they did the middle class and the elites. The working class continued to live an often precarious existence. They suffered greatly during economic slumps, such as the Panic of 1819.

Although most working-class men sought to emulate the middle class by keeping their wives and children out of the work force, their economic situation often necessitated that others besides the male head of the

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Visit **The Lost Museum** (<http://openstaxcollege.org//15LostMuseum>) to take a virtual tour of P. T. Barnum's incredible museum.

Wage workers in the North were largely hostile to the abolition of slavery, fearing it would unleash more competition for jobs from free blacks. Many were also hostile to immigration. The pace of immigration to the United States accelerated in the 1840s and 1850s as Europeans were drawn to the promise of employment and land in the United States. Many new members of the working class came from the ranks of these immigrants, who brought new foods, customs, and religions. The Roman Catholic population of the United States, fairly small before this period, began to swell with the arrival of the Irish and the Germans.

Key Terms

artisan skilled, experienced worker who produces specialized goods by hand

Cumberland Road a national highway that provided thousands with a route from Maryland to Illinois

deskilling breaking an artisanal production process into smaller steps that unskilled workers can perform

Erie Canal a canal that connected the Hudson River to Lake Erie and markets in the West

free moral agency the freedom to change one's own life and bring about one's own salvation

labor theory of value an economic theory holding that profits from the sale of the goods produced by workers should be equitably distributed to those workers

land offices sites where prospective landowners could buy public land from the government

machine tools machines that cut and shape metal to produce standardized, interchangeable parts for mechanical devices such as clocks or guns

Mohawk and Hudson Railroad the first steam-powered locomotive railroad in the United States

putting-out system a labor system whereby a merchant hired different families to perform specific tasks in a production process

specie "hard" money, usually in the form of gold and silver coins

Working Men's Party a political group that radically opposed what they viewed as the exploitation of workers

Summary

9.1 Early Industrialization in the Northeast

Industrialization led to radical changes in American life. New industrial towns, like Waltham, Lowell, and countless others, dotted the landscape of the Northeast. The mills provided many young women an opportunity to experience a new and liberating life, and these workers relished their new freedom. Workers also gained a greater appreciation of the value of their work and, in some instances, began to question the basic fairness of the new industrial order. The world of work had been fundamentally reorganized.

9.2 A Vibrant Capitalist Republic

The selling of the public domain was one of the key features of the early nineteenth century in the United States. Thousands rushed west to take part in the bounty. In the wild frenzy of land purchases and speculation in land, state banks advanced risky loans and created unstable paper money not backed by gold or silver, ultimately leading to the Panic of 1819. The ensuing economic depression was the first in U.S. history. Recovery came in the 1820s, followed by a period of robust growth. In this age of entrepreneurship, in which those who invested their money wisely in land, business ventures, or technological improvements reaped vast profits, inventors produced new wonders that transformed American life.