



SECTION
4

The Market Revolution

MAIN IDEA

Inventions and economic developments in the early 19th century helped transform American society.

WHY IT MATTERS NOW

The market revolution and free enterprise system that took hold during this period still drive the nation's economy today.

Terms & Names

- market revolution
- free enterprise
- entrepreneurs
- Samuel F. B. Morse
- Lowell textile mills
- strike
- immigration
- National Trades' Union
- *Commonwealth v. Hunt*

One American's Story

At sunrise on July 4, 1817, a cannon blast from the United States arsenal in Rome, New York, announced the groundbreaking for the Erie Canal. With visiting dignitaries and local residents in attendance, Samuel Young opened the ceremony.

A PERSONAL VOICE SAMUEL YOUNG

“We have assembled to commence the excavation of the Erie Canal. This work when accomplished will connect our western inland seas with the Atlantic Ocean. . . . By this great highway, unborn millions will easily transport their surplus productions to the shores of the Atlantic, procure their supplies, and hold a useful and profitable intercourse with all the maritime nations of the earth. . . . Let us proceed then to the work, animated by the prospect of its speedy accomplishment, and cheered with the anticipated benedictions of a grateful posterity.”

—quoted in *Erie Water West*

When the canal was completed, it stretched 363 miles from Albany, New York, to Lake Erie. The human-made waterway ushered in a new era, in which technology and improved transportation sent new products to markets across the United States.



▲ A lock on the Erie Canal in Lockport, New York, shown here in an 1838 engraving, was one of 83 that helped link the Great Lakes with the Northeast.

The Market Revolution

Changes like those brought by the Erie Canal contributed to vast economic changes in the first half of the 19th century in the United States. In this period, known as the **market revolution**, people increasingly bought and sold goods rather than make them for themselves.

U.S. MARKETS EXPAND Over a few decades, buying and selling multiplied while incomes rose. In the 1840s alone, the national economy grew more than it had in the first 40 years of the century. The quickening pace of U.S. economic growth coincided with the growth of **free enterprise**—the freedom of private businesses to operate competitively for profit with little government regulation.

In their pursuit of profit, businessmen called **entrepreneurs**, from a French word that means “to undertake,” invested their own money in new industries. In doing this, entrepreneurs risked losing their investment if a venture failed, but they also stood to earn huge profits if it succeeded. **A**

INVENTIONS AND IMPROVEMENTS Inventor-entrepreneurs began to develop goods to make life more comfortable for more people. While some inventions simply made life more enjoyable, others fueled the economic revolution and transformed manufacturing, transportation, and communication.

New communication links began to put people into instant contact with one another. In 1837, **Samuel F. B. Morse**, a New England artist, patented the telegraph, which sent messages in code over a wire in a matter of seconds. Businesses used the new communication device to transmit orders and relay up-to-date

information on prices and sales. The new railroads employed the telegraph to keep trains moving regularly and to warn engineers of safety hazards. By 1854, 23,000 miles of telegraph wire crossed the country.

Meanwhile, better transportation systems improved the movement of people and goods. In 1807, Pennsylvanian Robert Fulton had ushered in the steamboat era when his boat, the *Clermont*, made the 150-mile trip up the Hudson River from New York City to Albany in 32 hours, a remarkable speed for that era. By 1830, 200 steamboats traveled the nation’s western rivers that flowed into the Mississippi River. Steamboats slashed freight rates as well as voyage times.

Water transport was particularly important in moving raw materials such as lead, copper, and heavy

MAIN IDEA

Synthesizing

A How did entrepreneurs contribute to the market revolution?

NOW & THEN

FROM TELEGRAPH TO INTERNET

What do the telegraph and the Internet have in common? They are both tools for instant communication. While the telegraph relied on a network of wires that spanned the country, the Internet—an international network of smaller computer networks—allows any computer user to communicate instantly with any other computer user in the world.

MORSE CODE In 1837 Samuel Morse patents the telegraph, the first instant electronic communicator. Morse taps on a key to send bursts of electricity down a wire to the receiver, where an operator “translates” the coded bursts into understandable language within seconds.



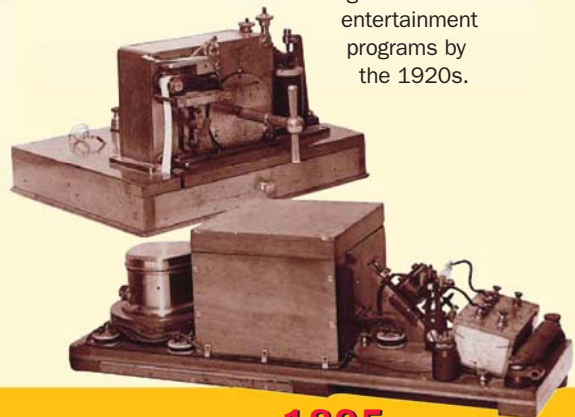
1837

TELEPHONE In 1876 Alexander Graham Bell invents the telephone, which relies on a steady stream of electricity, rather than electrical bursts, to transmit sounds. By 1900, there are over one million telephones in the United States.



1876

MARCONI RADIO In 1895, Guglielmo Marconi, an Italian inventor, sends telegraph code through the air as electromagnetic waves. By the early 1900s, “the wireless” makes voice transmissions possible. Commercial radio stations are broadcasting music and entertainment programs by the 1920s.



1895

machinery. Where waterways didn't exist, Americans made them by building canals. By the 1840s, America boasted more than 3,300 miles of canals.

Canals, however, soon gave way to railroads, which offered the important advantage of speed as well as winter travel. Developed in England in the early 1800s, steam-powered locomotives began operating in the United States in the 1830s. By 1850, over 9,000 miles of track had been laid across the United States.

THE MARKET REVOLUTION TRANSFORMS THE NATION Although most Americans during the early 1800s still lived in rural areas and only 14 percent of workers had manufacturing jobs, these workers produced more and better goods at lower prices than ever before. Many of these goods became affordable for ordinary Americans, and improvements in transportation allowed people to purchase items manufactured in distant places.

By the 1840s, improved transportation and communication also made America's regions more interdependent. Steamboats went up as well as down the Mississippi, linking North to South. The Erie Canal, and eventually railroads and telegraph wires, soon linked the East and the West.

Heavy investment in canals and railroads transformed the Northeast into the center of American commerce. As the Northeast began to industrialize, many people then moved away to farm the fertile soil of the Midwest. They employed new machines, such as the John Deere steel plow, for cultivating the tough prairie sod, and Cyrus McCormick's reaper, for harvesting grain. Meanwhile, most of the South remained agricultural and relied on such crops as cotton, tobacco, and rice. **B**

MAIN IDEA

Summarizing

B How did technology influence both the North and the Midwest in the 1840s?

Changing Workplaces

The new market economy in the United States did not only affect what people bought and sold, it also changed the ways Americans worked. Moving production from the home to the factory split families, created new communities, and transformed relationships between employers and employees.

By the mid-19th century, new machines allowed unskilled workers to perform tasks that once had taken the effort of trained artisans. To do this work, though, workers needed factories.

TELEVISION In the late 1800s, scientists begin to experiment with transmitting pictures as well as words through the air. In 1923 Vladimir Zworykin, a Russian-born American scientist, files a patent for the iconoscope, the first television camera tube suitable for broadcasting, and in 1924 for the kinescope, the picture tube used in receiving television signals. In 1929, Zworykin demonstrated the first all-electronic television.



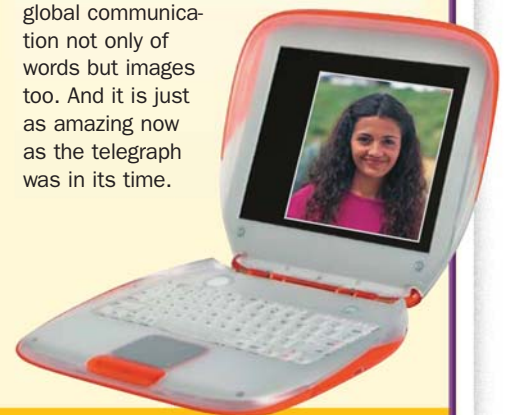
1929

COMPUTERS Scientists develop electronically powered computers during the 1940s. In 1951, UNIVAC I (UNIVersal Advanced Computer) becomes the first commercially available computer. In 1964, IBM initiates System/360, a family of mutually compatible computers that allow several terminals to be attached to one computer system.



1964

INTERNET Today, on the Internet, through e-mail (electronic mail) or online conversation, any two people can have instant dialogue. The Internet becomes the modern tool for instant global communication not only of words but images too. And it is just as amazing now as the telegraph was in its time.



2000

THE LOWELL TEXTILE MILLS In the 1820s, a group of entrepreneurs built several large textile mills in Lowell, Massachusetts. The **Lowell textile mills** soon became booming enterprises. Thousands of people, mostly women, left family farms to find work in Lowell.

Mill owners sought female employees because women provided an abundant source of labor and owners could pay lower wages to women than men. To the girls in the mills, though, textile work offered better pay than their main alternatives: teaching, sewing, and domestic work. In letters written in 1846 to her father in New Hampshire, 16-year-old Mary Paul expressed her satisfaction with her situation at Lowell.

A PERSONAL VOICE MARY PAUL

“I have a very good boarding place, have enough to eat. . . . The girls are all kind and obliging. . . . I think that the factory is the best place for me and if any girl wants employment, I advise them to come to Lowell.”

—quoted in *Women and the American Experience*



▲ A young mill girl from around 1840. Her swollen hands suggest that she worked as a warper, someone who straightened the strands of cotton or wool as they entered the loom.

Before long, however, work conditions deteriorated. The workday at Lowell was more than 12 hours long. In addition, mills often were dark, hot, and cramped. Factory owners often showed little sympathy for the plight of workers. In the mid-1840s one mill manager said, “I regard my workpeople just as I regard my machinery. So long as they can do my work for what I choose to pay them, I keep them, getting out of them all I can.” **C**

MAIN IDEA

Making Inferences

C What was the attitude of many factory owners toward their workers?

Workers Seek Better Conditions

As industry grew, strikes began to break out when workers protested poor working conditions and low wages.

WORKERS STRIKE In 1834, when the Lowell mills announced a 15 percent wage cut, 800 mill girls organized a **strike**, a work stoppage to force an employer to respond to demands. Criticized by the Lowell press and clergy, most of the strikers agreed to return to work at reduced wages. The mill owners fired the strike leader. In 1836, Lowell mill workers struck again, but as in 1834, the company won, and most of the strikers returned to their jobs.

Although only 1 or 2 percent of workers in the United States were organized, the 1830s and 1840s saw dozens of strikes—many for higher wages, but some for shorter hours. Employers defeated most of these strikes because they could easily replace unskilled workers with people recently arrived from Europe who desperately needed jobs. **D**

IMMIGRATION INCREASES European **immigration**, leaving one country and settling in another, rose dramatically in the United States between 1830 and 1860. Between 1845 and 1854 alone, nearly 3 million immigrants were added to the population. More than 1 million were Irish immigrants, who fled their homeland after a disease on potatoes caused the Great Potato Famine and led to mass starvation.

Irish immigrants faced prejudice, both because they were Roman Catholic and because they were poor. Frightened by allegations of a Catholic conspiracy to take over the country, Protestant mobs in big cities constantly harassed them. Other workers resented the Irish for their willingness to work as cheap labor, a willingness that made them more desirable to employers.

MAIN IDEA

Summarizing

D Why were most labor strikes of the 1880s and 1840s ineffective?

Background

During the Great Potato Famine of 1845–1849, about 1,000,000 Irish died of starvation and disease.



▲ European immigrants arriving in New York City (from a colored engraving made in 1858)

NATIONAL TRADES' UNION Amid the growing labor unrest in the 1830s, the trade unions in different towns began to join together to expand their power. Journeymen's organizations from several industries united in 1834 to form the **National Trades' Union**. The national trade union movement faced fierce opposition from bankers and owners. In addition, workers' efforts to organize were at first hampered by court decisions declaring strikes illegal. In 1842, however, the Massachusetts Supreme Court supported the workers' right to strike in the case of **Commonwealth v. Hunt**.

The workplace was not the only area of American life that experienced unrest in the mid-19th century. Indeed, a series of religious and social reform movements went hand in hand with these economic changes.

SECTION
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ASSESSMENT

1. TERMS & NAMES For each term or name, write a sentence explaining its significance.

- market revolution
- Samuel F. B. Morse
- strike
- National Trades' Union
- free enterprise
- Lowell textile mills
- immigration
- Commonwealth v. Hunt
- entrepreneurs

MAIN IDEA

2. TAKING NOTES

Create a time line like the one below on which you label and date important developments in manufacturing during the early 19th century.



Write a paragraph explaining which development was most important and why.

CRITICAL THINKING

3. ANALYZING ISSUES

Do you think the positive effects of mechanizing the manufacturing process outweighed the negative effects? Why or why not?

Think About:

- changes in job opportunities for unskilled laborers
- changes in employer-employee relationships
- working conditions in factories
- the cost of manufactured goods

4. ANALYZING PRIMARY SOURCES

A 20th-century historian said of the 1820s: "It was the miraculous machinery of the times . . . which made it obvious that things were getting better all the time." How do you think the people you have read about in this chapter would have responded to that statement?