

# The Worlds of North and South

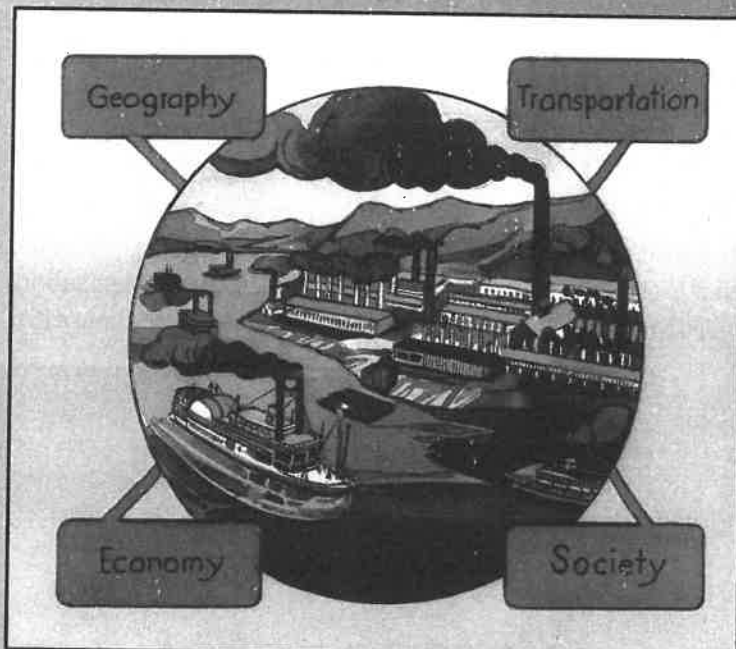
## 19.1 Introduction

**E**li Whitney, a young man from Massachusetts, listened politely to the Georgia planters' complaints. Tobacco prices were low, and rice and indigo prices weren't much better. Cotton grew well, but cleaning the seeds out of cotton fibers was a big problem. A slave picking out seeds by hand could clean only a few pounds a day. At that rate, even using cheap slave labor, there was no profit in raising cotton. Unless something changed, the future of farming in the South looked bleak.

As the planters talked, a solution to their problem began to take shape in Whitney's head. While growing up in Massachusetts, Whitney had revealed a gift for invention. As a boy, he had found a way to manufacture nails more quickly than by hand. From nails, he had gone on to hat pins and men's canes. After graduating from college in 1792, Whitney went to Georgia to work as a tutor. Instead of tutoring, however, he became intrigued by the problem of cotton cleaning and, he wrote, "struck out a plan of a machine in my mind."

The result, as you will read, was a simple but brilliant invention that changed life in both the North and the South—but in very different ways. This probably did not surprise Whitney. As a northerner living in the South, he had already noticed many differences between the two sections of the country.

Northerners and southerners shared the same language and worshipped in the same kinds of churches. They shared a fierce pride in their country and a faith in democracy. Yet their outlooks and attitudes about many things were quite different. The two sections also differed in other ways, including their economies, transportation systems, and societies. Between 1800 and 1850, these differences led to sharply conflicting views on many national issues—so much so that, at times, northerners and southerners seemed to be living in two separate worlds.



### Graphic Organizer: Spoke Diagram

You will use spoke diagrams to learn about the worlds of the North and the South.

## 19.2 Geography of the North

**F**rom the rocky shores of Maine to the gently rolling plains of Iowa, the North included a variety of climates and natural features. Northerners adapted to these geographical differences by creating different industries and ways of making a living.

**Climate** All the northern states experienced four very distinct seasons, from frozen winters to hot, humid summers. But the most northerly states, such as Maine and Minnesota, had colder winters and shorter summer growing seasons than states farther south, such as Pennsylvania and Ohio.

**Natural Features** Different areas of the North had distinctive natural features. The jagged New England coast, for example, had hundreds of bays and inlets that were perfect for use as harbors. Shipbuilding, fishing, and commerce flourished in this area, while towns such as Boston became busy seaports.

Inland from the sea lay a narrow, flat plain with a thin covering of rocky soil. Farming was never easy here. Instead, many people turned to trade and crafts. Others moved west in search of better farmland.

New England's hills rose sharply above V-shaped valleys carved by steep streams. The hillsides offered barely enough land for a small farm, but they were covered with thick forests of spruce and fir. New Englanders found that they could make money by harvesting timber. The wood was used for shipbuilding and in trade with other countries.

Farther south in New York, Pennsylvania, and New Jersey, broad rivers like the Hudson and the Delaware had deposited rich soil over wide plains. People living in these areas supported themselves by farming.

Across the Appalachians lay the Central Plains, a large, forested region drained by the Ohio and Mississippi Rivers. The Central Plains boast some of the best agricultural soil on Earth. From Ohio to Illinois, settlers cleared the forests to make way for farms.

Industrious northerners were thus changing the landscape. One result was **deforestation**, or the destruction of forests. By 1850, Americans had cleared about 177,000 square miles of dense forest. And with the growth of industry, the demand for coal and other minerals led to a big increase in mining after about 1820, especially in Pennsylvania.

**deforestation** the clearing away of forests

This photograph shows a section of New England coastline. What geographic features can you identify?



## 19.3 Geography of the South

The South extended from Maryland south to the tip of Florida, and from the Atlantic Coast west to Louisiana and Texas. This section's climate and natural features encouraged southerners to base their way of life on agriculture.

**Climate** Compared to the North, the southern states enjoyed mild winters and long, hot, humid summers. Plentiful rainfall and long growing seasons made this a perfect place for raising warm-weather crops that would have withered and died farther north.

**Natural Features** Wide coastal plains edged the southern shoreline from Chesapeake Bay to the Gulf of Mexico. These fertile lowlands stretched inland for as much as 300 miles in parts of the South.

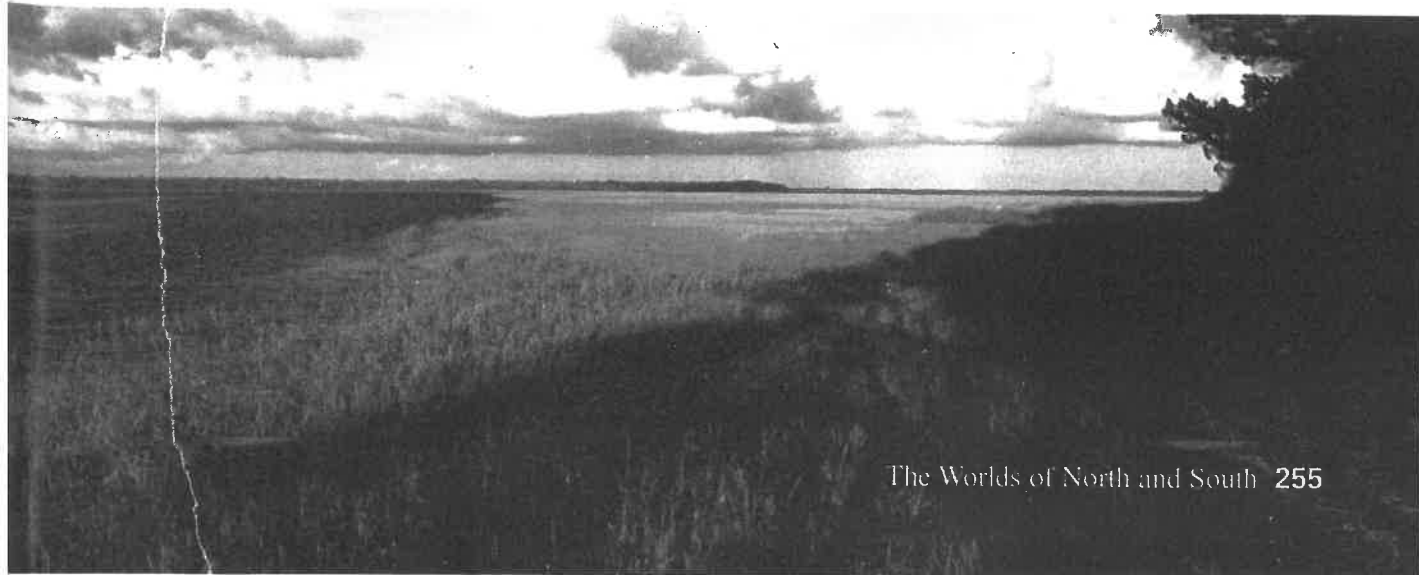
Along the coast, the plains were dotted with swamps and marshes. These damp lowlands were ideal for growing rice and sugarcane, which thrived in warm, soggy soil. Indigo was grown on the dry land above the swamps, and tobacco and corn were farmed farther inland. A visitor to this section noted that "the planters, by the richness of the soil, live [in] the most easy and pleasant manner of any people I have met with."

Above the plains rose the Appalachian Mountains. Settlers who ventured into this rugged backcountry carved farms and orchards out of rolling hills and mountain hollows. Some backcountry farmers were said to "work on land so steep that they keep falling out of their cornfields."

Although most people in the South were farmers, southerners used natural resources in other ways as well. In North Carolina, they harvested thick pine forests for lumber. From Chesapeake Bay in Virginia and Maryland, they gathered fish, oysters, and crabs.

An especially important feature of the South was its broad, flat rivers. Many of the South's earliest towns were built at the mouths of rivers. As people moved away from the coast, they followed the rivers inland, building their homes and farms alongside these water highways. Oceangoing ships could even sail up southern rivers to conduct business right at a planter's private dock. Here, the ships were loaded with tobacco or other cash crops for sale in the Caribbean or Europe.

This photograph shows a southern waterway. What geographic features can you identify?



**agrarian** a person who favors an agricultural way of life and government policies that support agricultural interests

**plantation** a large area of privately owned land where crops were grown through the labor of workers, usually slaves, who lived on the land

**cotton gin** a hand-operated machine that cleans seeds and other unwanted material from cotton

## 19.4 Economy of the South

The South's economy was based on agriculture, and southerners were proud of it. Most white southerners were **agrarians** who favored a way of life based on farming. This was especially true of rich **plantation** owners, who did not have to do the hard work of growing crops themselves.

Although most white southerners worked their own small farms, plantation owners used slaves to grow such cash crops as tobacco, rice, sugarcane, and indigo. By the early 1790s, however, the use of slaves had begun to decline. Europeans were unwilling to pay high prices for tobacco and rice, which they could purchase more cheaply from other British colonies. Cotton was a promising crop, but growers who experimented with it had a hard time making a profit. Until some way was found to clean the seeds out of its fiber easily, cotton was of little value. Discouraged planters were buying fewer slaves, and even letting some go free.

In 1793, a young Yale graduate named Eli Whitney took a job tutoring children on a Georgia plantation. There he saw his first cotton boll. Observing the way cotton was cleaned by hand, Whitney had an idea. "If a machine could be invented that would clean the cotton with expedition [speed]," he wrote his father, "it would be a great thing...to the country."

Whitney set to work. Six months later, he had a working machine that would change the face of the South.

The Granger Collection, New York



**King Cotton** Whitney's "cotton engine," called the **cotton gin** for short, was a simple machine that used rotating combs to separate cotton fiber from its seeds. Using a cotton gin, a single worker could clean as much cotton as 50 laborers working by hand.

Across the South, planters began growing cotton. Within ten years, cotton was the section's most important crop. By 1860, sales of cotton overseas earned more money than all other U.S. exports combined. It was little wonder that many southerners liked to boast, "Cotton is King."

The economy of the South was based on agriculture. After the invention of the cotton gin in 1793, cotton quickly became the most important crop in the South.

**Expanding Demand for Land and Slaves** Raising cotton in the same fields year after year soon wore out the soil. In search of fresh, fertile soil, cotton planters pushed west. By 1850, cotton plantations stretched from the Atlantic Coast to Texas.

Whitney had hoped that his invention would lighten the work of slaves. Instead, it made slavery more important than ever to the South. As cotton spread westward, slavery followed. Between 1790 and 1850, the number of slaves in the South rose from 500,000 to more than 3 million.

With white southerners putting all their money into land and slaves, they had little interest in building factories. As a result, wrote an Alabama newspaper, "We purchase all our luxuries and necessities from the North... the slaveholder dresses in Northern goods, rides in a Northern saddle, sports his Northern carriage, reads Northern books. In Northern vessels his products are carried to market."

One successful southern factory was the Tredegar Iron Works in Richmond, Virginia. Using mostly slave labor, the factory made ammunition and weapons for the U.S. army, as well as steam engines, rails, and locomotives. But the vast majority of white southerners made their living off the land.

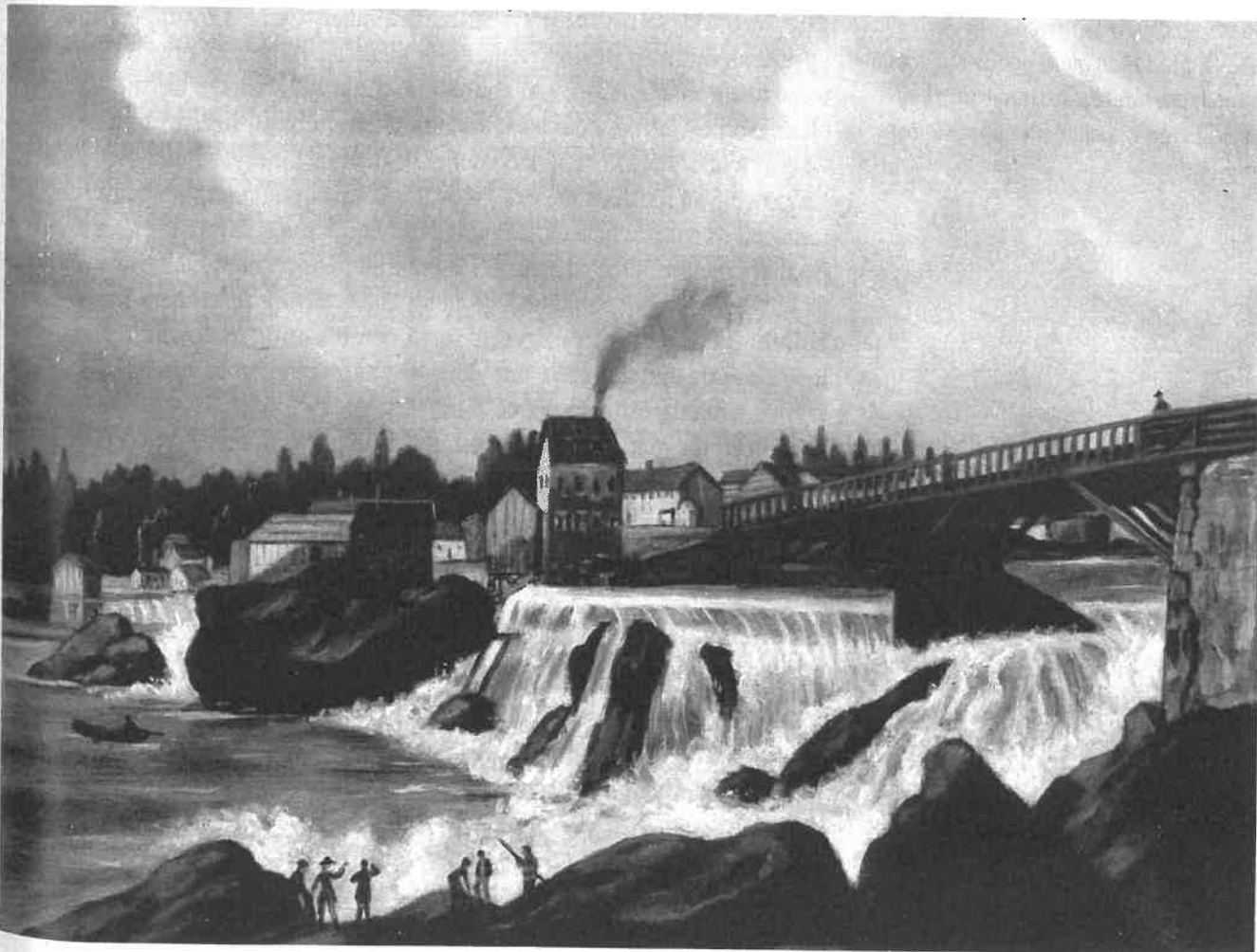
### 19.5 Economy of the North

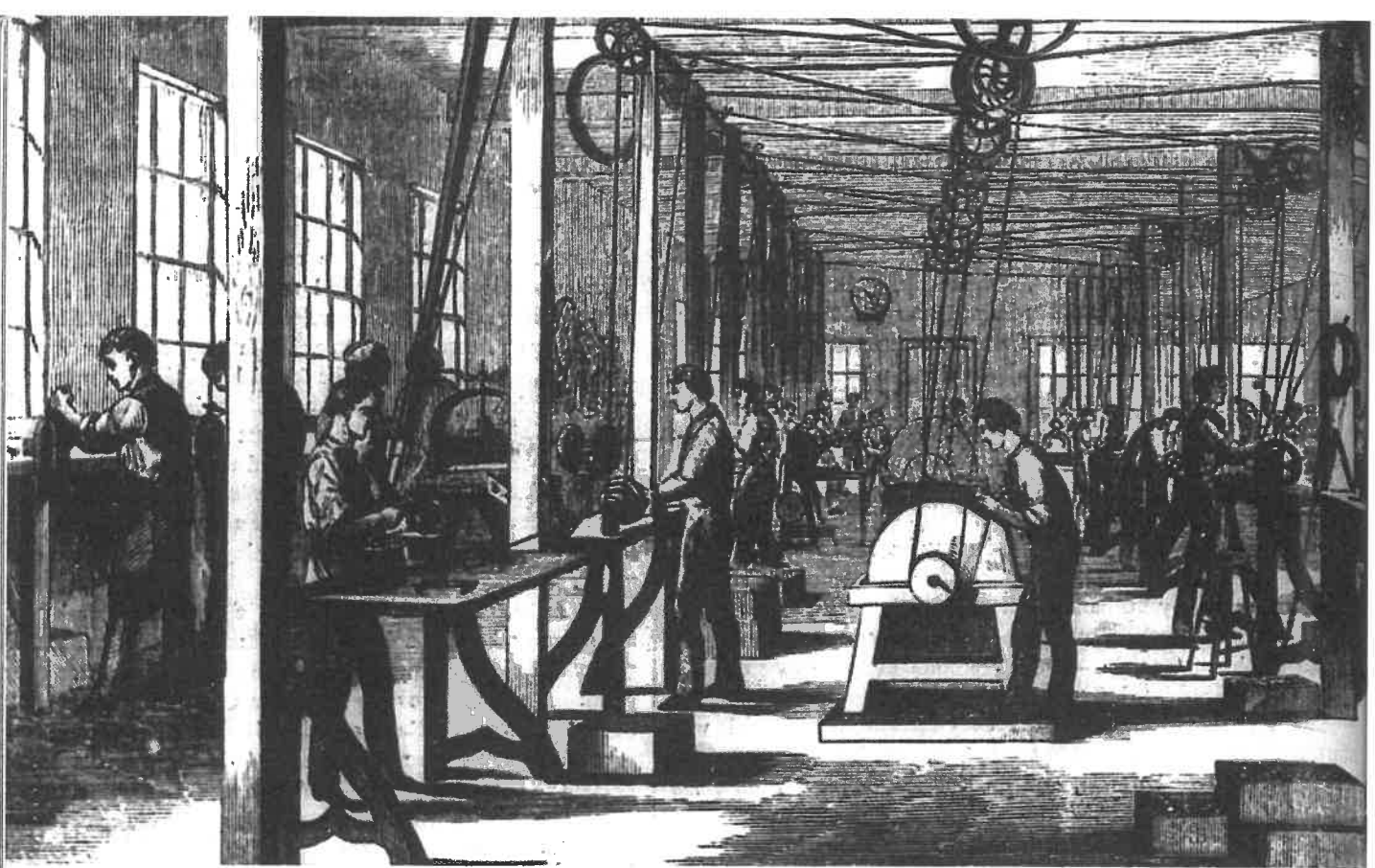
If cotton was king in the South, inventiveness seemed to rule the North. In colonial times, Americans created everything they needed—every shirt or gun—by hand. Beginning in the late 1700s, however, inventors started to devise machines to make products more quickly and cheaply. This shift from hand manufacturing to machines is called the **Industrial Revolution**. It created a new class of wealthy **industrialists** who owned large factories and other businesses based on machines.

**Industrial Revolution** The dramatic change in economies brought about by the use of machines to do work formerly done by hand. The Industrial Revolution began in England in the late 1700s and spread to America and the rest of Europe.

**industrialist** a person whose wealth comes from the ownership of industrial businesses and who favors government policies that support industry

The fast-flowing rivers of the North provided the power source for textile mills like the one in this painting.





Factories, such as the one shown above, produced more goods and made them more affordable. However, they also put many skilled craftspeople out of work.

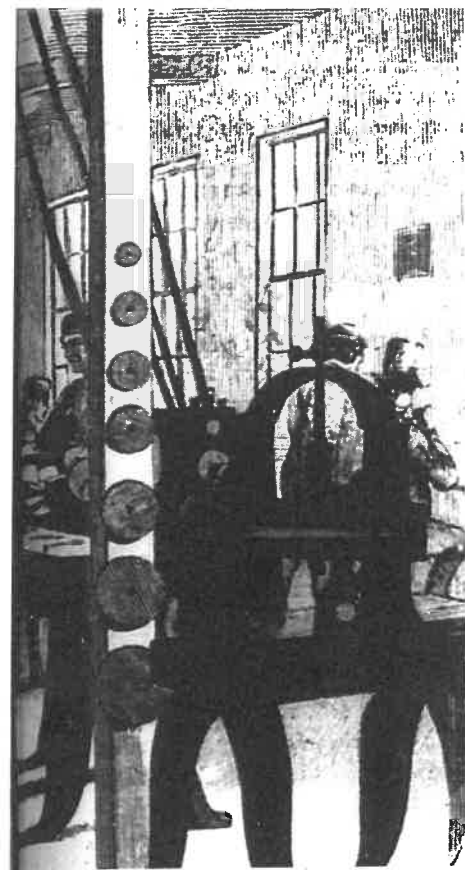
**The Growth of Industry** In 1810, Francis Cabot Lowell, a failing businessman from Boston, visited England. There he saw how mill owners were using machines to spin cotton into thread and weave the threads into cloth. To power these devices, they used fast-moving streams to turn a wheel, which in turn supplied energy to the machinery.

Lowell memorized the design of the British machines. When he returned to Massachusetts, he built even better ones. By 1815, he and his partners had built the first American textile factory, along the Merrimack River. This factory combined spinning and weaving machinery in the same building. One observer marveled that Lowell's mill "took your bale of cotton in at one end and gave out yards of cloth at the other, after goodness knows what digestive process."

To run his machinery, Lowell hired young farmwomen, who jumped at the chance to earn cash wages. The "Lowell girls" toiled 12 to 15 hours each day, with only Sundays off. Soon textile mills were springing up all along other northern rivers.

By the 1830s, inventors had learned to use steam engines to power machinery. With steam engines, businesspeople could build factories anywhere, not just along rivers. Meanwhile, the inventive Eli Whitney showed manufacturers how they could assemble products even more cheaply by making them from identical, interchangeable parts.

New inventions and manufacturing methods made goods cheaper and more plentiful. But they also shifted work from skilled craftspeople to less skilled laborers. When Elias Howe developed the sewing machine, for example, skilled seamstresses could not compete. Some took jobs in garment factories, but they earned much less money working the sewing machines than they had sewing by hand.



For northern industrialists, the new machines and production methods were a source of great wealth. Factory owners tended to favor a strong national government that could promote improvements in manufacturing, trade, and transportation. Southern agrarians, however, looked down on the newly rich industrialists and the laborers who worked for them. Proud southerners called factory workers “wage slaves.” But they also worried that northern interests might grow too powerful and threaten the South’s way of life.

**Machines Make Agriculture More Efficient** The Industrial Revolution changed northern agriculture as well. In 1831, Virginia

farmer Cyrus McCormick built a working model of “a right smart” machine called a *reaper*. A reaper could cut 28 times more grain than a single man using a scythe (a hand tool with a long, curved blade).

In 1847, McCormick built a reaper factory in Chicago. Using interchangeable parts, he was soon producing several thousand reapers a year. By making it easier to harvest large quantities of wheat, inventions like the reaper helped transform the Central Plains into America’s “bread basket.”

Thanks to the Industrial Revolution, the northern economy grew rapidly after 1800. By 1860, the value of manufacturing in the North was ten times greater than in the South.

## 19.6 Transportation in the North

Factory owners needed fast, inexpensive ways to deliver their goods to distant customers. South Carolina congressman John C. Calhoun had a solution. “Let us bind the republic together,” he said, “with a perfect system of roads and canals.” Calhoun called such projects “internal improvements.”

**Building Better Roads** In the early 1800s, most American roads were rutted boneshakers. In 1806, Congress funded the construction of a National Road across the Appalachian Mountains. The purpose of this highway was to tie the new western states with the East. With its smooth gravel surface, the National Road was a joy to travel.

As popular as the National Road was, in 1816 President James Monroe vetoed a bill that would have given states money to build more roads. Monroe argued that spending federal money for internal improvements within a state was unconstitutional.

**Fast Ships and Canals** Even with better roads, river travel was still faster and cheaper than travel by land. But moving upstream, against a river's current, was hard work. To solve this problem, inventors experimented with boats powered by steam engines.

In 1807, Robert Fulton showed that steamboats were practical by racing the steamboat *Clermont* upstream on New York's Hudson River. Said Fulton, "I overtook many boats and passed them as if they had been at anchor." A Dutchman watching the strange craft from the shore shouted, "The devil is on his way up-river with a sawmill on a boat!" By the 1820s, smoke-belching steamboats were chugging up and down major rivers and across the Great Lakes.

Of course, rivers weren't always located where people needed them. In 1817, the state of New York hired engineers and workers to build a 363-mile canal from the Hudson River to Lake Erie. The Erie Canal provided the first all-water link between farms on the Central Plains and East Coast cities. It was so successful that other states built canals as well.

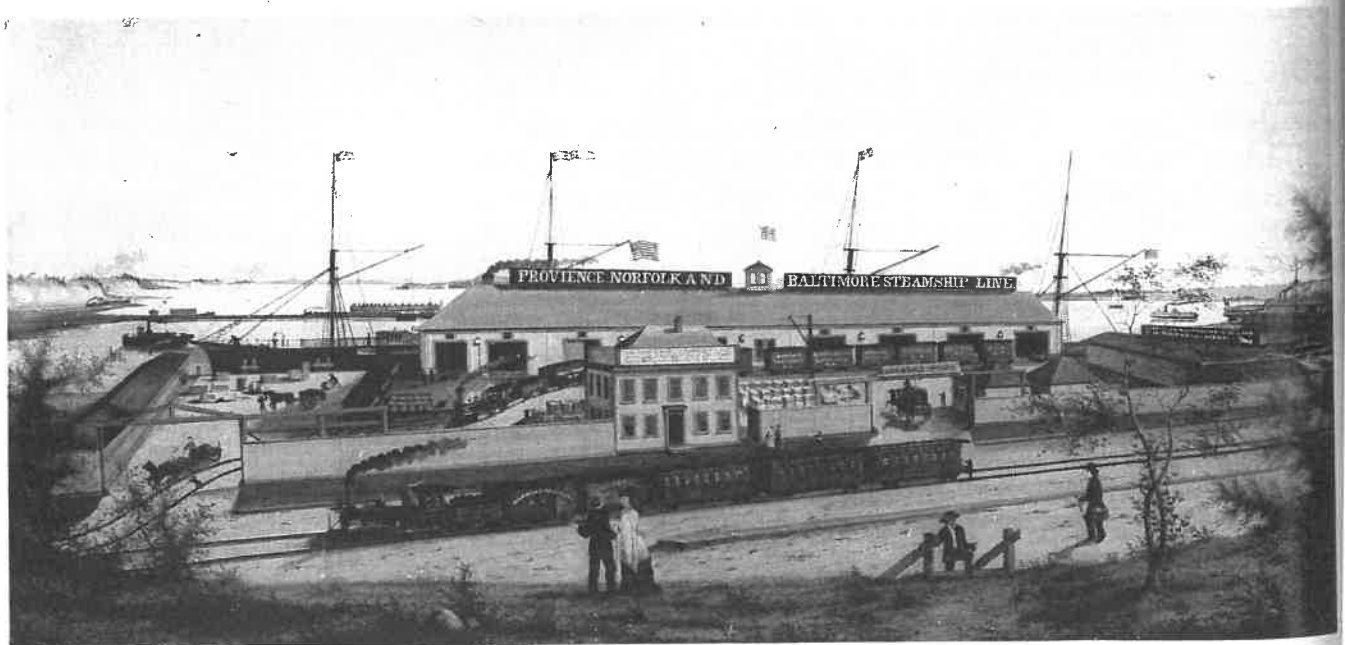
Overseas traders also needed faster ways to travel. Sailing ships sometimes took so long to cross the Pacific Ocean that the goods they carried spoiled. In the 1840s, sleek clipper ships were introduced that cut ocean travel time in half. The clipper ships spurred northern trade with foreign ports around the world.

**Traveling by Rail** The future of transportation, however, lay not on water, but on rails. Inspired by the success of steamboats, inventors developed steam-powered locomotives. Steam-powered trains traveled faster than steamboats, and they could go wherever tracks could be laid—even across mountains.

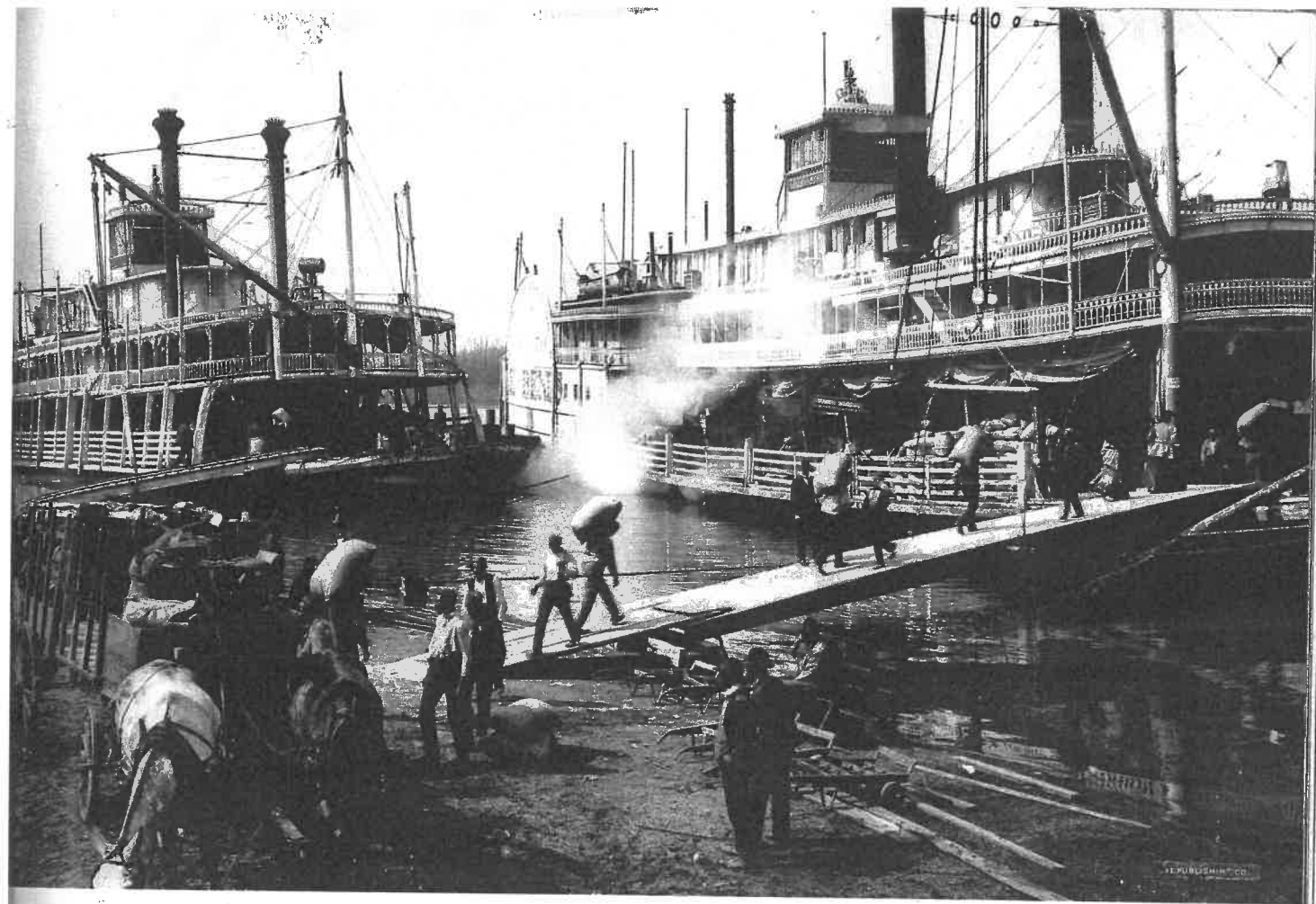
So many railroad companies were laying tracks by the 1840s that railroads had become the North's biggest business. By 1860, more than 20,000 miles of rail linked northern factories to cities hundreds of miles away.

Many new and faster forms of transportation were put to use in the North. How many of them can you identify in the image below?

Museum of Art, Rhode Island School of Design/Mary B. Jackson Fund







### 19.7 Transportation in the South

**M**ost of the rail lines were in the North. In the South, people and goods continued to move on rivers. The slow current and broad channels of southern rivers made water travel easy and relatively cheap.

The most important southern product shipped by water was cotton. On plantation docks, slaves loaded cotton bales directly onto steam-powered riverboats. The riverboats then traveled hundreds of miles downstream to such port cities as Savannah, Georgia, or Mobile, Alabama. West of the Appalachians, most cotton moved down the Mississippi River, the mightiest of all the southern waterways. The cotton boom made New Orleans, the port at the mouth of the Mississippi, one of the South's few big cities. Once the cotton reached the sea, it was loaded onto sailing ships headed for ports in England or the North.

Because river travel was the South's main form of transportation, most southern towns and cities sprang up along waterways. With little need for roads or canals to connect these settlements, southerners opposed bills in Congress that would use federal funds to built internal improvements. Such bills, they believed, would benefit the North far more than the South.

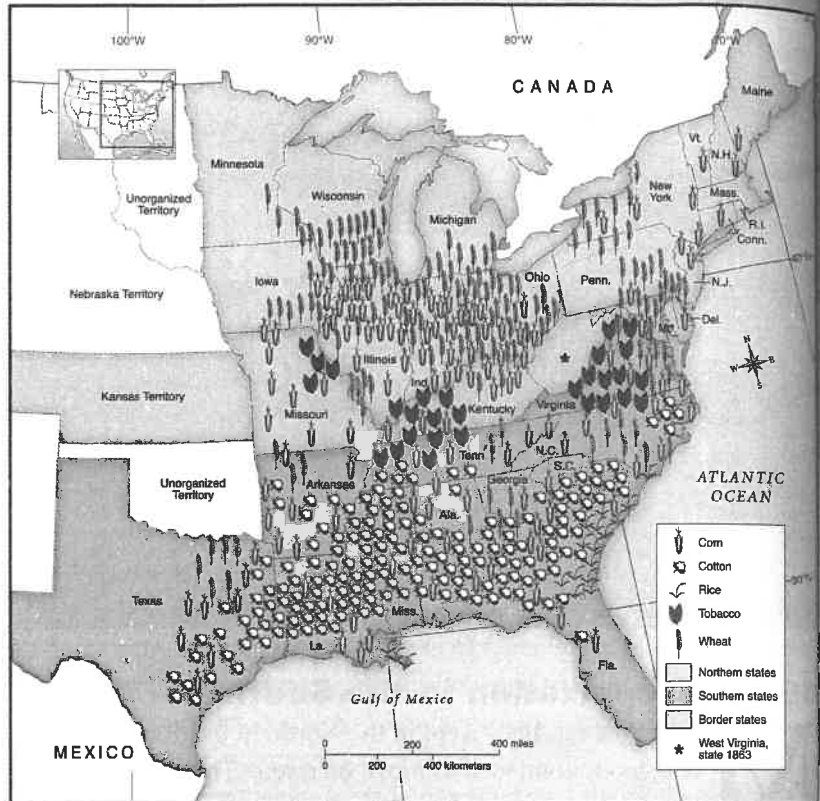
Some railroads were built in the South, including lines that helped southern farmers ship their products to the North. Southerners were proud of the fact that the iron rails for many of their section's railroads came from Virginia's Tredegar Iron Works. Still, in 1860 the South had just 10,000 miles of rail, compared with over 20,000 miles in the North.

This photograph shows products being loaded onto steam-powered riverboats. What geographic feature of the South made riverboats the most practical way to transport goods?

# Geography Challenge

## Comparing the Worlds of North and South

### Agriculture, 1860



### Railroads, 1860



## Industry and Raw Material, 1860



## Free and Slave Population, 1860

