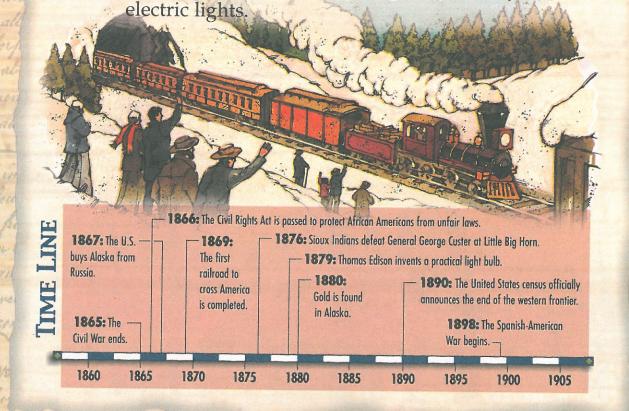
THE UNITED STATES GROWS

If you wanted to choose one word to describe the last half of the 1800s, you might choose the word "change." Between the time the Civil War ended and the next century began, the West had been settled. Indians had been forced onto reservations. The days of the cowboy had come and gone. Millions had crowded into growing cities. And, candles and gas lights gave way to



A RAILROAD ACROSS AMERICA

The first railroads in the United States started to run in the early 1800s. By the 1860s, railroads crisscrossed much of the eastern half of the nation.

Government officials had thought about a transcontinental railroad for a long time. ("Trans" means "across." So, "transcontinental" means "across the continent.") For years, northern and southern representatives fought about the details. One reason was because each group wanted the railroad to start in its region.

It was not until after the South left the Union that northern representatives could pass a bill to build the transcontinental railroad.

How Long It Took to Ship Products From Cincinnati, Ohio, to New York City, New York

DATE	HOW SHIPPED	AVERAGE TIME
1817	Ohio River keelboat to Pittsburgh, wagon to Philadelphia, wagon to New York City	52 days
1843	Ohio River steamboat to Pittsburgh, canal to Philadelphia, railroad to New York City	18–20 days
1852	Railroad lines all the way from Cincinnati to New York City	6–8 days

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Work Starts

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President Abraham Lincoln signed the bill into law on July 1, 1862. The law was called the Pacific Railroad Act. It gave the responsibility of building the railroad to two companies. One company was the Central Pacific Railroad. It was to lay track from Sacramento, California, toward Omaha, Nebraska. The other company was the Union Pacific Railroad. It was to start near Omaha and lay track toward Sacramento.

For each mile of track, the companies would receive money from the government. If the mile of land was flat, the company received \$16,000. If the track covered a mile of mountains, the company could receive up to \$48,000.

The government also gave each company land. All along the route, the land on either side of the tracks was divided up like a checkerboard. The company received every other square of land along every mile of track it completed. The companies then could sell these millions of acres to farmers. The farmers would, in turn, pay the nearby railroad to take their products to market.

Thousands of Chinese workers helped build the Central Pacific part of the railroad.

Problems Building the Tracks

Both companies faced problems as they began building the transcontinental railroad. For example, during the Civil War, there weren't enough men to do the building. So, both companies looked for workers outside the country. Soon, thousands of Irish men were working on the Union Pacific's stretch of track. Thousands of Chinese workers were building the Central Pacific's part of the railroad.

Geography also caused problems for the railroad-building companies. In the West,

for example, the Central Pacific
workers soon faced the Sierra
Nevada mountains. There was no
easy pass through the mountain
range. The builders had to blast
tunnels through some mountains
and raise bridges over others. In

blew snow into drifts 30 or 40 feet deep. No snowplow could clear tracks buried under

mountains of snowdrifts.

the mountains terrible blizzards

So, to keep the trains moving, Central Pacific workers had to enclose dozens of miles of track

with dozens of miles of wooden snow sheds.

These snow sheds helped to keep the great snows off the rails.

Meanwhile, the Union Pacific was building its way across the nation's vast, treeless plains. The tons of wood it needed for ties—and most of its other supplies, too—had to be hauled all the way to Omaha. From there, goods were loaded onto train cars that followed the finished track—perhaps hundreds of miles—to where the men were working.

How the Train Tracks Were Laid

Here is how one writer of the time described what he saw as he watched Union Pacific workers lay track: loren a

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A light [railroad] car, drawn by a single horse, gallops up to the front with its load of rails. Two men seize the end of a rail and start forward, the rest of the gang taking hold by twos until it is clear of the car. They come forward at a run. At the word of command, the rail is dropped in its place, right side up, with care. . . . Less than 30 seconds to a rail for each gang, and four rails go down to the minute. Quick work, you say, but the fellows on the Union Pacific are tremendously in earnest.

The moment the car is emptied, it is tipped over on its side of the track to let the next loaded car pass it, and then it is tipped back again; and it is a sight to see it go flying back for another load, propelled by a horse at

full gallop at the end of sixty or eighty feet of rope. . . .

Close behind the first gang come the gaugers, spikers, and bolters, and a lively time they make of it. It is a grand Anvil Chorus that these sturdy sledges are playing across the Plains; it is in triple time, three strokes to a spike. There are ten spikes to a rail, four hundred rails to a mile, eighteen hundred miles to San Francisco—twenty-one million times are they to come down with their sharp punctuation before the great work of modern America is complete.

A Golden Spike Finishes the Railroad

After years of work, the two rail



lines met each other in Utah, at a place called Promontory Point.
There, on May 10, 1869, officials gathered to watch the last tie be laid and the last spike be driven to connect the western rail line with its eastern half. The last tie was made of laurel wood. The last spike was made of gold.

Actually, two of the officials were supposed to take turns using a sledgehammer to pound in the last, golden spike. However, each of them missed his mark, and the man who finished the rails was one who had helped build them. As he finished, telegraphs all over the country tapped out the message: "Done." Then, the engines from the Central Pacific and the Union Pacific inched forward over the newly completed track until their noses touched. The nation's first transcontinental railroad was completed!

Beginnings and Ends

A nationwide celebration followed the completion of the transcontinental railroad. Guns were fired. Cannons boomed. Church bells rang. And, fireworks lit up the night in cities all over the country. In fact, the railroad united the country as nothing had before. The New York Times announced that now, "The inhabitants of the Atlantic seaboard and the dwellers on the Pacific slope are henceforth emphatically one people. . . ." The railroad also encouraged an explosion of settlement across the Great Plains.

The transcontinental railroad meant the end of some things, too. The Pony Express and wagon trains died away quickly. People began traveling by the fast-moving trains, instead of slower steamboats or stagecoaches. Perhaps the saddest end was the end of the wandering way of life of the Plains Indians, who watched and fought as their prairies were cut up by the rails and parceled out to white farmers.

Left: This photo shows the completion of the nation's first transcontinental railroad, which took place at Promontory Point, Utah. Right: A golden spike like this one was the last spike used to finish the transcontinental railroad.