

CHAPTER 8: The First Transcontinental Railroad; Moving Out West

U.S. HISTORY

We begin this chapter with a quick look back at Thomas Jefferson, the third President of the United States. The USA had sixteen states as of 1801, the year Jefferson took over for John Adams. Of those sixteen, only the two newest—Kentucky, added in 1792, and Tennessee, added in 1796—reached as far west as the Mississippi River. Yet even then, Jefferson already envisioned the USA spreading from coast to coast. His vision grew clearer in 1803, when he tried to buy the port of New Orleans from France—and wound up buying the whole Louisiana Purchase instead.

By now, the west coast was becoming a hot property. The British were pushing down from Canada, while the Spanish were pushing up from Mexico. To make sure the USA got its share, Jefferson sent the Lewis & Clark Expedition in search of a water route to the Pacific. Although Lewis & Clark failed to find a water route, they succeeded at staking the USA's claim on the west coast.

~ The Wedding of the Rails ~

Fast forward to 1840, the last full year for President Martin van Buren. Since Jefferson's day, the pace of westward expansion had gone from steady to shocking. Only thirty-five years after Lewis & Clark, the USA already had three states west of the Mississippi River: Louisiana, Arkansas and Missouri. Iowa would achieve statehood in 1846, followed by Wisconsin in 1848.

The Need

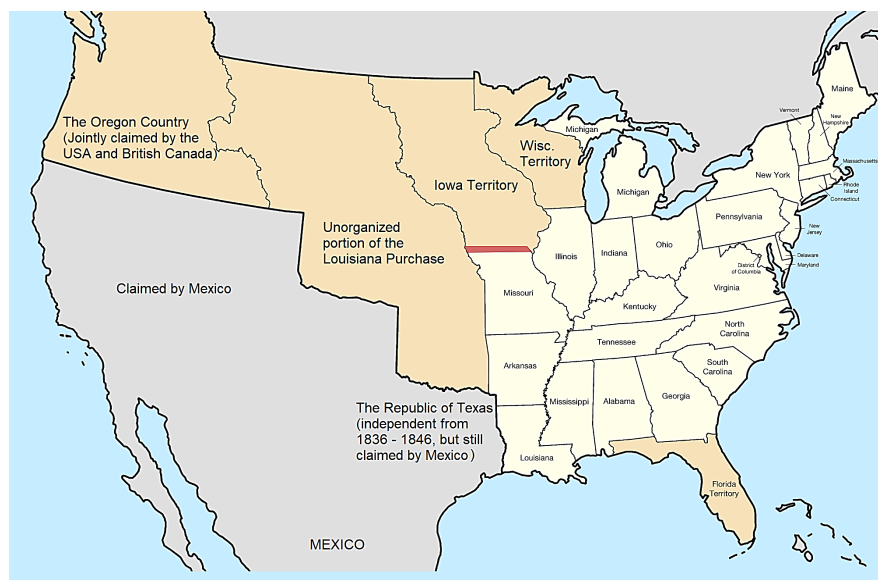
The next step took longer, because the **Great Plains** west of those states were less appealing to settlers. Instead of settling the Great Plains next, they sought the greener lands out on the west coast. Some followed the Oregon Trail to the Oregon Country, part of which was claimed by British Canada. Others followed the California Trail to California, all of which was claimed by Mexico. By the mid-1840s, both Oregon and California had thousands of U.S. citizens; yet neither was officially U.S. territory.

That was soon to change. The part of the Oregon Country south of the 49th parallel north became U.S. territory in 1846, thanks to a treaty with Britain. 1846 was also the first year of the Mexican-American War, which arose from a border dispute between Mexico and Texas. At war's end in 1848, the huge Mexican Cession turned everything from Texas to California into U.S. territory.

Then came 1849, the year of the huge California Gold Rush. Rarely have so many people abandoned good sense all at once. The

The **Great Plains** are a vast flatland that covers much of North America between the Mississippi River and the Rocky Mountains.

The situation in 1840



gold fever was so intense that when ships sailed into San Francisco Bay, it wasn't just the passengers who went prospecting for gold. The crews went too, leaving their ships idle in the bay. In the space of just one year, the number of U.S. citizens in California surged from a few thousand to around 100,000.

Because a territory needed only 60,000 to apply for statehood, California became a U.S. state the very next year.

California statehood was a mixed blessing in 1850. On the one hand, California was a beautiful land with abundant resources and great ports. On the other hand, it was separated from all the other states by nearly 2,000 miles of hostile territory. If California remained separate, then one of two things would probably happen: It would either grow into a separate country, or else be swallowed by some other country. Either way, Jefferson's vision of the USA spreading all across North America would be shattered. What the country needed was something to tie California to all the other states: something like a **transcontinental** railroad.

Transcontinental
means "across the
continent."



The Way West

The paths the Forty-niners followed to California deserve a closer look. Before the transcontinental railroad, travelers took their pick of three arduous routes: by land, by sea, or by both.

- The all-land route followed the California Trail, which was still terribly rough in 1849. Like the Oregon and Mormon Trails, the California Trail followed the Platte River Valley westward across Nebraska. That got them most of the way to **South Pass**, Wyoming, which was by far the easiest pass through the Rockies. Before and after South Pass, travelers had to cross broad stretches of waterless wasteland. The worst was the infamous **Forty Mile Desert**, which stood in western Nevada between the Rockies and the **Sierra Nevada**. The Forty Mile Desert was so thick with the bones of its victims that one could almost cross it by stepping from bone to bone. Even with no mishaps, the all-land option typically took about half a year; and almost everyone suffered mishaps.
- The all-sea route was to sail down the east coasts of North and South America, around the tip of South America at Cape Horn, and then back up the west coasts. The extreme distance, which ran to some 15,000 miles, was just the most obvious problem with this option. A second problem was the storm-blown passage around Cape Horn, which was notoriously risky. A third problem came on the trip up the west coast, when a ship might have to wait weeks for favorable winds. Depending on the time of year, the all-sea option might take even longer than the all-land option—and cost more to boot.
- Although the sea-land route was usually the fastest, it was not necessarily the safest. This option took advantage of the narrowness of Central America, which is less than fifty miles wide at Panama. The idea was to sail down to the Caribbean coast of Panama, haul one's baggage over to the Pacific coast, and then catch a ship up to California. One of the hazards of this option was the trail across Panama, which was mountainous, muddy, and often washed out or blocked by fallen trees. More hazards came at **Panama City**, which was a lawless frontier town set in a rainforest rife with malaria and yellow fever. Instead of finding their fortunes in California, many Forty-niners lost everything in Panama.

The **Sierra Nevada** is a high, forbidding mountain range in eastern California.

Sailors clinging to the yards in choppy seas off Cape Horn, South America





PONY EXPRESS

St. JOSEPH, MISSOURI to CALIFORNIA
in 10 days or less.

WANTED

YOUNG, SKINNY, WIRY FELLOWS
not over eighteen. Must be expert
riders, willing to risk death daily.

Orphans preferred.
Wages \$25 per week.

APPLY, **PONY EXPRESS STABLES**
St. JOSEPH, MISSOURI

A possibly-romanticized
ad for Pony Express riders

The good news was that a transcontinental railroad would solve all those problems and more, making the trip to California easier than a Forty-niner could imagine. The bad news was that a transcontinental railroad was still twenty years away in 1849. Until then, the ties between California and the rest of the country would remain dangerously fragile.

By 1860, the problem was getting out of hand. The Census of 1860 reported almost 400,000 Californians that year, many of them married men who had left their wives back east. These wives pestered their congressmen constantly about the U.S. postal service, begging them to extend it to California. 1860 was also the year when the Republicans nominated Abraham Lincoln for president, and when the cotton states threatened to secede should he win. If a civil war broke out, then Californians might not hear about it for months. It was these two urgent needs, news and letters, that prompted three western businessmen to build the **Pony Express**.

SHORT-LIVED SERVICES: The Pony Express (Apr. 1860 – Oct. 1861)

What the Pony Express proposed to do in 1860, the Forty-niners would have said was impossible. Back in their day, it had rarely taken less than five months to go from western Missouri to California. Now the Pony Express proposed to make the same trip in just ten days!

The plan started with the **Hannibal** and **St. Joseph** Railroad, which finished its route across Missouri in April 1860. That set the starting point for the Pony Express, because mail and news could now ride the rails as far west as St. Joseph. The end point was to be Sacramento, California, nearly 2,000 miles west of St. Joseph. From there, it was just a short trip down the Sacramento River to San Francisco.

Between St. Joseph and Sacramento, the Pony Express built about 190 relay stations roughly ten miles apart each. A rider would gallop ten miles from one station to the next, trade his worn-out horse for a fresh one, and then gallop on. Every eighty miles or so, the worn-out rider changed too. By galloping day and night, averaging eight miles per hour over the rough terrain, a mail pouch could make the trip in the promised ten days. On rare occasions, it took even less. For example, news of Lincoln's first inaugural address reached California on March 12, 1861—just eight days after he delivered it.

Hannibal stands on the Mississippi River in far eastern Missouri, and **St. Joseph** on the Missouri River in far western Missouri.

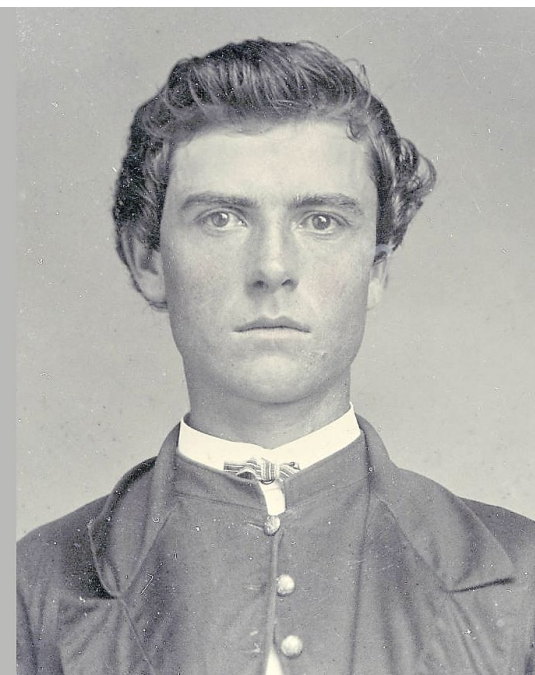
The first problem with the Pony Express was the price. The system required the fastest horses, which cost far more than average saddle horses. It also required the most reliable riders, paying premium wages to keep them happy in their rough job. On top of those were the high costs of keeping 190 relay stations in food and fodder, not to mention defending them against angry Native Americans.

To cover all those costs, the Pony Express had to charge five whole dollars to deliver a half-ounce letter—in a time when the post office charged two cents! Although the price later fell to one dollar, that was still too much; for in those days, even skilled laborers were lucky to earn two dollars per day.

INTERESTING INTERPOSITIONS: The best-known Pony Express rider was **William Cody**, who would later be nicknamed **Buffalo Bill** (Ch. 14).

A second problem for the Pony Express was competition from a newish technology called the telegraph. Sending news and letters by horse made no sense after 1861, the year two telegraph companies finished the **first transcontinental telegraph**.

The future **Buffalo Bill** at age 19, three
years after the Pony Express closed





Samuel Morse (1791 – 1872)

A LOOK BEHIND at the Development of the Telegraph

Oddly enough, the story of the telegraph in America starts with a painter. Long before **Samuel Morse** took up telegraphy, he was an accomplished painter of portraits. He did several that are still familiar to many Americans, including ones of the Marquis de Lafayette, President James Monroe, and inventor Eli Whitney.

Morse's interest in telegraphy started with a sad incident in 1825. He was down in Washington D.C. that year, working on his portrait of Lafayette, when his father sent news from up home in Connecticut. His letter said that Morse's wife had been sick, but there was no need to come see her just now; for she was on the mend.

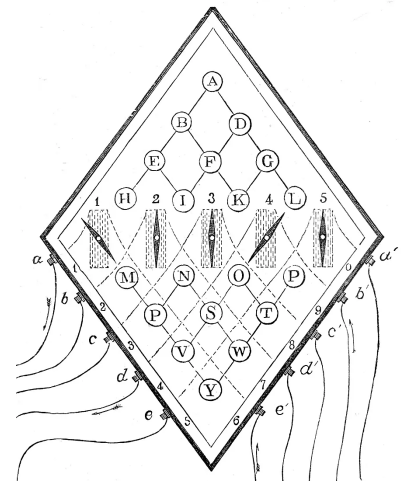
The very next day, Morse received a second letter with far different news. Now he learned that his wife had taken a turn for the worse, and that he must hurry home right away. By the time he got to Connecticut, he had already missed his wife's funeral.

How tragic for Morse, and for so many others who suffered similar tragedies. He might have felt the loss less keenly if he could have spoken to his wife before she died instead of hearing about it too late. From that day forward, he was always looking for ways to send messages faster.

Samuel Morse wasn't the first inventor to patent a working telegraph. That honor went to a pair of Britons called **Cooke and Wheatstone**, who patented the **needle telegraph** in 1837. It worked by using electromagnets to move a set of five needles so that they pointed out specific letters on a dial. The needle telegraph needed no code to operate, as the receiver could read the letters directly off the dial.

The drawback was that five needles required five wires, which made needle telegraphs costly to build and maintain. The **Morse Telegraph**, which he patented just one year later in 1838, had the advantage of using only one wire. The disadvantage was that his single wire could transmit only on-or-off signals, not specific letters.

The solution was a code that turned on-or-off signals into letters. Developed specifically for the Morse Telegraph, **Morse Code** used just two signals—a short one called a dot or *dit*, and a long one called a dash or *dah*—to express all twenty-six letters and ten digits.



A needle telegraph pointing at "V," the only letter at which the two activated needles intersect

Morse also developed a way to extend his telegraph's range. The resistance of the wire degraded the signal over the miles, making it harder and harder to read. The answer was Morse's new **repeater relay**, which re-amplified the signal before it degraded too far. With a repeater relay every couple of miles along the line, one could telegraph across any distance.

The next step was to prove it, which required funding. Morse's big chance came in 1843, when Congress set aside \$30,000 for an experimental line to run thirty-eight miles from Washington DC to Baltimore. The experiment succeeded in May 1844, when Washington bigwigs like Henry Clay watched Morse transmit his famous first message: "**What hath God wrought?**"

After that, the telegraph took off fast. By 1850, companies had already strung wires all over the eastern United States.

"What hath God wrought" comes from the King James version of Numbers 23:23. A more modern translation might read, "Look at what God has done!" The words were chosen by the teenaged daughter of a friend who brought Morse the news about the \$30,000 from Congress.

Morse's portrait of President James Monroe



A LOOK AHEAD: One American who will learn a lot about the inside of a telegraph office will be Abraham Lincoln. He will sit in the one at Springfield, Illinois all through election night 1860, waiting for vote counts to come in from key states like New York and Pennsylvania. He will also spend endless hours in them during the Civil War, sending orders to his generals and waiting for battle news. As we read in Chapters 4 and 5, the news will rarely be good before July 3, 1863—the day the Union will win the Battle of Gettysburg.

Carson City, Nevada stands on the eastern shore of Lake Tahoe near the border with California. **Omaha**, Nebraska stands on the Missouri River just across from Iowa.



Linemen stringing telegraph wires during the Civil War

After California statehood in 1850, western companies stretched telegraph wires too. By 1860, the western system stretched as far east as **Carson City**, while the eastern system stretched as far west as **Omaha**. The next step was connecting the two systems, which was where the **Pacific Telegraph Act** came in.

ENABLING ENACTMENTS: The Pacific Telegraph Act of 1860

The Pacific Telegraph Act was the groundbreaking law that cleared the way for the first transcontinental telegraph. Signed by President James Buchanan in June 1860, the act set a precedent for later, bigger laws that helped build the transcontinental railroad.

The goal of all these laws was to convince private companies to build projects they otherwise wouldn't. They didn't mind building telegraphs and railroads on settled ground, where the risks and rewards were predictable. When it came to crossing unsettled ground, though, they minded very much. If the transcontinental telegraph should fail, and there were many reasons why it might, then they stood to lose the huge sums they had invested in it. They would only invest if someone sweetened the deal for them, making it too tempting to refuse.

The solution was for the government to fund a few incentives. The Pacific Telegraph Act promised the companies that built the telegraph up to \$40,000 of government aid per year, which made the investment less risky. It also granted them right-of-way across all public lands, as well as land for telegraph stations every fifteen miles along the route. In exchange, the companies promised to send government telegraphs ahead of private ones, and to allow U.S. army outposts to connect to its lines.

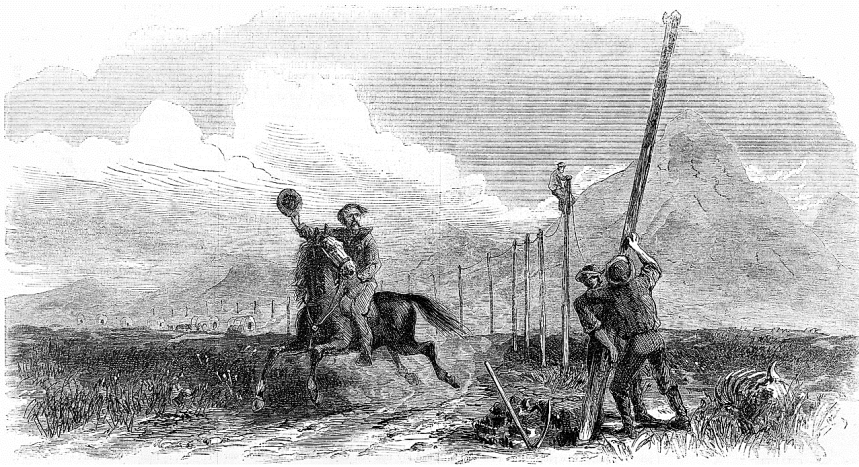
Once the Pacific Telegraph Act was in place, a plan started to emerge. The **Pacific Telegraph Company** would build westward from Nebraska, while the **Overland Telegraph Company** would build eastward from

Nevada. Because the west had no factories to make wire and other supplies, the Overland Co. would have to ship them to California by the sea-land route we covered above. The good news was that the sea-land route was a lot easier by 1860; for since 1855, the **Panama Railroad Company** had been taking care of the land leg across Central America.

The wire-hanging started in May 1861, when the Overland Co. set out from California with 26 wagonloads of supplies hauled by 228 oxen (Gamble, 1861). The

“The Song of the Talking Wire” by Henry Farny. The Overland Co. hired Native Americans as guards during the project in hopes that it would make them less inclined to cut the telegraph wires.





A Pony Express rider waving at transcontinental telegraph linemen as they work him out of a job

hard part now was finding enough poles, because trees were rare along much of the route. With roughly 1,400 miles to cover at around eighteen poles per mile, the two companies would need 25,000-plus poles.

FAST FINISHES: Despite these and other difficulties, the two companies met in the middle on October 24, 1861—less than six months after the wire-hanging started. Because the Civil War was going strong by then, battle news was the first to come over

the finished transcontinental telegraph. Westerners were saddened to learn that one of their own, U.S. Senator **Edward D. Baker** of Oregon, had been killed at the **Battle of Ball's Bluff** three days before.

The Battle of Ball's Bluff was an early Confederate victory near Leesburg, Virginia.

The first transcontinental telegraph was great news for Californians, but terrible news for the Pony Express. The company had had a hard enough time making money before, when its only competition came from slow-moving stagecoaches. Now that telegraph operators could send messages at the speed of light, the Pony Express was sure to lose money. Bowing to the obvious, the company shut down on October 26, 1861—just two days after the telegraph was finished.

The Pacific Railroad Acts

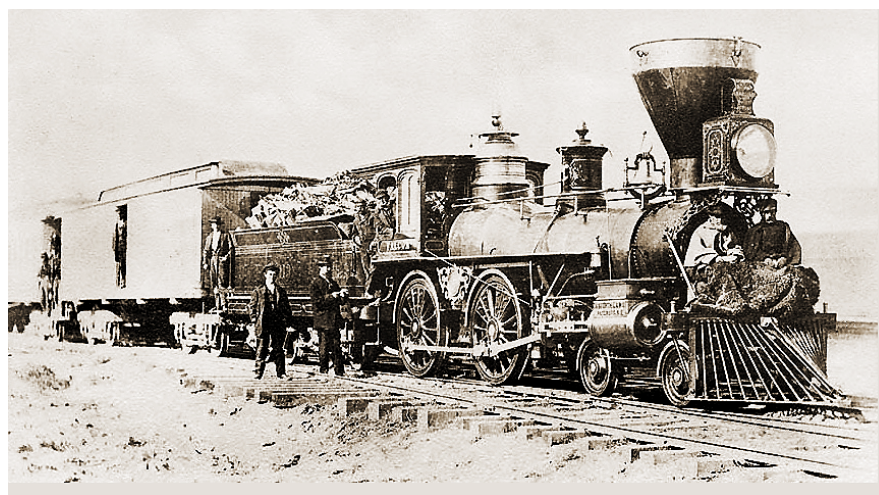
Meanwhile, the start of the Civil War led to new arguments about the transcontinental railroad. Some argued that the ambitious project should go on the back burner for a while, so the Union could focus all its energies on winning. Others said that on the contrary, the war made the need even more urgent. If the Union was in danger of losing California before the Civil War, then how much more so now? A railroad connection would bind California to the rest of the Union, making it an integral part of the whole.

The benefits would continue after the war, supporters argued. Without a transcontinental railroad, the government would spend a fortune sending troops, supplies and mail to and from the fast-growing American West. With such a railroad, those costs would be much less. A railroad would also make it easier to settle the lands between east and west, especially as companies added branch lines to the north and south. The USA would finally be one big nation from coast to coast, as Thomas Jefferson foresaw back in 1801.

DISPENSED-WITH DIFFICULTIES: The start of the Civil War resolved another argument against the railroad. Before the war, Congress could never agree on a route; for Southerners demanded a southern route, while Northerners demanded a northern route. During the war, a southern route was out of the question. On the contrary, Northerners wanted the railroad as far north as possible so the Confederates couldn't hijack it. As for Southerners, they had no more say in the matter; for they had all left Congress to join the Confederacy.

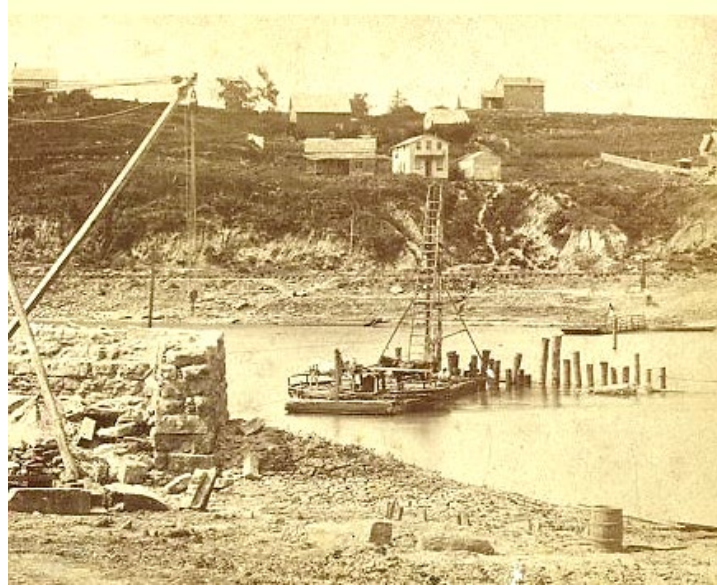
The fact that Abraham Lincoln was president resolved yet more arguments. Long before he ran for president, Lincoln was a successful attorney who won big cases for railroad companies. As a firm believer in the transcontinental railroad, he wanted very much to see it built on his watch.

A Central Pacific Railroad locomotive in 1869



The biggest obstacle that remained was the expense. If investors had doubts about a transcontinental telegraph, then they had many more about a transcontinental railroad; for it would cost many times more:

- Where a telegraph needed tens of thousands of poles, a railroad needed millions of railroad ties—all laid on solid roadbeds and **ballasted**, and topped with expensive iron rails.
- Where a telegraph needed a few poles to cross a river, a railroad needed a bridge strong enough to carry hundreds of tons.
- Where a telegraph could climb over a mountain, a railroad might have to tunnel through it; for heavy trains could climb only so high, so fast. The most they could manage was a 2.2-foot climb in 100 feet of track. If engineers couldn't find a route that climbed that slowly, then a tunnel was the only way.



Driving piles for a railroad bridge in 1867

ENABLING ENACTMENTS: The Pacific Railroad Act of 1862

Greater risks required greater incentives from the government. Knowing how doubtful investors would be, Congress pulled out all the stops for the law that set the transcontinental railroad in motion: the **Pacific Railroad Act of 1862**. The incentives came in two main kinds, loans and gifts:

- The loans were in the form of 30-year government bonds at 6% interest. For every mile of track laid east of the Rockies or west of the Sierra Nevada, the companies could sell \$16,000 worth of bonds. A mile through either mountain range was worth \$48,000, while a mile between the ranges was worth \$32,000. The fact that the bonds were backed by the federal government, rather than by a company that might fail, made them much more attractive to investors. By the time the bonds came due, the companies would have a money-making railroad to help pay them off.
- The gifts were in the form of unsettled public lands. For every mile of track they built, the companies received 3,200 acres of land: half on one side of the track, and half on the other. The government kept the other half, another 3,200 acres per mile. The companies could dispose of their land however they wished, whether by using it themselves or selling it to others. An 1864 version of the law doubled the companies' take to 6,400 acres per mile. In all, the government gave the companies some 275 million square miles of land—more than there is in all Texas!

With gifts that size, the companies couldn't miss. In decades to come, railroad companies would be the richest in the whole USA—and also the most scandalous. They would make the fortunes of several **Robber Barons**, whom we'll get to in Chapter 15.

Railroad **ballast** is crushed stone or other material laid between the ties to hold them in place and help distribute the load.

Union Pacific route in blue, Central Pacific in red



Besides promising loans and gifts, the Pacific Railroad Act also named the two companies that would build the **First Transcontinental Railroad**. The **Central Pacific Railroad** would build eastward, starting from near Sacramento, California. The **Union Pacific Railroad** would build westward, starting from near Omaha, Nebraska. The choice of Omaha was key, because Omaha is where the Platte River runs into the Missouri River. Like the Oregon Trail before it, the Union Pacific would follow the broad, shallow Platte River across the Great Plains.



Grenville Dodge (1831 – 1916)

The Union Pacific's job was by far the easier of the two, especially at first. The Great Plains were so flat that in places, engineers hardly changed ground levels at all. A crew could simply (1) set railroad ties on grade, (2) fasten rails to them with spikes, (3) bolt the rails together with **fishplates**, (4) add dirt as temporary ballast, and (5) move on. Rail cars rolled along behind, bringing up more ties, rails, spikes and fishplates. Kitchen cars kept crews fed; while bunk cars gave crews places to rest, especially in winter.

PRECARIOUS OVERPASSES: The Dale Creek Crossing (1868)

Even so, the UP's route was not without its challenges. One of the biggest came at **Dale Creek**, which runs through southeastern Wyoming about seventy miles west of the Nebraska border. Although Dale Creek was a pitiful excuse for a creek, it had somehow managed to carve out a deep gorge. The Union Pacific's top engineer, **Grenville Dodge**, looked long and hard for a way around it—only to come up empty. The best approach he could find required the UP's biggest bridge yet, a terrifying 150 feet high and more than 700 feet long.

Being in somewhat of a hurry, the UP chose to build the huge **Dale Creek Crossing** almost entirely out of wood. Despite the thousands of bracing timbers that went into it, the bridge still swayed when the first train

crossed it in April 1868. Engineers gritted their teeth as they inched across, worried that high winds might blow them into the gorge. The crossing got a bit less scary in 1876, when the company built an iron bridge to replace the wooden one.

A **fishplate** is a wedge-shaped strap that aligns and binds sections of rail.



Where the Union Pacific faced only the occasional challenge, the Central Pacific faced challenges from start to finish. The first challenge was the Sierra Nevada Mountains, which were so steep that some engineers thought no railroad would ever cross them. It took the Central Pacific's top engineer, **Theodore Judah**, to prove them wrong. After studying the problem for years, Judah plotted a route through the Sierra Nevada that required less **cutting** and **filling** than anyone had thought possible. Even so, the CP still had to either cut or fill for almost every mile of track it laid.

The greatest challenges were all the tunnels. Even with the best route Judah could find, the CP still had to drill thirteen tunnels through the Sierra Nevada. The longest was **Tunnel #6**, a.k.a. the **Summit Tunnel** at Donner Pass. This one ran a third of a mile through solid granite, making it the biggest challenge faced by either company.

INDOMITABLE DIGGERS: Before the days of power tools, blasting through granite was a painfully slow process. Because **dynamite** had only just been invented, CP crews were still using blasting powder or nitroglycerin. One

man held a hand drill, while two others took turns hitting the drill with heavy sledgehammers. When the hole was deep enough, the men stuffed it with explosives, lit the fuse and took cover. After a heart-stopping jolt, they

Cutting and filling means lowering or raising the grade to make an even path.

A Swedish inventor called **Alfred Nobel** patented **dynamite** in 1867.

Dale Creek Crossing in 1868



hauled out the few cartloads of rock they had managed to blast off. Then it was back to the drill and sledgehammers for another hole.

Even working around the clock, CP crews averaged less than a foot of progress per day. To speed things along, they blasted from both ends of the tunnel at once. In the case of the Summit Tunnel, they went so far as to drill down in the middle and blast outward in both directions. Even working four faces of the tunnel at once, they still needed more than a year to finish it.

Besides the mountains themselves, the Central Pacific also faced a problem that was all too common in the mountains: snow. One never knew when a winter storm might dump a few feet of snow on the tracks, idling crews for weeks at a time. To keep going through winter, the Central Pacific decided to build **snow galleries** over the worst parts of its route. Before it was over, the company would put an incredible thirty-seven miles of track under roof.



A view through Summit Tunnel from the west

DISPLACED LABORERS: The Immigrants Who Built the First Transcontinental Railroad

A job the size of the transcontinental railroad required an astonishing number of laborers, far more than the companies could have hired under ordinary circumstances. Fortunately for the companies, circumstances in the 1860s were anything but ordinary. Most of the hard labor was done by three kinds of immigrants who fled their homelands for three different reasons:

- Early on, the Union Pacific relied on Irishmen to lay track across the Great Plains. Many Irish moved to America to escape the Great Famine that started in the late 1840s, and to liberate themselves from greedy absentee landlords (Ch. 19).
- Farther west, the UP turned to Mormons from Utah. The Mormons moved to Utah after their founder and first leader, Joseph Smith, was killed in an ugly riot at Carthage, Illinois in 1844 (Year Three).
- Throughout the project, the Central Pacific relied on Chinese laborers from California. Many Chinese moved there to escape the Taiping Rebellion, which wrought havoc in China from 1850 – 1864 (Ch. 13).

Late in the game, these immigrant laborers got so good at laying track that they turned it into a friendly competition. By mid-1868, both companies were averaging anywhere from one to four miles of track per day—not counting grading and bridge-building, which were separate tasks. Late in the year, the UP pushed itself to a new record of four-and-a-half miles of track. The CP answered with a six-mile day, only to be outdone again. By working from 3 AM until midnight, the UP managed an incredible eight-mile day.

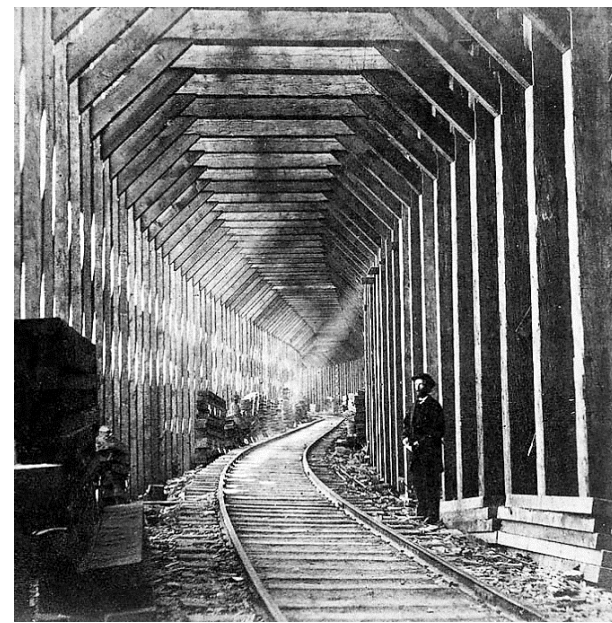
FASCINATING FEATS: The Ten-Mile Day (April 28, 1869)

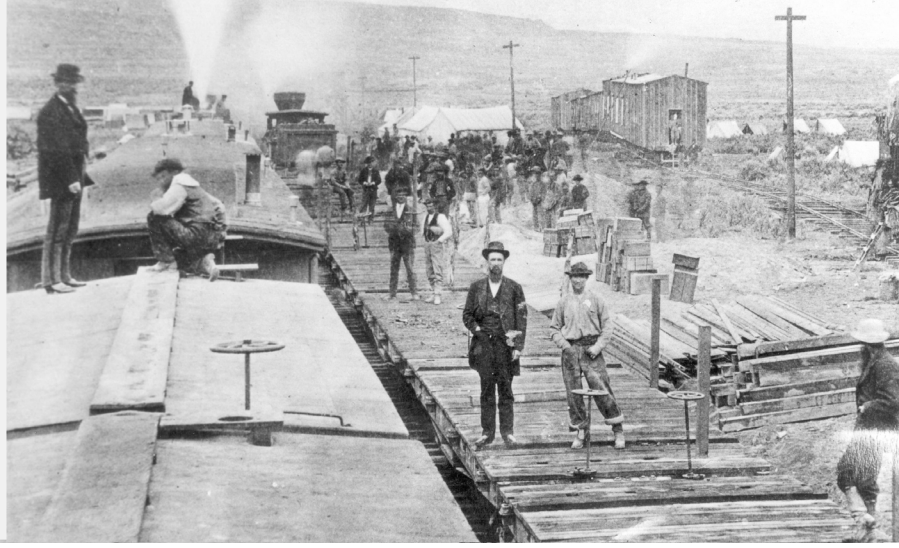
The CP waited until near the end to answer the UP's latest feat. As of April 27, 1869, the CP was fourteen miles from the planned meeting point at **Promontory Summit**, Utah. The UP was nine miles from the summit, which made an opportunity for its rival. If the CP could lay ten miles of track in one day, then the UP wouldn't have enough miles left to outdo it.

Never before had the immigrants worked together so seamlessly. The Chinese handled the supplies, loading handcars with rails, spikes and fishplates and rushing

Promontory Summit stands just north of Great Salt Lake.

One of the Central Pacific's snow galleries





Flatcars rolling on newly laid track midway through the Ten-Mile Day

them to the head of the line. The Irish handled the rails, seizing them with tongs and dropping them in place. It took just four Irish to manhandle a 30-foot rail, even though it weighed 560 pounds. A gauging crew hustled in between, keeping the rails precisely 4'-8 1/2" apart. A spiking crew pounded in five spikes per rail before moving on to the next, while a bolting crew tended to the fishplates. A tamping crew came along behind, shoveling dirt between the ties as ballast. Other crews handled dozens of other jobs, everything from carrying water to bending rails for curves.

The outcome was a monument to manual labor. By day's end on April 28, the UP had laid a few feet over ten miles of track—more than any other crew before or since. Those eight Irish rail handlers had lugged nearly 1,000 tons of iron between them, all while walking ten miles forward and more miles back. The feat was so stunning as to make legends of the men who accomplished it. Looking back on the **Ten-Mile Day**, later generations can't help but wonder if they would be capable of such a thing.

Barely a week later, the two lines finally came together at Promontory Summit. It had been six years' work for the Central Pacific, which started within a year of the first Pacific Railroad Act (above). It had been four years for the Union Pacific, which was delayed by the Civil War until 1865. Thanks to the ease of the Great Plains, though, the UP laid more track: 1,086 miles in all, versus 690 miles for the CP.

To commemorate their stupendous achievement, the two companies planned a grand celebration at the summit. Part of it was to be a ceremonial pounding of the **Last Spike**, which was forged of gold and etched with the planned date of the celebration: May 8, 1869.

What kept them from making the date was not a problem with the rails, but a financial problem. The vice president of the UP, **Thomas "Doc" Durant**, was on his way to the meeting when his train suddenly lurched to a stop. The reason was that some of his own UP men, mainly graders and tie cutters, had piled ties across the track. When Durant asked why, they complained that he hadn't paid them in months. They meant to hold him hostage until he came up with their back wages, which ran to more than \$200,000!

Even a man as rich as Durant needed time to come up with that much money. As a result, the **Wedding of the Rails** didn't happen until May 10—two days after the date etched into the Last Spike.

This little episode with Durant was a forerunner of worse episodes to come. The fortune that went into building the UP was sorely tempting to fraudsters, and Durant was one of several who yielded to temptation. In a few years, news of financial fraud on the UP would land President Grant in deep trouble—as we'll read in Chapter 9.



Celebrating the Wedding of the Rails on May 10, 1869. The left engine is Central Pacific #60, a.k.a. *Jupiter*. The right engine is Union Pacific #119.



~ “Go West, Young Man!” ~

The Homestead Act

The scandals were all in the future, though. For now, the transcontinental railroad was already proving its usefulness. It wasn't even finished yet in mid-April 1869, when the U.S. Army used it to send a unit of troops from Omaha to Sacramento. After riding the Union Pacific as far as it could, the unit marched across the stretch that wasn't finished yet, and then took the Central Pacific the rest of the way. Even spending two days on foot, the unit made the whole trip in seven days—three days faster than the Pony Express! The finished track would cut the average trip west to around five days, half the time the Pony Express took.

The railroad also proved useful in its other mission, helping to fill the lands between east and west. Another thing that helped fill those lands was a groundbreaking law called the **Homestead Act**.



Homesteaders in 1880s Nebraska

LAND-DISTRIBUTING LAWS: The Homestead Act of 1862

Like the Pacific Railroad Act, the Homestead Act had the full support of the man who signed it into law in May 1862: President Abraham Lincoln. As a free-soil Republican, Lincoln envisioned the American West as a free land of opportunity—not an extension of the slaveholding South. That was why he opposed the expansion of slavery before the Civil War, because he didn't want slaveholders gobbling up the West. He wanted it for average settlers instead, which was what the Homestead Act was all about. Under the terms of the act, which took force on January 1, 1863:

- Anyone who met the requirements was entitled to one-quarter **section** of previously unclaimed land—in other words, 160 acres. A settler had only to file a claim with a government land office, which required a \$10 fee, and he could move in and start farming.
- The main requirements had to do with citizenship and age. All American citizens who were at least twenty-one years old automatically qualified. Non-citizens of that age qualified too, provided they had declared their intent to become citizens. If one had served in the armed forces of the United States, then even the age requirement was removed. Because the Civil War was in full swing when the act passed, Congress threw in one more requirement: One must never have “borne arms against the Government of the United States or given aid and comfort to its enemies.”

Ever since the Northwest Ordinance of 1787, the lands out west had been surveyed into regular **sections** of one square mile = 640 acres each.

A sod house built into a Nebraska hillock



Other requirements ensured that the land went to settlers who would actually live there, not to businesses, investors or real estate speculators. To gain full possession of a claim, a settler had to either live on it or cultivate it for five straight years. Only after the five years were up would the government issue title to the land, which would allow the settler to sell it if he or she wished. Even then, the land could not be seized to pay off any previous debt. The land was to be for the settler's benefit alone, no one else's.

One group of people who benefitted from the Homestead Act were Union soldiers. An active-duty soldier called **Daniel Freeman**



An American bison, a.k.a. a buffalo, in Oklahoma

was the first to file a claim under the act, doing so just after midnight on January 1, 1863. Many Union veterans followed in his footsteps after the war, seeing the West as a place to make a fresh start. Confederates who hoped to do the same couldn't, because the law disqualified them.

Others who benefitted from the act were immigrant groups. The two biggest were Germans and Irish, both of whom moved to the American Midwest in droves. But there were also Scandinavians, Czechs, Poles, Hungarians, and more. The promise of free land in a free country was enough to make them pull up roots and move thousands of miles from everything they knew.

One group who didn't benefit from the Homestead Act were Native Americans. Many of the lands

covered by the act were still claimed by Native American tribes, often by several tribes at once. Instead of settling the tribes' claims first, the government plowed ahead with white settlement. The upshot would be decades of war against the Western tribes, as we'll read in Chapter 14.

Another group who didn't benefit, for the most part, were Black Americans. The West would have been a perfect place for freedmen to move after the Civil War, if not for the same problem as always: money. Free land was no good to a Black settler if he couldn't afford to get there, nor a mule team, plow and seed to get started. If the Homestead Act had allotted money for the poorest settlers, then maybe more freedmen could have benefitted from it; but alas, it didn't. Even so, a few lucky freedmen managed to benefit.

BOTHERSOME BOVINES: The Buffalo Problem

Native Americans weren't the only ones who were reluctant to give up the Great Plains. There were also huge herds of **American bison**, a.k.a. **buffalo**. As late as 1860, the Great Plains were still home to at least twenty million buffalo—perhaps three times that many. The massive animals thrived on the abundant grass of the plains, growing to an average weight of around 1,500 pounds.

One of the problems with buffalo was that they were murder on technology. Their strength was such that they could easily break a telegraph pole, especially if it was thin or rotten. Their temperament was such that they could lie on a railroad track for hours, unmoved by the shrill whistle of the engine. Their presence on the plains was a constant nuisance that telegraphers and railroaders longed to be rid of.

Another problem with buffalo was that they supported the Native American lifestyle. As long as the great herds roamed the Great Plains, the Plains Tribes would roam after them; for they relied on buffalo for just about everything. If settlers wanted the tribes to stop roaming, then eradicating the buffalo was a great way to make it happen.

"Indians Hunting the Bison" by Karl Bodmer



ILLUMINATING LISTS:

Native American Uses for Buffalo

- The abundant meat of the buffalo was just part of what Native Americans ate. They also ate the heart, liver, kidneys and intestines; sucked the marrow from the bones; and even drank milk from the stomachs of buffalo calves.

- Buffalo hides yielded **rawhide** for rope, moccasin soles, satchels, drumheads and more. After tanning, the hides yielded leather for clothing, tepee covers, saddles and so on.
- Buffalo bones yielded tools both large and small, everything from garden hoes to sewing pins. Buffalo horns yielded gunpowder horns, drinking cups, ladles and more. Sinew could be used for string, while knuckle bones could be rolled like dice. One could even swish away flies with a buffalo's tail.



A buffalo hide yard at Dodge City, Kansas in 1878

At first, white settlers used buffalo in some of the same ways Native Americans did. That was how Buffalo Bill Cody made his name, selling buffalo meat to railroad companies. There was also a time when buffalo hides were big business. For a few years around 1880, a single hide sold for as much as three dollars—in a time when a hard day's work earned only one or two dollars.

Rawhide is hide that hasn't been tanned.

BRISK BUSINESSES: The great thing about the buffalo hide business was how easy it was to kill the animals. The Plains buffalo of the time were so complacent that gunfire hardly phased them. A careful hunter could kill many buffalo before the herd took fright and ran off. Then the skinning crew moved in, using sharp knives to loosen the hides while teams of horses or mules pulled them off the carcass. With just a few days' work, buffalo skinners could earn enough to keep themselves fed and happy for months.

The shameful thing about the hide business was all the waste. Having no way to preserve that much meat, the skinners simply left it on the prairie to rot. Native Americans looked on in horror, wondering how anyone could justify such squander.

Just a bit later, white settlers turned from harvesting buffalo hides to deliberately exterminating buffalo. Railroad companies offered hunting by rail as a side benefit of buying a ticket. Whenever a railroad engineer saw a herd of buffalo on the move, he slowed to match the herd's pace. Passengers happily picked off buffalo from flatcars, or from the roofs of passenger cars. The animals rotted where they fell, benefiting no one but the settlers who wanted them gone.

Between the skinners and the railroads, it didn't take long. The buffalo were all but gone from the Great Plains by 1889, just twenty years after the Transcontinental Railroad opened. General **Phil Sheridan** spoke truth

when he said, "These [buffalo hunters] have done more to settle the vexed Indian question than the entire regular army has done in the last thirty years."

Phil Sheridan was a Civil War general who went on to fight the Western Indian Wars (Ch. 14).

An 1872 photo titled "Trail of the Hide Hunters"



Cattle Drives and Fence Cutting Wars

In starting a new way of life for one kind of settler, the Homestead Act helped end a way of life for another kind. Since the early 1800s, open range cattlemen had been letting their herds wander wherever they could find grass and water. Now that crop farmers were staking claims on the open range, the cattlemen would eventually have to stop—but not without a fight.



Most cattlemen hailed from Texas; for when that state was young, land was so free and abundant there that one could raise as many animals as one could afford. The problem was getting the animals to a market where they were in high demand, and thus brought a high price. A steer that sold for five dollars in Texas might bring as much as forty dollars in California or Ohio, if a cattleman could only get it there.

That was one reason why Southerners wanted a southern route for the Transcontinental Railroad: because it would solve the problem of moving Texas cattle to market. If Northerners had agreed, then Texas might have gotten its railroad as early as the 1850s. Because North and South disagreed, Texas had to wait through the Civil War and beyond. Until the railroad reached Texas, the only way to move cattle to market was with a **cattle drive**.

So began the romantic age of the American cowboy.

As early as the mid-1840s, teams of cowboys drove herds as far as 2,000 miles—from Texas to Ohio, California, or wherever else the market was strong. These early drives didn't always succeed, though; for they were extremely risky. There were many ways to lose animals, from starvation to dehydration, drowning at river crossings, death by predator, and theft by Native Americans. The trails were simply too long and hazardous early on. The heyday of cattle drives didn't start until 1867, when the **Kansas Pacific Railway (KP)** made it to **Abilene**, Kansas.

Abilene stands about 140 miles west of **Kansas City**, which straddles the border between Kansas and Missouri.

TRIBUTARY TRACKS: The Kansas Pacific Railway was the next line south of the Union Pacific. Before the UP even finished crossing Nebraska, the KP was already laying track across Kansas. Starting from Kansas City, Missouri, the line eventually made it as far west as Denver, Colorado. The KP's builders hoped to push on to California, but wound up settling for a northern connection to the UP.

Texas cattlemen eyed the Kansas Pacific Railway with interest, knowing what it might mean to them. By the 1860s, eastern Kansas was already too full of settlers to drive cattle across. Whenever cattlemen tried, the state government gave them no end of trouble. As the railroad stretched westward, though, it went beyond the settled parts of Kansas. Once it reached Abilene, it was far enough west for cattlemen to get there without angering too many settlers.

OFT-TRAVELED TRACKS: The Chisholm Trail (Opened 1867)

A Cherokee called **Jesse Chisholm** was among the first to take advantage of this new opportunity. Chisholm was a well-traveled trader from the **Indian Territory**, which stood in the future Oklahoma. As soon as the Kansas Pacific made it far enough west, Chisholm blazed a cattle trail across the Indian Territory. Known as the **Chisholm Trail**, it started at **Red River Station**, just south of the **Red River** in northern Texas; and it ended at Abilene, Kansas, roughly 365 miles due north.

The **Indian Territory** opened in 1830, when President Andrew Jackson signed the Indian Removal Act (Year Three).

The winding **Red River** forms much of the border between Texas and Oklahoma.

Once Chisholm finished blazing his trail, a cattleman's route was set. He drove his herd first to Red River Station, then up the Chisholm Trail to the stockyards at Abilene. A few days' feeding and watering at the stockyards helped add back weight the cattle had lost on the drive so they would look better to buyers.



FASCINATING FACTS about Cattle Drives

- A cattle drive crew consisted of a trail boss, around ten cowboys to drive the herd, a couple of **wranglers** to take care of the **remuda**, and a cook. A good “cookie” was especially important, as tasty meals made the difference between contentment and misery.
- The cookie’s headquarters was the **chuckwagon**, a specially designed wagon with an extendable table and compartments for utensils and supplies.
- The right pace was important. Depending on where in Texas a herd started, the distance to Abilene might be 1,000 miles or more. If the cattle took that whole distance at full speed, then they would lose too much weight along the way—and thus would sell for less. The right pace was around 10 – 15 miles per day, depending on the terrain. At that rate, a 1,000-mile cattle drive took around three months.
- The heyday of the American cattle drive ran from around 1867 – 1890. Long drives made no sense after 1890, as the railroad had long since reached Texas by then.



Gathering around the chuckwagon for a meal

A **remuda** is a herd of spare horses. The term comes from the Spanish word for “remount.”

Abilene’s days as a trailhead town were numbered. Settlers were claiming more of Kansas every day, putting more and more land off-limits to cattle drives. As the line of settlement moved west, cattlemen moved west to avoid it. More towns built stockyards like Abilene’s, trying to peel off some of its rich business. Only a few years after it opened, the Chisholm Trail was already merging into a larger network called the **Great Western Cattle Trail**.

The **Santa Fe Railway** laid tracks from Topeka, Kansas to Santa Fe, New Mexico starting in 1868.

Dodge City stands in southwestern Kansas about 150 miles west of Wichita.

There was also a new railroad to consider. By the spring of 1873, there was no need to drive cattle all the way to the Kansas Pacific anymore; for the **Santa Fe Railway** stretched as far southwest as **Dodge City**, Kansas. Besides luring cattlemen with its railroad and stockyards, Dodge City also lured them with the **Long Branch Saloon**.

TREACHEROUS TAVERNS: The Long Branch Saloon at Dodge City, Kansas

Not everyone was cut out for all day, every day jobs like driving cattle or laying railroad track. Some preferred jobs with less routine and more fun, like professional gambling. A clever gambler could make a fortune fleecing cowboys and railroaders out of their hard-earned dollars, especially if they were drunk. The role of alcohol explains why professional gamblers favored drinking establishments like the Long Branch Saloon.

When TV and movie directors depict Western saloons, they are often aiming for the Long Branch. It was the quintessential watering hole of the Wild West, as lawless and dangerous as any on the frontier. The list of gunfighters who passed through the Long Branch reads like a Who’s Who of the Wild West, from **Wyatt Earp** to **Bat Masterson**, **Doc Holliday**, and many more.

Front Street in Dodge City, featuring the Long Branch Saloon





Inside the Long Branch Saloon

Where directors often go overboard is in the nature of saloon fights. When a gunfight broke out at the Long Branch, it was rarely a quick-draw showdown like the ones in television and film. Far more common were ugly scenes like the **Dodge City Shootout** of April 5, 1879.

The Dodge City Shootout pitted nineteen-year-old “**Cockeyed Frank**” Loving, so nicknamed because of his **strabismus**, against twenty-eight-year-old **Levi Richardson**. Frank was a former cowboy who had recently turned professional gambler, and Levi a former buffalo

Strabismus means that one’s eyes don’t appear to line up.

hunter who hoped to do the same. Although both were well-used to guns, probably neither had used one on another human being before their infamous showdown.

The two of them got along fine until March 1879, when Levi made some suggestive comments about Frank’s wife. This led to some behind-the-back insults from Frank, which threatened Levi’s reputation as an honest gambler. Knowing he would never make it as a gambler without a good reputation, Levi answered Frank with an ultimatum—telling him to either apologize or fight.

DISGRACEFUL DUELS: The action started around 8 PM on April 5th, when Levi stormed into the Long Branch looking for Frank. Finding that his enemy hadn’t arrived yet, Levi stood by the bar to wait for him. The amount of drinking he did over the next hour probably had a lot to do with what followed.

Levi was almost ready to give up around 9 PM, when the unsuspecting Frank strolled into the saloon and sat at one of the gambling tables. Levi followed close behind, cursing him all the way. Because their conversation was private, no one knows for sure what they said to each other. What is sure is that a few minutes later, both drew their revolvers and started blazing away right there in the Long Branch! This was no quick-draw, stand-your-ground-for-honor duel like the ones in the movies. On the contrary, both men dodged behind the gambling tables as they gunned for each other.

Maybe it was the drinking that threw off Levi’s aim, or maybe it was only the excitement of the moment. Whichever it was, only one of the five rounds he fired even touched Frank; and that one only grazed a hand. Frank did better, putting two of his six rounds in Levi’s torso and another in his arm. The beaten Levi staggered to his feet one last time before falling near one of the tables, where he soon died.

FATEFUL FINISHES: Besides escaping Levi Richardson’s bullets, Frank Loving also escaped legal consequences. Because Levi had gone into the Long Branch looking for a fight, the coroner ruled that Frank killed him in self-defense—and thus didn’t press charges.

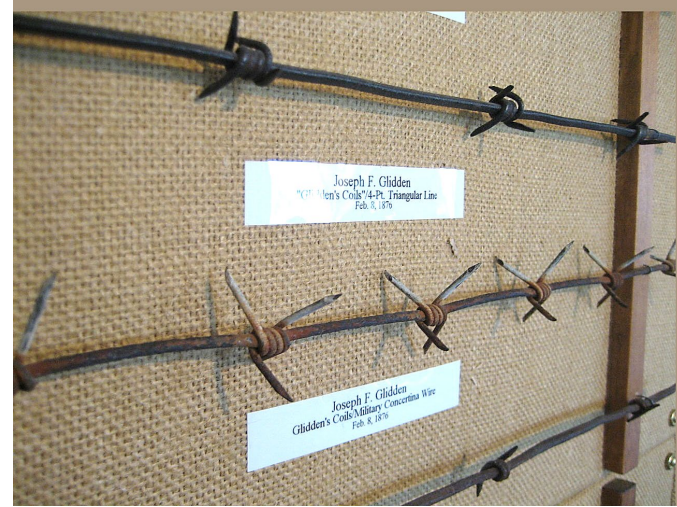
After an escape that narrow, some people would have been more careful in the future; but not Frank. He was living in Colorado three years later, when another silly spat led to another shootout. This time it was Frank who was gunned down, and his opponent who got off on a plea of self-defense.

Two revolvers that were popular in 1879, the year of the Dodge City Shootout: Remington Model 1875 at left, Colt Model 1873 at right



Like everything else about the Wild West, the heyday of the Long Branch Saloon was short-lived. It lasted just about five years, from around 1879 – 1884. By the end of that time, Dodge City was filling up with respectable citizens who demanded law and order instead of lawless gunfighting. When the saloon burned down in 1885, no one bothered to replace it.

Meanwhile, the trouble between settlers and cattlemen went from bad to worse. It was especially bad in Texas, where open range cattlemen continued to let their herds wander wherever they took a notion. Animals wandered onto settlers' claims by the thousands, tore up every blade of grass they could find, and then wandered off to find more. Preferring to save their grass for their own animals, settlers took to fencing off their claims.



Samples of Joseph Glidden's barbed wire

ISOLATING INVENTIONS: Fencing got a lot easier after 1874, when Joseph Glidden patented a cheap new fencing material called **barbed wire**. Smooth wire fences were no good for cattle, as the animals were strong enough to push through them no matter how tight they were. Glidden's barbs were sharp enough to make cattle think twice about pushing through, despite the protection of their thick hides.

Open range cattlemen hated barbed wire, especially when there got to be so much of it that their herds couldn't find food and water. Their situation grew desperate in 1883, when a springtime drought parched the few lands that were left open to them. Rather than let their animals die, the open range cattlemen took to cutting the barbed wire and driving their herds onto settled land.

The frenzied pace of western settlement helped confuse the issue. With deed books changing every day, no one was sure which lands belonged to whom. Settlers shouted that they had every right to fence off their private property. Open range cattlemen shouted that settlers were fencing off not only their own property, but also government property that no one had claimed yet. Bent on preserving what little was left, the open range side took to fencing off government lands. Now the settlers started cutting fences too, which only added to the confusion.

FODDER-DRIVEN FRICTIONS: The Texas Fence Cutting War (1883 – 1884)

As usual in the American West, the dispute came to blows. Settlers hired armed guards to protect their fence-building crews, threatening to kill anyone who interfered. Open range cattlemen did the same for their own crews, leading to harsh words, fist fights and even shootouts.

The open range side was fighting a battle it couldn't win. Settlers were claiming more land every day, putting more and more of it off limits. Railroads were penetrating farther into Texas, removing the need for long cattle drives. It all happened so fast that the settlers won the **Texas Fence Cutting War** in 1884, hardly a year after it started.

The Day of Two Noons (1883)

The impact of railroads on the USA in the second half of the 1800s is hard to overstate. We've covered just a few of the many changes they brought, some helpful and others hurtful. It is fair to say that in changing all those things, railroads changed the very nature of the USA. It was one country before the First Transcontinental Railroad went through, and quite another country after. Its

Chugging along the transcontinental railroad as Native Americans look on from the hills above





businesses were far bigger, its people far more driven and ambitious. Americans came to believe that if they could tame a whole continent, then there was nothing they couldn't do.

Railroads even changed how people thought about space and time. As late as the 1830s, the highest speed most people ever reached was around fifteen miles per hour. By the 1850s, railroads routinely carried people two or three times that fast. First-timers shook their heads in wonder, feeling as if the speed of rail had somehow obliterated space. A few even feared for their health.

They worried that if the human body were pushed too fast—perhaps to the unfathomable speed of sixty miles per hour, or a mile a minute—then the stress might tear it apart!

Besides causing such needless anxiety, the speed of railroads also caused a practical problem with timekeeping. Before the railroads came, most people satisfied themselves with **sun time**. They set their clocks by their town's sundial, or by using a sextant to find high noon—the precise moment when the sun went from rising to setting. Because they had no quick way to get to the next town, they neither knew nor cared that clock time was different there. It didn't bother them in the least that when it was high noon in Chicago, Illinois, it was only 11:27 AM in Omaha, Nebraska.

After the railroads came, the difference in times bothered them very much; for sun time was murder on railroads. Each station had to keep multiple clocks, one for the sun time at each town along its line. Telegraph operators spent endless hours keeping all these clocks accurate. Engineers kept timepieces for each town too, so they could tell their passengers what time it was when they pulled in. Passengers with only one pocket watch set it to local time when they arrived, and thus lost track of the time back home. Frequent travelers resorted to buying multiple pocket watches, or else a single watch with multiple sets of hands. The more people relied on railroads, the more obvious the problem became.

By 1883, most Americans were ready to try the solution the railroad companies were pushing for: **railroad standard time**. They proposed to divide the continental United States into four time zones: Eastern, Central, Mountain and Pacific, each exactly one hour apart. Each city would set its clocks to the standard time for its zone, forgetting all about sun time. From now on, a clock in Chicago would read the same as one in Omaha—even though high noon came thirty-three minutes later in Omaha.

Standard time started at noon on Sunday, November 18, 1883, when every railroad station across the country changed its clocks at the same time. Most towns followed suit, even though standard time wasn't yet required by law. For people in the eastern part of their time zones, that Sunday was a **Day of Two Noons**: one for sun time, and another a few minutes later when they turned their clocks back to standard time. People in the western part of their time zones lost a few minutes as they turned their clocks ahead.

❧ WORLD HISTORY ❧

~ The Paris Commune ~

This last section takes us back to the Franco-Prussian War, which we covered in Chapter 7. As we read there, the war could hardly have gone worse for the French. The Prussians outfought them at every turn, leaving them deeply humiliated. The worst humiliation came at the Battle of Sedan, which ended with nearly 105,000 Frenchmen surrendering to the Prussians. One of them was Emperor Napoleon III himself, who now became a prisoner to Otto von Bismarck.

The four time zones



The Third French Republic

The capture of the French emperor raised the urgent question of who should take his place. Most Frenchmen wanted nothing more to do with Napoleon III, feeling he had dishonored himself with his cowardly surrender. Nor did they want his son **Louis-Napoleon**, who was still just a teenager when his father surrendered; nor his wife **Empress Eugenie**, who was beloved abroad but hated at home.

In fact, most Frenchmen wanted no emperor at all. Instead of carrying on with the Second French Empire, France went back to the republican government it had before Napoleon III. The new government was called the **Third French Republic**; and it started on September 4, 1870, two days after the Battle of Sedan. A committee called the **Government of National Defense** ran the country at first, just until elections could be organized. After elections the following February, an elder statesman called **Adolphe Thiers** took charge as the first president of the new republic.

Neither the Government of National Defense nor President Thiers had an easy time of it. The first suffered through the awful Siege of Paris, which went just as badly as the rest of the war (Ch. 7). After Paris surrendered and the war ended, Thiers suffered through the awful aftermath. Parisians took a dim view of both new governments, judging them to be no better than that of Napoleon III.

The worst problems President Thiers faced were financial ones. The victorious Prussians demanded a fortune in war reparations from France, and it was Thiers' job to raise that fortune. Some of the ways he tried to raise it made poor Frenchmen's jaws drop. For example, he proposed to disband the French **National Guard**—calling it a needless extravagance now that the war was over. Poor guardsmen gasped in horror, wondering how they would get by once Thiers cut off their salaries.

The people of Paris were more horrified than most, because their political opinions were stronger than most. Since the days of the French Revolution, Paris had been the world's foremost hotbed of radical political ideas. **Communists** like Karl Marx and Friedrich Engels, whom we met in our Prologue, had spent a lot of time there. So had two prominent **anarchists** of the day, **Mikhail Bakunin** and **Pierre-Joseph Proudhon**. Many Parisians bought into their ideas, seeing them as their best hope for escaping poverty and tyranny.

RADICAL REACTIONS: The Establishment of the Paris Commune (March 18, 1871)

Parisians knew just what to do with tyrants. They had already overthrown three by their count: Louis XVI in 1792, Charles X in 1830, and Louis-Philippe in 1848 (Ch. 7). Figuring one more wouldn't hurt, they set out to overthrow President Thiers as well. In mid-March 1871, scarcely six weeks after the Franco-Prussian War, the city of Paris declared that it was no longer part of the Third French Republic. Now it was the **Paris**

Commune, a communist government based on the radical ideas of Karl Marx and Friedrich Engels.

Communists believe that all business-related property should belong to the whole community, not to private businessmen and investors.

Anarchists believe in no state governments at all, seeing them as inherently coercive and corrupt.



Adolphe Thiers (1797 – 1877)

The **National Guard** was a reserve force that did most of the fighting during the Siege of Paris.

The National Guard manning a barricade against Thiers' troops

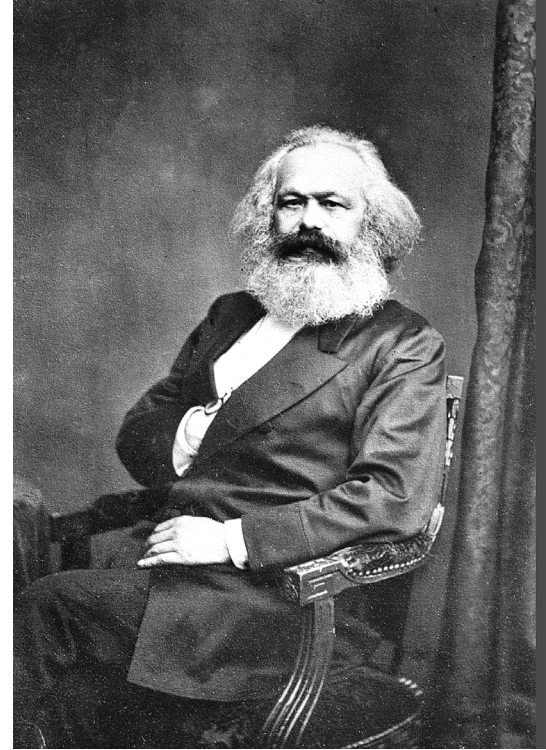


A LOOK AHEAD: The Paris Commune will be just the first of many Marxist governments to emerge in the modern era. Although these governments will follow different paths, they will all have certain principles in common. The bedrock principles of communism include:

- Community property: Marx believed that in the long run, all property should belong to the whole community—rather than being hoarded by rich landowners or **bourgeois** businessmen. As long as property remained in private hands, he believed, the rich would continue to lord it over the poor. The right way to own property was in community with one's neighbors, so that all could share equally in its benefits.
- Banning Inheritance: In the short run, Marx favored laws that stopped owners from handing down money and property to their heirs. He wanted them handed down to the community instead, so as to achieve his ideal communist society faster.
- Abolition of rent, interest and debt: Also in the short run, Marx favored laws that stopped the rich from using their riches to stay rich. One of his favorites was reducing or banning rent, so the rich couldn't overcharge for the use of their property. A second favorite was banning interest on loans, so the rich couldn't overcharge for the use of their money. A third favorite was forgiving loans altogether.
- Community labor: Marx believed that labor was only unpleasant because the oppressive nature of **capitalist** society made it so. Once his ideal communist society was up and running, the rule would be "From each according to his ability, to each according to his need." Those who were able to work would do so selflessly for the benefit of all, so that those who were less able wouldn't have to do without.
- Atheism: Marx wrote that "Religion is the opium of the people," and that "the abolition of religion as the illusory happiness of the people is required for their real happiness." In other words, he saw religion as false promises meant to ease the pain of living in an unjust world. He wanted to correct the injustice, not placate people with what he saw as false promises. The Biblical idea that God is good, alive and active in the world was one that Marx found preposterous.
- Public Education, Raising Children in Community: Marx knew that his ideal communist society would never come without careful, persistent education. The Paris Commune required all religious schools to immediately become secular schools, so as to teach communist ideals rather than religious ones. It also encouraged all parents to send their children to public schools. In the Marxist vision, parents had no more authority over their children than anyone else did; for children belonged to the whole community, not to their individual parents.

With all this in mind, the **communards** had high hopes for the Paris Commune. They saw it as a grand social experiment that would demonstrate the truth of Marx's philosophy, proving that communism was far superior to capitalism.

A **communard** was a member of the Paris Commune.

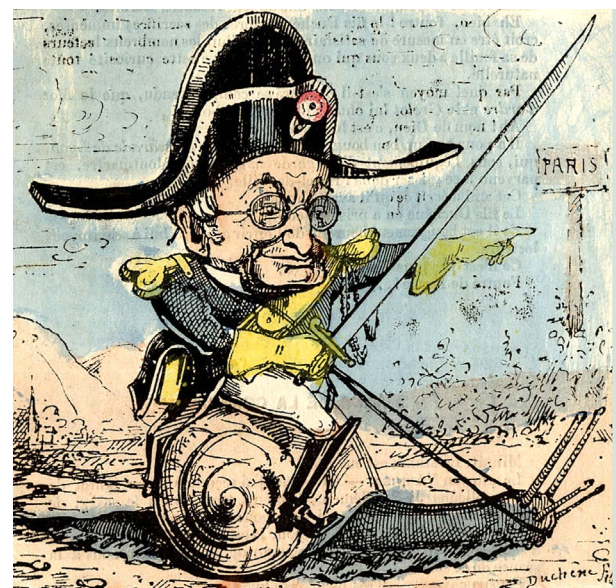


Karl Marx (1818 – 1883)

Bourgeois is a Marxist pejorative for the business-owning class. The term comes from an old French word meaning "castle-dweller."

A **capitalist** is a profit-seeking businessman. Capital is any business asset, be it money, property or equipment.

A **communard** cartoon mocking President Thiers as a would-be Napoleon coming to crush the Paris Commune





A communard barricade built by taking up paving stones and stacking them on and under wagons

Just how their experiment might have gone, the world will never know; for President Thiers didn't wait around to find out. Where the communards saw a grand experiment, he saw only rebels trying to seize his capital. Knowing he would be doomed without Paris, Thiers planned to crush the rebels just as soon as he could gather enough troops.

The communards felt sure they could stop Thiers, for two reasons. First, they figured Thiers' troops would balk at firing on their fellow Frenchmen. Second, Paris had the National Guard to defend it. The National Guard should have been bigger than any army Thiers could assemble; for by law, every Parisian male was automatically enrolled.

The communards turned out to be wrong on both counts. The National Guard was not only smaller than they believed, but also poorly trained compared to Thiers' professional troops. And when push came to shove, Thiers' professionals didn't hesitate to fire on their fellow Frenchmen.

SANGUINARY SEPTETS: The outcome of the communards' miscalculation was a horrible happening called **Bloody**

Week. Starting on May 21, 1871, Thiers' generals led a crushing campaign that killed thousands of communards and captured tens of thousands more. Their losses were so severe that by week's end, the Paris Commune was gone for good. It had lasted just over two months, from March 18 – May 28.

Later communists took instruction from the fate of the Paris Commune. The experience taught them that capitalists wouldn't go down without a fight, nor would they scruple to kill their own countrymen. Communists decided that if they were ever to have their way, then they must be ready to kill too. One who learned this lesson was a Russian communist called **Vladimir Lenin**, whom we'll get to in Chapter 18.

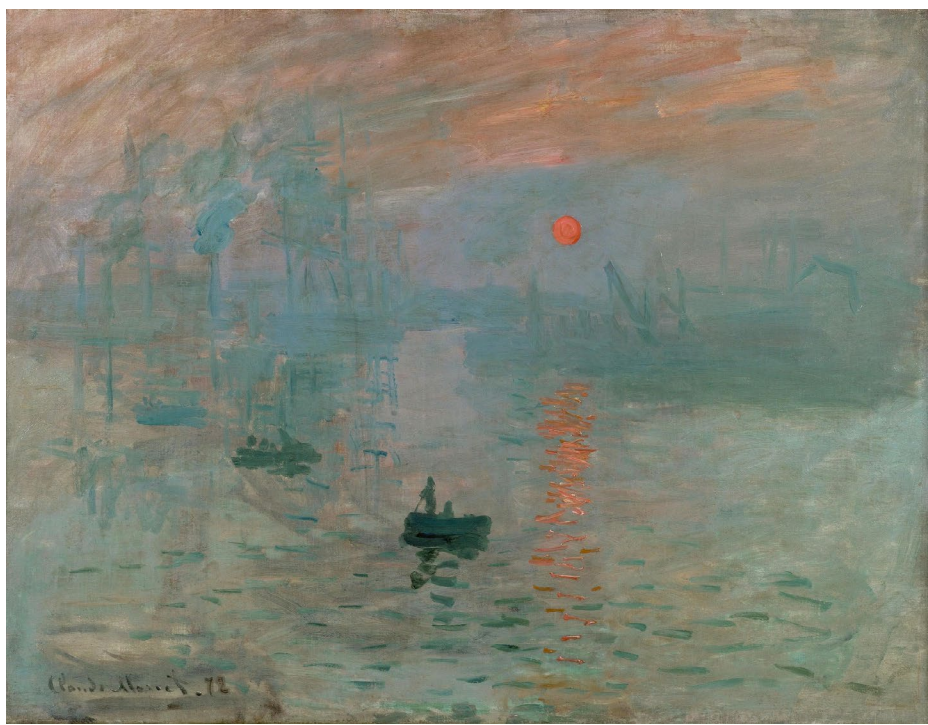
INNOVATIVE IMAGE-MAKERS: The French Impressionists

The era of the Franco-Prussian War and the Paris Commune was also the era of a new movement in the art world. Paris had long been the best place in the world to study art, partly thanks to a set of great art schools called the *Ecole des Beaux-Arts*. Now in the mid-1860s, some of the students there pioneered a new style called **Impressionism**.

With photographs getting clearer every day, the Impressionists saw less need for the detailed realism of their forebears. Instead of obsessing over detail, they focused on conveying impressions and evoking feelings. These are just a few of the many Impressionists who lived and worked in Paris during the latter half of the 1800s:

- **Edouard Manet** (1832 – 1883)
- **Edgar Degas** (1834 – 1917)
- **Claude Monet** (1840 – 1926)
- **Pierre-Auguste Renoir** (1841 – 1919)

"Impression, Sunrise," the Monet painting that gave the movement its name



SPURNED SPIRES: The Eiffel Tower
(Erected 1887 – 1889)

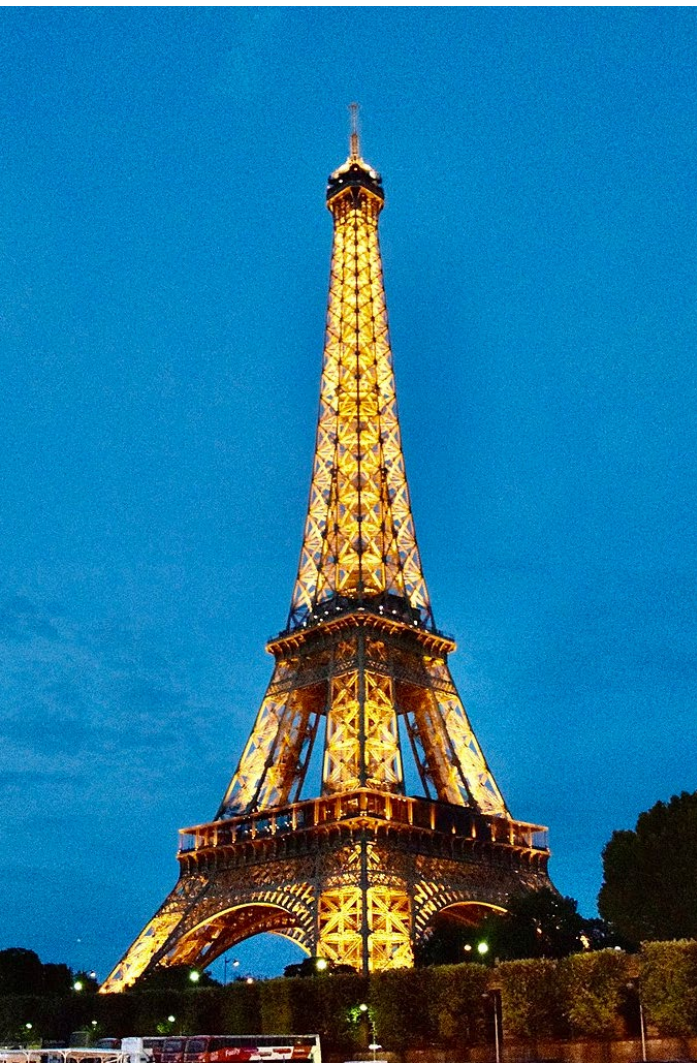
Parisians' deep love of art almost cost them a now-famous landmark. The story started in 1887, when Paris was preparing to host a world's fair called the *Exposition Universelle*. The date of the upcoming exposition, 1889, was particularly important to Parisians; for it marked the 100th anniversary of the French Revolution, which started with the Storming of the Bastille at Paris on July 14, 1789. Wanting something new and impressive to mark the occasion, the city held a competition to see what its artists and designers might come up with.



“Arrival of the Normandy Train” by Claude Monet

The winning design came from engineer Gustave Eiffel, who had recently built the frame for the Statue of Liberty (Ch. 7). Eiffel proposed to build a huge iron tower in the center of the *Champ de Mars*, the Paris park that was to host the exposition. By calling on the strength of iron, he could make his tower the tallest manmade structure in the world—far taller than the tallest before it, the all-masonry Washington Monument. Where the Washington Monument stood only 555 feet tall, the Eiffel Tower would reach a jaw-dropping 984 feet.

The Eiffel Tower in 2014



CRITICAL COMPLAINTS: The hitch in Eiffel's plan was that many Parisians didn't approve of his design. They felt that such a modern-looking tower would clash horribly with the city's older landmarks, like the Cathedral of Notre Dame and the Arc de Triomphe. Bent on killing the project, some 300 prominent Parisians signed a petition that ran something like this: “We, the writers, painters, sculptors, architects and lovers of the beauty of Paris, do protest with all our vigor and all our indignation, in the name of French taste and endangered French art and history, against the useless and monstrous Eiffel Tower...”

Instead of yielding to the angry artists, the city leaders compromised with them. They granted the Eiffel Tower only a limited lease, promising to tear it down after twenty years if Parisians still hated it by then. But instead of hating it, Parisians fell in love with it. It became the city's best-known landmark, as precious as any before it.