

# Railroads: Empire Builders

By Charles W. Darling



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"Let the country but make the railways, and the railways will make the country" (Westwood 8). Those words, published following the 1825 opening of the Stockton and Darlington Railroad in Britain, the world's first public railway, seemed prophetic by the late nineteenth century, when British Empire rail lines penetrated the African continent with the "Cape to Cairo" railroad scheme and Asian rail expansion opened new markets for British manufactured goods. Other European nations soon followed Britain's example, but the country that benefitted the most from railroad empire building was the United States. The fifty years following the Civil War witnessed a rapid nationwide transformation made possible by railroad growth.

Equally important were the workers, many of them immigrants from Ireland and China, who physically built the lines with their brawn, sweat and tears.

Why did the United States leapfrog Great Britain and other European nations in railroad development? Urgent need for land transportation

coupled with cheapness of land and lack of political or economic barriers offset European technological and financial superiority. Above all, the American public enthusiastically endorsed the coming of the "iron horse." Swedish novelist Frederika Bremer, visiting the United States before the Civil War, noted that boys in class amused themselves by drawing locomotives with motion, smoke, and fire. She concluded: "interest in locomotive machinery had a profound connection with life in [this] country" (Heilbroner 36).

Who were the "Empire Builders?" First, they were risk-taking and profit-oriented American businessmen who planned and managed these new ventures. Equally important were the workers, many of them immigrants from Ireland and China, who physically built the lines with their brawn, sweat, and tears. Together, entrepreneurs and laborers were *the* Empire Builders uniting eastern and western lands to form the continental empire of the United States.

"What we want is the best possible line, shortest distance, lowest grades, and least curvature we can build," proclaimed one perceptive railroad planner (Westwood 195). With a bear-like build to sustain him and a lack of trust in his railroad surveyors, this empire builder accompanied them on horseback and planned the route himself. Earlier, this same Canadian entrepreneur had been involved in the building of the Canadian Pacific Railroad (CPR) and had lobbied for the CPR to build south into the Lake Superior region of the United States. Outvoted by other Canadian Pacific board members, he resigned, relocated south of the border, and promptly

began promoting a rival transcontinental line ultimately called the Great Northern Railroad. James Jerome Hill, born in 1838 in Wellington County, Ontario, achieved his dream when the line between St. Paul and Minneapolis, Minnesota, reached the Pacific Northwest by 1893.

James J. Hill was one of many railroad entrepreneurs — in fact, he was a latecomer in the transcontinental railway boom. But his determination to reach the Pacific earned Hill the title “Empire Builder,” the name he gave his luxurious passenger express.

### Beginnings

This empire building began when increasing population coupled with the Louisiana Purchase of 1803 turned American interests westward. With home markets expanding following the War of 1812, improved internal transportation became essential. But early transportation routes—coastal waterways, rivers, and barely adequate roads—either ran predominantly north-south or were barred from western expansion by the Appalachian Mountains. With the population center shifting westward from near Washington, D.C., as of 1810, to slightly west of Athens, Ohio, by 1860, the demand for east-west routes increased. John C. Calhoun, then a strong nationalist as well as an influential South Carolina senator, wrote in 1817: “Let us, then, bind the Republic together with a perfect system of roads and canals” (qtd. in Stover 2).

That same year the New York legislature authorized building a 364 mile Erie Canal, linking the Great Lakes with the Hudson River and ultimately to New York City. Once the canal opened in 1825, that city became the center of westward movement. By 1818, with the completion of the National Road to Wheeling, Virginia, a western land route from Maryland was feasible. Rivers were utilized wherever

possible, and with the development of steamboats, cities like Cincinnati, Pittsburgh, Louisville, and St. Louis prospered.

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These forms of transportation had limitations, however. Highways and turnpikes were crude, rutted, and expensive to maintain. Canals froze over in the winter. Steamboats relied on sufficient river levels free of obstructions, as well as safe boiler pressure. These early empire builders awaited the development of a competitive method of transportation that was safer, faster, and less weather and terrain dependent. The “Iron Horse” and its developers were the true empire builders, for “by stirring the imagination of the country, the railroads further stimulated innovation and change” (Chandler 202).

### Early Rails

The origin of railroads in the United States pre-dates the introduction of the steam engine. These early lines consisted of wooden rails over which horses hauled wagons fitted

with flanged guide wheels. In 1826 the Granite Railway of Quincy, Massachusetts, became the first permanent commercial carrier in the United States, later merging with the Old Colony Railroad, and finally with the New Haven Railroad. A gravity line, it carried granite three miles from quarries to the Neponset River. Teams of horses hauled three wagons at a time over iron-faced wooden rails set five feet apart. Incidentally, the Granite Railroad was the site of the first fatal causality when a passenger touring the line was killed in 1832 (Westwood 19-21).

But these early lines were essentially patchwork railroads, linking rivers to canals, bypassing river fall-lines, or used strictly to haul freight, not people, over short distances. More promising as future empire builders were two railroads, the Baltimore and Ohio and South Carolina’s Charleston and Hamburg. In 1827 Maryland issued a charter to a group of businessmen to build a railroad from Baltimore to the Ohio River with the prospect of tapping Ohio Valley’s resources. Then, on January 15, 1831, the Charleston and Hamburg Railroad began the first regular passenger service in North America, extending six miles from Charleston in what was to become the world’s longest railroad (136 miles) by 1833. Situated on the Savannah River, Hamburg linked Charleston with the western regions of South Carolina and Georgia, carrying both freight and passengers.

### Empire Building

The rail revolution began in the 1850s with the notion of not just linking existing communities together, but building railroads in advance of traffic — a concept that entrepreneurs recognized would develop communities, regions, and even the continent. The demand for capital by railroad construction caused the nation’s money market to centralize in New York City. That symbol of American capitalism,

Wall Street, was one by-product of the railroads (Chandler 202-203). (Private space exploration in the 21st century has a similar stimulating potential.)

During the 1850s the Baltimore and Ohio achieved its goal of reaching the Ohio River at Wheeling, Virginia. On August 1, 1853, the Pennsylvania Railroad extended tracks to Pittsburgh, becoming the B & O's rival in the Ohio Valley. The New York Central was organized by the end of 1853, linking Albany with Buffalo, while its subsidiary, The Pittsburgh & Lake Erie, stretched from Connellsville, Pennsylvania, to Youngstown, Ohio. Charleston, South Carolina, extended its rail lines to Chattanooga and, later, to Memphis, Tennessee. A forerunner of future western routes occurred when the Chicago & Rock Island reached the Mississippi River at Rock Island in 1854, bridging the river two years later. Steamboat companies sued the railroad to dismantle the bridge, claiming it was a dangerous obstruction to river navigation, thus beginning an extended battle between the two conflicting parties. The Rock Island Railroad hired Abraham Lincoln to defend its interests, and eventually the Supreme Court's 1862 ruling favored the railroad (Westwood 7).

Newspaper editor Horace Greeley, the soon-to-be presidential candidate Abraham Lincoln, and many more pundits believed that it would take a century to settle the "Great American Desert," as the Great Plains were labeled in the 19th century. The Iron Horse proved them wrong. In the last dozen states to be admitted to the union (excluding Alaska and Hawaii), the railroad preceded extensive settlement. By 1865 the Great Plains and the Rocky Mountain region had less than 1000 miles of tracks—fifty years later, 90,000 miles!

The word "Pacific" or "Western" was incorporated into the names of many

railroads building in the Great Plains: the Union Pacific, Southern Pacific, Great Western, and Denver & Rio Grande Western.

### The Ties That Bind

New York merchant Asa Whitney proposed a transcontinental railroad to California in the early 1850s. The rise of sectionalism following the Kansas-Nebraska Act's passage in 1854 and the Panic of 1857 delayed the scheme, but in spite of capital and labor shortages during the Civil War, Abraham Lincoln signed the first Pacific Railway Bill on July 1, 1862. Two companies were awarded construction: the Union Pacific Railroad Company westward from Missouri (note the word *Union*) and the Central Pacific eastward from California. For each mile of track constructed, both companies received ten (later twenty) square miles of public lands, alternating in 640-acre sections on either side of the track, as well as a thirty-year government loan up to a maximum of \$48,000 per mile.

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This historic effort was not free of scandal and corruption, one has to acknowledge. Dr. Thomas C. Durant,

medical practitioner, stock manipulator, and key Union Pacific official, authorized a \$60,000 per mile building grant to Herbert M. Hoxie, who represented the Credit Mobilier construction company. Union Pacific stockholders also controlled the Credit Mobilier, which in the hands of Oakes and Oliver Ames, shovel-makers from Massachusetts, distributed shares of Credit Mobilier stock to congressional members where Oakes Ames reportedly said "they will do the most good to us" (Stover 75). Later, a congressional investigation revealed that Union Pacific managers profited \$23,000,000 in bonds, stocks, and cash, while the railroad company was capitalized at \$110,000,000, half of which was watered stock. Similar chicanery plagued the building of the Central Pacific; its extent, however, was never determined due to the "accidental" destruction of company books. But at least the continent was bridged by both railroads, the lines meeting in Utah on May 10, 1869. In cities and towns across the United States, people rejoiced when almost instantaneously they learned of the east-west linkage over electric telegraph's wires, which were a required supplement to land grant railroads.

Five years before the Utah meeting, Congress had chartered a second transcontinental railroad, the Northern Pacific Railroad Company. With a hefty land grant exceeding Union Pacific's, the line eventually connected Minneapolis with Pacific northwest ports, but it had problems. The railroad's banking firm, Jay Cooke and Company, was a victim of the 1873 financial panic, and the Credit Mobilier scandal had soured prospects for congressional aid. Bismarck, Dakota Territory, was the line's western terminus until 1878 when Henry Villard took control. Using New York financial connections, Villard bought control of the Northern Pacific, and by 1883 reached the Pacific Ocean via his Oregon Central Railroad.

Empire-building Pennsylvania Railroad President Thomas A. Scott constructed the Texas and Pacific Railroad from Shreveport, Louisiana, across Texas, to land grant territory in New Mexico and Arizona. With Central Pacific's California owners building a line through southern California and eastward into Arizona, however, Scott realized that litigation costs would offset any land grant profits and sold the T & P to financier Jay Gould. In 1882, at El Paso, Gould's line met the Southern Pacific and another transcontinental route was complete.

Real estate developer Cyrus K. Holliday, founder of Topeka, Kansas, received a charter for the Atchison, Topeka, and Santa Fe in 1859, followed by a three million acre Congressional land grant. At first the railroad was prosperous due to capturing the Chicago-bound cattle trade south of rival lines. Then, open warfare between the Santa Fe and the newly formed Denver and Rio Grande Western over strategic passes through the Rockies curbed profits, but with control of the Raton Pass, the Santa Fe was able to push westward, reaching the Pacific in 1889 (Stover 79-81).

Enter the "Empire Builder," James Jerome Hill. He, along with Scottish Canadian bankers and Hudson's Bay Company businessmen, bought the bankrupt St. Paul and Pacific Railroad intending to connect with the Canadian Pacific at Winnipeg, Canada, as well as building westward in the United States. Hill added branch lines where potential traffic could arise; he gave immigrant farmers cheap tickets in second class cars, called "Zulus," if they would homestead near the rails; he sent agricultural demonstration trains to provide farmers with the latest crop and soil management methods; he presented prize bulls imported from England to Plains farmers to improve the gene pool of their cattle. Hill recognized that the prosperity of his railroad was linked with the prosperity

of the area it served. When the line reached Seattle in July 1893, the Great Northern Railway became the final U.S. transcontinental railroad, and the best, for Hill built well. While the Panic of 1893 and the depression that followed caused other transcontinental lines to face receivership, the Great Northern added trackage and continued regular dividends.

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condition.

Five transcontinental routes were built between the end of the Civil War and the 19th century's close. Construction was complex; engineering problems surpassed those of eastern railroads. Lack of water and trees in the Great Plains required specialized water and lumber trains, while the Rocky Mountains required hordes of workers to dig tunnels and bridges using only primitive explosives to aid picks, shovels, and brute strength.

Financing the railroads was dirty work, too, in a different sense. Government land grants had been a major aid in building transcontinental railroads, but they were controversial

and corruptible. President Grant's Vice President Schuyler Colfax, Speaker James G. Blaine, and Oakes Ames were involved in the Credit Mobilier scandal; in 1884 the Democratic party published a partisan pamphlet, "How the Public Domain has been Squandered by Republican Congresses" (Westwood 179). The speculative skullduggery of Wall Street financier Jay Gould left the Erie, Kansas Pacific, Union Pacific, and Texas and Pacific railways in appalling condition. Nevertheless, land grants united East and West, reduced the shipping costs of goods, created thousands of jobs, and resulted in hundreds of western settlements.

Historian John Stover concluded: "[If] business ethics were low, the completed Pacific railroads were genuine accomplishments which hastened the economic expansion of the entire nation" (Stover 83).

#### Railroad Innovation

In a landmark book, *Business Cycles*, economist Joseph Schumpeter theorized that innovations (in new commodities, new services, new machineries, and so on) stimulate economic change. Railroad empire builders were responsible for three innovations that had enormous long-term consequences.

First, the continental railroad idea preceded California's 1849 gold rush. To build rail lines before developing settlements and traffic was a testament to American ingenuity and enterprise. Each railroad empire builder had been a promoter: "a potential economic agent [who] embodied the dream of developing communities, regions, the continent" (Jenks 214).

Second, railroads became a construction force. They created a producer demand, leading to a healthy price rise and supply increase. While the economy became dislocated to some degree, it was easily offset by the flexibility and innovation of the new

entrepreneurs. Much of the land the railroads covered had not been economically viable; now it was. Labor demand created a need for additional immigration and the wages of railroad and manufacturing workers stimulated the economy and contributed to increased specialization.

While railroads  
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Capital demand also was stimulated by the durable goods needed by railroads—the workers’ tools, the steam engines and cars, the iron and steel rails (for example, 80 percent of American steel went into rails by 1880). This created a multiplier effect on the entire American economy, a feature of modern capitalism. Banking interests met the demand for money capital, with both American and European investors extending credit to meet railroad construction costs. As the influence of these investors grew, railroad decision makers shifted from engineer-promoter to financial-enterpriser, a process that would later affect other enterprises. Thus, railroads were largely responsible for the shift from a merchant dominated capitalism to industrial capitalism and by the early

20th century to financial capitalism (from merchants John Hancock and John Jacob Astor, to industrialists Andrew Carnegie and John D. Rockefeller, to financiers Jay Gould and J. P. Morgan).

Transportation service is the third decisive innovation spurred by railroad development. Railroad employees hauling freight and passengers over a network of tracks not only added income to the nation, but also expanded the whole economy. In 1865 the rail network totaled 35,000 miles, by 1900 almost 200,000 miles, or an average 13 miles per working day during those 35 years. While railroads did not carry freight at less cost than rivers or canals, they were faster and went into areas where water transportation did not exist. (Later, highway trucking did this even more effectively than rail.) Railroads also attracted industries to build facilities centralized in certain areas, i.e., steel in Pittsburgh, rubber in Akron, stockyards in Chicago.

### Conclusion

By 19th century’s end, railroad empire builders were no longer as innovative. Persons who began as employees of railroads, such as Andrew Carnegie, left to establish their own industries, while J. P. Morgan’s railroad reorganization scheme aided in his creation of United States Steel. Nevertheless, the railroads had stirred the imagination of the country, reinforcing the optimistic trait that Americans had possessed almost from the early English settlements. The Iron Horse was, as Professor Leo Marx wrote: “the very embodiment of the Age of Steam: fire, iron, smoke, noise, motion, speed, power” (Marx 202). Alfred D. Chandler, Jr., and Stephen Salsbury in their 1965 monograph, “The Railroads: Innovators in Modern Business,” concluded: “The basic administrative problems which the railroads solved are still central to most large enterprises” (Chandler, Salsbury 257).

“Let the country but make the railways, and the railways will make the country.” That 1825 British observation sums up the crucial role of American railroads in the quest to conquer the continent and create the rapidly evolving American economy that would emerge from an agrarian economic system to become the world’s industrial giant by the year 1916. Ironically, that same year rail mileage peaked, Congress enacted the first federal highway construction act, and “Empire Builder” James Jerome Hill died.

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